

Guideal

SOFTWARE TEST DOCUMENT

(In accordance with IEEE 829 - 2008)

v1.0

Malum

Emre Külah	1881358
Arif Görkem Özer	1881747
Yusuf Mücahit Çetinkaya	1881705
Semih Aktas	1880913

Version Control History:

Version	Primary	Description of	Date
	Author(s)	Version	Completed
1.0	Semih Aktaş Emre Külah Görkem Özer Yusuf Çetinkaya	Software Requirements Specifications	08.01.2016

Table of Contents

1. INTRODUCTION		
1.1 Scope	1	
1.2 Purpose	1	
1.3 Intended Audience	1	
1.4 Definitions, Acronyms and Abbre	eviations2	
1.5. REFERENCES	3	6
2. System Overview	3	6
3. System Architecture	4	ŀ
4. Design Description Information Co	ontent5	
4.1 Introduction	5)
4.2 SDD Identification	5)
4.3 Design Stakeholders and Teir Co	ncerns5	
4.4 Design Views	5)
4.5 Design Viewpoints	5)
4.6 Design Elements	5)
4.7 Design Rationale	6)
4.8 Design Languages)
5. Design Viewpoints)
5.1 Context Viewpoints	7	
5.2 Logical Viewpoint		0
5.3 Information Viewpoint		0
5.4 Interaction Viewpoint		0
5.5 State Dynmaics Viewpoint		0
5.6 Interface Viewpoint		0
Appendix A		3
Appendix B		3
Appendix C		4
Appendix D		4
Appendix E		5
Appendix F		5
Appendix G		6
Appendix H		6
		1
Appendix J		ð 20
		9
	δ	
	٥٥	U.
Appendix N	٥٥)]
Appendix D	٥٥)]))
Appendix P	δ	iZ no
Appendix R	٥ ە)Z) 2
Appendix 5	0 o).) 12
Appendix Class Disgram I	٥ ه	N N
Appendix Class Diagram II	٥ ه	4
Appendix Class Diagram III	٥ ه)4 2E
Appendix Class Diagram IV	۰٥ ٥	10
Appendix Class Diagram V	۰٥ ه	7
Appendix Class Diagram v	ŏ) [

Table of Figures

Figure-2.1: Deployment Diagram	·	3
Figure-3.1: System Architecture		4
Figure-5.6.2: Login Page		62
Figure-5.6.3: Login Page after Logout		63
Figure-5.6.4: Registration Page		63
Figure-5.6.5: Update User Page		63
Figure-5.6.6: User List Page		64
Figure-5.6.7: User Profile Page		54
Figure-5.6.8: Assign Department to User Page		ô 4
Figure-5.6.9: Assign User Group to User Page	6	64
Figure-5.6.10: Assign Role to User Page	6	4
Figure-5.6.11: Add User Group Page		65
Figure-5.6.12: Update User Group Page		65
Figure-5.6.13: User Group List Page		65
Figure-5.6.14: User Group Profile Page		65
Figure-5.6.15: Assign User to User Group Page		66
Figure-5.6.16: Role List Page		66
Figure-5.6.17: Add Department Page		67
Figure-5.6.18: Update Department Page		67
Figure-5.6.19: Department List Page		67
Figure-5.6.20: Department Profile Page		67
Figure-5.6.21: Add Training Definition Page		67
Figure-5.6.22: Update Training Definition Page		67
Figure-5.6.23: Training Definition List Page		68
Figure-5.6.24: Training Definition Profile Page		8
Figure-5.6.25: Add Training Page		68
Figure-5.6.26: Update Training Page		68
Figure-5.6.27: Training List Page		68
Figure-5.6.28: Training Profile Page		68
Figure-5.6.29: Add Subscriber Page		69
Figure-5.6.30: Subscriber List Page		69
Figure-5.6.31: Add Task Type Page		69
Figure-5.6.32: Update Task Type Page		69
Figure-5.6.33: Task Type List Page		69
Figure-5.6.34: Add Term Page		70
Figure-5.6.35: Update Term Page		70
Figure-5.6.36: Term List Page		70
Figure-5.6.37: Add Measurement Set Page		71
Figure-5.6.38: Measurement Set List Page		71
Figure-5.6.39: Add Measurement Criteria Page		71
Figure-5.6.40: Measurement Criteria List Page	7	'1
Figure-5.6.41: Grade Page		72

1. INTRODUCTION

This document is a Software Design Document for the Web Application which namely "Guideal". The document is prepared by the following IEEE conventions for software design document. This document includes all the functions and specifications with their explanations to solve related problems as a project of METU CENG department.

1.1 SCOPE

Guideal is learning management system web application. It is basically keep track of trainings, trainers and trainees according to measure their success. It is platform that helps admins, supervisors, which are control mechanism for given measurement system, according to keep track of situation. The scope of this document is design issues of Guideal which are where Guideal is deployed, what technologies are used, data structure of Guideal and interaction flow of Guideal.

1.2 PURPOSE

Purpose of this software design document is providing complete description of the features which will be implemented in smart learning management system of Guideal.

This document aims to describe and visualize the design and architecture of Guideal by using different viewpoints and describe the application system which is structured to meet the needs specified in SRS document. This document will be the primary reference for the implementation phase. In addition, this document includes class hierarchies and interactions, data flow and design, algorithmic models, design constraints and restrictions user interface designs and design concerns In short, this document is meant to equip the reader with a solid understanding of the inner workings of Guideal application.

1.3 INTENDED AUDIENCE

This document aims to inform:

Developers: With the information in this document, developers can easily understand the software and it helps developers to improve the current project features or add new features to existing system.

Testers: With the information in this document, testers can find some bugs for their testing strategy. Without running application, testers can easily find the design bugs.

Users: By providing this document to end-users, users can easily form opinions about how to use the software. Users are people who are in any kind of training which include measurement system.

1.4 DEFINITIONS, ACRONYMS AND ABBREVIATIONS

Term	Definitions
Guideal	A system that provide a platform to institutions to track trainings and users' success status to recommend new courses & fields to them.
Role	Privilage which is given to users, required to do things.
User group	Group that users, which have common roles, attend.
Training	A training that includes subscribers, task sets.
Subscriber	User that subscribe a training. Subscribers can be in type: Trainer, Trainee, Moderator, Spectator.
Trainer	Trainer of a training.
Trainee	Subscriber whose tasks (assignments) are graded and measured.
Moderator	Moderator of the training, who helps trainer in task create, update, delete operations.
Spectator	Subscriber that follows training content but his/her tasks are not graded.
Task Set	A set which gathers the tasks in it. A task set can be followed by more than one training.
Task	A task which is expected to done by trainee of a training which follows related task set.(e.g homework-1)
Task Unit	Smallest part that can be measured. Located in a task.(e.g question-1)
Measurement Set	A set consist of measurement criteria. It is basically the name of standart.(e.g ABET)
Measurement Criteria	The criteria that is wanted to be measured for trainees.(e.g pid-12)
Term	The part of a time that is system is actively used.

1.5 REFERENCES

IEEE. IEEE Std. 830-1998 IEEE Recommended Practice for Software Design Document. IEEE Computer Society, 1998.

2. SYSTEM OVERVIEW



Figure 2.1: Deployment Diagram

This chapter of the SDD is about system overview of the project. The deployment diagram of Guideal is provided in **Figure 2.1**.

System basically based on Guideal center which includes WebServer, CRUD operator, UserSuccessStatistics analyzer, Hibernate, API, GradeAdvisor, Exam Preparer.

PluginCenter, database and WebServer are external main deploy areas for Guideal.

3. SYSTEM ARCHITECTURE



Figure 3.1: System Hierarchy

In this scope system architecture of Guideal is described. MVC model is used for class hierarchy. As you can see **Figure 3.1** Controller, Service and DAO classes are main packages for developing process.

4. DESIGN DESCRIPTION INFORMATION CONTENT

4.1 INTRODUCTION

Up to now general view, deployments of components and reasons of why a specific component is used has been clarified in second and third sections. Without getting into detail, external view and explanation is given. Hereafter, the interior and detailed design will be explained.

4.2. SDD IDENTIFICATION

This document is a first version of System Design Description for this project. This SDD report prepared based on IEEE 1016-2009 standards. Star UML is used for drawing diagrams. Organization of the project team and date of the report are given in cover page of SDD. In the first section an overview of SDD is given. Lastly, for the design viewpoints including context, composition, logical, information, patterns use, interface, interaction, and resource viewpoints refer to the section 5.

4.3 DESIGN STAKEHOLDERS AND THEIR CONCERNS

Design stakeholders are the developer team of this project, their advisors and supervisors. Our stakeholders' concerns can be listed as, the implementation should be safe and maintainable, the interface shall be easy and charming to read and use. The functionalities should work without any errors. Server can carry whole users at the one and same time. Database should be simple and efficient. Finally implementation should be open to new components and reusable.

4.4 DESIGN VIEWS

Representing the diagrams of view, UML is used. Design views of this SDD are design rational, contextual, composition, interface, logical and interaction views. These design views are governed by design viewpoints that are explained in chapter 5.

4.5 DESIGN VIEWPOINTS

There are different viewpoints of this project which will be explained in the next sections. Each viewpoint will be visualized with diagrams.

4.6 DESIGN ELEMENTS

• Guideal uses a maven repository for server need.

- Mysql database is used as database.
- For database access, Hibernate is used.
- The application will be implemented in java.
- Netbeans will be used as IDE.

4.7 DESIGN RATIONALE

In Guideal design is based on MVC pattern. Model classes which are refers DAO and service package, controller classes which are refers Controller Package and view classes are refers WEB package.

Design choices are made according to maintain, reliability, performance and selfsustainability.

4.8 DESIGN LANGUAGES

In this project, Unified Modeling Language (UML) is selected as a part of design viewpoint and it will be used for clarifying design viewpoints.

5. DESIGN VIEWPOINTS

In this chapter, the interior view-points of the Guideal are explained in detail. During this section, UML diagrams will be used to increase understandability.

5.1 CONTEXT VIEWPOINTS

5.1 Functions

In this section, the fundamental actions that have to take place in the software in accepting and processing the inputs and in processing and generating the outputs are defined. Usecase diagrams are listed in A to I appendices

- C			
	1	1	
J.			LUSIII
-		-	

Use Case Name	UC001_login
XRef	
Actor	Users who have has login role
Preconditions	The url should be known by users
Trigger	This use case is initiated when user presses "Login" button
Basic Flow	 System provides "Username" and "Password" fields to user. The user fills these fields The user presses the "Login" button. System sends those information to Database and checks. System redirects user to the home page
Exception Flow	If the database cannot match username or password with its records or if user don't have login role, then system asks the user to enter correct information
Post conditions	User logged in and is redirected to home page

5.1.1.1 Functional Requirement

User should enter his/her username to the "username" field.

5.1.1.2 Functional Requirement

User should enter his/her password to the "password" field.

5.1.1.3 Functional Requirement

After validating username and password, system shell check the username and password information with database and if user is registered, then checks the roles of the user.

5.1.1.4 Functional Requirement

System redirects the user to home page when the user presses "Login" button.

5.1.1.5 Functional Requirement

System wants to correct username and password when the user presses "Login" button if there is any error such validation, database control.

5.1.2 View Profile

Use Case Name	UC002_View Profile			
Actor	Users who have has "ROLE_CAN_VIEW_USER_PROFILES"			
Preconditions	The url should be known by users			
Trigger	This use case is initiated when user presses one of the username from user list			
Basic Flow	 System should redirect user to desired user page System should take user information from database and show them Name & Surname Username Email Optional Email Group names that user is registered Departments that user is registered 			
Post conditions	The user is redirected to desired user profile page and see related information about desired user			

5.1.2.1 Functional Requirement

System should check user roles. User should have "ROLE_CAN_VIEW_USER_PROFILE" role.

5.1.2.2 Functional Requirement

System should take user information from database.

That information:

- 1. Name & Surname
- 2. Username
- 3. Email
- 4. Optional Email
- 5. Group names that user is registered
- 6. Departments that user is registered

5.1.2.3 Functional Requirement

System should redirect user to desired user profile page and show related information. **5.1.3 Logout**

Use Case Name	UC003_Logout		
Trigger	User presses "logout" button		
Basic Flow	 User presses "logout" button System should redirect user to "home" page 		
Exception Flow			
Post conditions	The user is redirected to "home" page and user logged out.		

5.5.6 Functional Requirement

System should provide logout button

5.1.5.1 Functional Requirement

When user presses logout button, system shell logged out him and redirect user to "home Page".

5.2.4 Add User

Use Case Name	UC101_Add User
Actor	Users who have has "ROLE_CAN_REGISTER_USER"
Preconditions	The url should be known by users
Trigger	This use case is initiated when user presses "Add" or "Continue Adding" button
Basic Flow	 System provides "Username", "Password", "Name", "Surname", "E-mail", "Optional- Email" and "Picture" fields to user. The user fills these fields. The user presses the "Add" or "Continue Adding" button. System sends those information to Database and saves. System redirects user to the user profile page or register page.
Exception Flow	If the username already registered then system sends exception If "E-mail", "name", "surname", "username" or "password" one of these fields is empty then system sends exception
Post conditions	Desired user is registered and user is redirected to register page or user profile

5.2.4.1 Functional Requirement

System should check user roles. User should have "ROLE_CAN_REGISTER_USER" role.

5.2.4.2 Functional Requirement

User should fill "Username", "Password", "Name", "Surname", "E-mail", "Optional- Email" and "Picture" fields.

5.2.4.3 Functional Requirement

System should validate filled fields. Username should be unique in Database. Password should contain at least 8 characters. Name and surname field must not be empty. Email regex format : _*@_* Email field must not be empty. Optional E-mail format : _*@_* It can be null.

5.2.4.4 Functional Requirement

System should save that user in database.

5.2.4.5 Functional Requirement

System should redirect user to user register page if user presses "Continue Adding" button.

5.2.4.6 Functional Requirement

System should redirect user to user page which was added if user presses "Add" button.

5.2.1.7 Functional Requirement

System should show exception message if there is any error.

Use Case Name	UC102_Add Department			
Actor	Users who have has "ROLE_CAN_ADD_DEPARTMENT"			
Preconditions	ſhe url should be known by users			
Trigger	This use case is initiated when user presses "Add" or "Continue Adding" button			
Basic Flow	 System provides "Department Name" and "Parent Department" fields to user. The user fills these fields. The user presses the "Add" or "Continue Adding" button. System sends these information to Database and saves. System redirects user to the department profile page or add department page. 			
Exception Flow	If department name is empty then system sends exception			
Post conditions	Desired department is registered and user is redirected to add department page or department profile			

5.2.5 Add Department

5.2.5.1 Functional Requirement

System should check user roles. User should have "ROLE_CAN_ADD_DEPARTMENT" role.

5.2.5.2 Functional Requirement

System should get department list from database for "Parent Department" field.

5.2.5.3 Functional Requirement

System should validate department name. It must not be empty It will be string.

5.2.5.4 Functional Requirement

System should save that department in database.

5.2.5.5 Functional Requirement

System should redirect user to add department page if user presses "Continue Adding" button.

5.2.5.6 Functional Requirement

System should redirect user to department profile which was added if user presses "Add" button.

5.2.5.7 Functional Requirement

System should show exception message if there is any error.

5.2	6	Add	Usergroup)
-----	---	-----	-----------	---

Use Case Name	UC103_Add Usergroup
Preconditions	The url should be known by users
Trigger	This use case is initiated when user presses "Add" or "Continue Adding" button
Basic Flow	 System provides "Group Name" field and role list to user. The user fills "Group Name" field and selects roles from role list The user presses the "Add" or "Continue Adding" button. System sends these information to Database and saves. System redirects user to the usergroup profile page or add usergroup page.
Exception Flow	If usergroup name is empty then system sends exception message
Post conditions	Desired usergorup is registered and user is redirected to add usergroup page or usergroup profile

5.2.6.1 Functional Requirement

System should check user roles. User should have "ROLE_CAN_ADD_USERGROUP" role.

5.2.6.2 Functional Requirement

System should get role list from database.

5.2.6.3 Functional Requirement

System should validate usergroup name. It must not be empty. It will be string.

5.2.6.4 Functional Requirement

System should save that usergroup in database.

5.2.6.5 Functional Requirement

System should redirect user to add usergroup page if user presses "Continue Adding" button.

5.2.6.6 Functional Requirement

System should redirect user to usergroup profile which was added if user presses "Add" button.

5.2.6.7 Functional Requirement

System should show exception message if there is any error.

5.2.7 Add Training Definition	
-------------------------------	--

Use Case Name	UC104_Add Training Definition	
Actor	Users who have has "ROLE_CAN_ADD_TRAINING_DEFINITION"	
Preconditions	The url should be known by users	
Trigger	This use case is initiated when user presses "Add" or "Continue Adding" button	
Basic Flow	 System provides "Training Code", "Name" and "Description" fields to user. The user fills these fields. The user presses the "Add" or "Continue Adding" button. System sends these information to Database and saves. System redirects user to the training definition profile page or add training definition page. 	
Exception Flow	If training code is not integer or name field is empty then system sends exception	
Post conditions	Desired training definition is registered and user is redirected to add training definition page or training definition profile	

5.2.7.1 Functional Requirement

System should check user roles. User should have "ROLE_CAN_ADD_TRAINING_DEFINITION" role.

5.2.7.2 Functional Requirement

System should provide "Training Code", "Name" and "Description" fields.

5.2.7.3 Functional Requirement

System should validate Training Code field should be integer. Name field should be string. Description field should has text editor.

5.2.7.4 Functional Requirement

System should save that training definition in database.

5.2.7.5 Functional Requirement

System should redirect user to add training definition page if user presses "Continue Adding" button.

5.2.7.6 Functional Requirement

System should redirect user to training definition profile which was added if user presses "Add" button.

5.2.7.7 Functional Requirement

System should show exception message if there is any error.

5.2.8 Add Term

Use Case Name	UC105_Add Term
Actor	Users who have has "ROLE_CAN_ADD_TERM"
Preconditions	The url should be known by users
Trigger	This use case is initiated when user presses "Add" button
Basic Flow	 System provides "Name" field and "Active" selectable field to user. The user fills these fields. The user presses the "Add" or "Continue Adding" button. System sends those information to Database and saves. System redirects user to add term page.
Exception Flow	If name field is empty then system sends exception
Post conditions	Desired term is registered and user is redirected to add term page

5.2.8.1 Functional Requirement

System should check user roles. User should have "ROLE_CAN_ADD_TERM" role.

5.2.8.2 Functional Requirement

System should provide "Name" and "active" fields.

5.2.8.3 Functional Requirement

Name field should be string. Active field should be selectable field.

5.2.8.4 Functional Requirement

System should save that term in database.

If active field is filled, then system updates the term ,which was already active, to inactive. (In database, there must be just one active term)

5.2.8.5 Functional Requirement

System should redirect user to add term page when user presses "Add" button.

5.2.8.6 Functional Requirement

System should show exception message if there is any error.

5.2.9 Add Training

Use Case Name	UC106_Add Training
Actor	Users who have has "ROLE_CAN_ADD_TRAINING"
Preconditions	The url should be known by users
Trigger	This use case is initiated when user presses "Add" button
Basic Flow	 System provides "Training Definition", "Trainer", "Section" and "Term" fields to user. The user fills these fields. The user presses the "Add" or "Continue Adding" button. System sends these information to Database and saves. System redirects user to training profile page.
Exception Flow	If section field is not integer then system sends exception
Post conditions	Desired training is registered and user is redirected to training profile

5.2.9.1 Functional Requirement

System should check user roles. User should have "ROLE_CAN_ADD_TRAINING" role.

5.2.9.2 Functional Requirement

System should provide "Training Definition", "Trainer", "Section" "Term" fields. For "Training Definition" field system should take training definitions from database For "Trainer" field system should take users from database For "Term" field system should take terms from database

5.2.9.3 Functional Requirement

System should validate "Section" field. It must be integer.

5.2.9.4 Functional Requirement

System should save that training in database.

5.2.9.5 Functional Requirement

System should redirect user to training profile which was added if user presses "Add" button.

5.2.9.6 Functional Requirement

System should show exception message if there is any error.

1	
Use Case Name	UC107_Add Task Type
Actor	Users who have has "ROLE_CAN_ADD_TASK_TYPE"
Preconditions	The url should be known by users
Trigger	This use case is initiated when user presses "Add" button
Basic Flow	 System provides "Name" field to user. The user fills that field. The user presses the "Add" button. System sends these information to Database and saves. System redirects user to add task type page.
Exception Flow	If name field is empty then system sends exception
Post conditions	Desired task type is registered and user is redirected to add task type page

5.2.10 Add Task Type

5.2.10.1 Functional Requirement

System should check user roles. User should have "ROLE_CAN_ADD_TASK_TYPE" role.

5.2.10.2 Functional Requirement

User should fill "Name" field.

5.2.10.3 Functional Requirement

System should validate filled field. Name should not be empty and it will be string

5.2.10.4 Functional Requirement

System should save that task type in database.

5.2.10.5 Functional Requirement

System should redirect user to add task type page, if user presses "Add" button.

5.2.10.6 Functional Requirement

System should show exception message if there is any error.

5.2.11 Add Measurement Set

Use Case Name	UC108_Add Measurement Set	
Actor	Users who have has "ROLE_CAN_ADD_MEASUREMENT_SET"	
Preconditions	The url should be known by users	
Trigger	This use case is initiated when user presses "Add" or "Continue Adding" button	
Basic Flow	 System provides "Measurement Set Name" and "Parent Measurement Set" fields to user. The user fills that field. The user presses the "Add" or "Continue Adding" button. System sends these information to Database and saves. System redirects user to add measurement set page or measurement set profile which was added. 	
Exception Flow	If measurement Set Name field is empty then system sends exception	
Post conditions	Desired measurement set is registered and user is redirected to add measurement set page or measurement set profile which was added	

5.2.11.1 Functional Requirement

System should check user roles. User should have "ROLE_CAN_ADD_MEASUREMENT_SET" role.

5.2.11.2 Functional Requirement

System should provide "Name" and "Parent Measurement Set" fields For "Parent Measurement Set" field, system should get measurement sets from database

5.2.11.3 Functional Requirement

System should validate filled field. Name should not be empty and it will be string

5.2.11.4 Functional Requirement

System should save that measurement set in database.

5.2.11.5 Functional Requirement

System should redirect user to add measurement set profile page which was added, if user presses "Add" button.

5.2.11.6 Functional Requirement

System should redirect user to add measurement set page, if user presses "Continue Adding" button.

5.2.11.7 Functional Requirement

System should show exception message if there is any error.

5.2.12 Add Measurement Criteria

Use Case Name	UC109_Add Measurement Criteria
Actor	Users who have has "ROLE_CAN_ADD_MEASUREMENT_CRITERIA"
Preconditions	The url should be known by users
Trigger	This use case is initiated when user presses "Add" or "Continue Adding" button
Basic Flow	 System provides "Description", "Measurement Set" and "Parent Measurement Criteria" fields to user. The user fills that field. The user presses the "Add" or "Continue Adding" button. System sends these information to Database and saves. System redirects user to add measurement criteria page or measurement criteria profile which was added.
Exception Flow	
Post conditions	Desired measurement criteria is registered and user is redirected to add measurement criteria page or measurement criteria profile which was added

5.2.12.1 Functional Requirement

System should check user roles. User should have "ROLE_CAN_ADD_MEASUREMENT_CRITERIA" role.

5.2.12.2 Functional Requirement

System should provide "Description", "Measurement Set" and "Parent Measurement Criteria" fields

"Description" field must has text editor.

For "Measurement Set" field, system should get measurement sets from database For "Parent Measurement Criteria" field, system should get measurement criteria from database

5.2.12.3 Functional Requirement

System should validate filled field.

5.2.12.4 Functional Requirement

System should save those measurement criteria in database.

5.2.12.5 Functional Requirement

System should redirect user to add measurement criteria profile page which was added, if user presses "Add" button.

5.2.12.6 Functional Requirement

System should redirect user to add measurement criteria page, if user presses "Continue Adding" button.

5.2.12.7 Functional Requirement

System should show exception message if there is any error.

5.2.13 List Users

Use Case Name	UC201_List Users
Actor	Users who have is logged in
Preconditions	The url should be known by users
Trigger	This use case is initiated when user enters user list page
Basic Flow	 System gets registered users list from database System shows registered users in table which column names are "Username", "Email", " Email 2"
Exception Flow	
Post conditions	User reach user list

5.2.13.1 Functional Requirement

System should check user is logged in or not.

5.2.15.2 Functional Requirement

System gets user list from database.

5.2.13.3 Functional Requirement

System shows users in table which has columns namely "Username", "E-Mail" and "E-Mail2"

5.2.14 List Usergroups

Use Case Name	UC202_List Usergroups
Actor	Users who have is logged in
Preconditions	The url should be known by users
Trigger	This use case is initiated when user enters usergroup list page
Basic Flow	 System gets registered usergroups list from database System shows registered usergroups in table which column name is "Name"
Exception Flow	
Post conditions	User reach usergroup list

5.2.14.1 Functional Requirement

System should check user is logged in or not.

5.2.14.2 Functional Requirement

System gets usergroup list from database.

5.2.14.3 Functional Requirement

System shows usergroups in table which has column namely "Name"

5.2.15 List Roles

Use Case Name	UC203_List Roles
Actor	Users who have is logged in
Preconditions	The url should be known by users
Trigger	This use case is initiated when user enters role list page
Basic Flow	 System gets registered role list from database System shows registered roles in table which column names are "Role" and "Description"
Exception Flow	
Post conditions	User reach role list

5.2.15.1 Functional Requirement

System should check user is logged in or not.

5.2.15.2 Functional Requirement

System gets role list from database.

5.2.15.3 Functional Requirement

System shows roles in table which has columns namely "role and "Description"

5.2.16 List Departments

Use Case Name	UC204_List Departments
Actor	Users who have is logged in
Preconditions	The url should be known by users
Trigger	This use case is initiated when user enters department list page
Basic Flow	 System gets registered department list from database System shows registered departments names System should provide search property.
Exception Flow	
Post conditions	User reach department list

5.2.16.1 Functional Requirement

System should check user is logged in or not.

5.2.16.2 Functional Requirement

System gets department list from database.

5.2.16.3 Functional Requirement

System shows departments names.

5.2.16.4 Functional Requirement

System should provide search tool. It should filter departments according to given string.

5.2.17 List Training Definitions

Use Case Name	UC205_List Training Definitions
Actor	Users who have is logged in
Preconditions	The url should be known by users
Trigger	This use case is initiated when user enters training definition list page
Basic Flow	 System gets registered training definition list from database System shows registered training definitions in table which has columns namely "Training Code" and "Name"
Exception Flow	
Post conditions	User reach training definition list

5.2.17.1 Functional Requirement

System should check user is logged in or not.

5.2.17.2 Functional Requirement

System gets training definition list from database.

5.2.17.3 Functional Requirement

System shows training definition in table which has columns namely "Training Code" and "Name".

5.2.18 List Trainings

Use Case Name	UC206_List Trainings
Actor	Users who have is logged in
Preconditions	The url should be known by users
Trigger	This use case is initiated when user enters trainings list page
Basic Flow	 System gets registered training list from database System shows registered trainings in table which has columns namely "Training Definition", "Trainer", "Section", "Task Set" and "Term"
Exception Flow	
Post conditions	User reach training list

5.2.18.1 Functional Requirement

System should check user is logged in or not.

5.2.18.2 Functional Requirement

System gets training list from database.

5.2.18.3 Functional Requirement

System shows registered trainings in table which has columns namely "Training Definition", "Trainer", "Section", "Task Set" and "Term.

5.2.19 List Task Types

Use Case Name	UC207_List Task Types
Actor	Users who have is logged in
Preconditions	The url should be known by users
Trigger	This use case is initiated when user enters task type list page
Basic Flow	 System gets registered task type list from database System shows registered task types in table which has column namely "Name"
Exception Flow	
Post conditions	User reach task type list

5.2.19.1 Functional Requirement

System should check user is logged in or not.

5.2.19.2 Functional Requirement

System gets task type list from database.

5.2.19.3 Functional Requirement

System shows registered task types in table which has column namely "Name"

5.2.20 List Terms

Use Case Name	UC208_List Terms
Actor	Users who have is logged in
Preconditions	The url should be known by users
Trigger	This use case is initiated when user enters term list page
Basic Flow	 System gets registered term list from database System shows registered terms in table which has column namely "Name". Registered terms shell be split according to active and inactive terms
Exception Flow	
Post conditions	User reach term list

5.2.20.1 Functional Requirement

System should check user is logged in or not.

5.2.20.2 Functional Requirement

System gets term list from database.

5.2.20.3 Functional Requirement

System shell be split terms according to active or inactive and then shows them in table which has column namely "Name".

5.2.21 List Measurement Sets

Use Case Name	UC209_List Measurement Sets
Actor	Users who have is logged in
Preconditions	The url should be known by users
Trigger	This use case is initiated when user enters measurement set list page
Basic Flow	 System gets registered measurement set list from database System shows registered measurement set in table which has column namely "Name" and "Parent Measurement Set".
Exception Flow	
Post conditions	User reach measurement set list

5.2.21.1 Functional Requirement

System should check user is logged in or not.

5.2.21.2 Functional Requirement

System gets measurement set list from database.

5.2.21.3 Functional Requirement

System shows measurement sets in table which has column namely "Name" and "Parent Measurement Set".

5.2.22 List Measurement Criteria

Use Case Name	UC210_List Measurement Criteria
Actor	Users who have is logged in
Preconditions	The url should be known by users
Trigger	This use case is initiated when user enters measurement criteria list page
Basic Flow	 System gets registered measurement criteria list from database System shows registered measurement criteria in table which has column namely "Id", "Parent Measurement Criteria" and "Parent Measurement Set".
Exception Flow	
Post conditions	User reach measurement criteria list

5.2.22.1 Functional Requirement

System should check user is logged in or not.

5.2.22.2 Functional Requirement

System gets measurement criteria list from database.

5.2.22.3 Functional Requirement

System shows measurement criteria in table which has column namely "Id", "Parent Measurement Criteria" and "Parent Measurement Set".

5.2.23 Assign User to Department

Use Case Name	UC301_Assign User to Department
Actor	Users who have "ROLE_ADMIN" role
Preconditions	The url should be known by users
Trigger	This use case is initiated when user enters "Add Member" page from department profile
Basic Flow	 System gets registered users list from database System splits them to already registered and not registered to the desired department System provide "Assign", "Remove" buttons The user arrange users by helping "Assign" and "Remove button" The user press "Apply" button to save to database
Exception Flow	
Post conditions	The new users of department will be arranged and saved to database

5.2.23.1 Functional Requirement

System should check user have "ROLE_ADMIN" role

5.2.25.2 Functional Requirement

System gets user list from database and split them to registered and not registered to desired department

5.2.23.3 Functional Requirement

System provides "Assign", "Remove" and "Apply" buttons. "Assign" button is provided for assign users to desired department. "Remove" button is provided for remove users from desired department. "Apply" button is provided for save to database

5.2.23.4 Functional Requirement

System shell save the final picture of department. Related database table: DepartmentUser

5.2.24 Assign User to Usergroup

Use Case Name	UC302_Assign User To Usergroup
Actor	Users who have "ROLE_ADMIN" role
Preconditions	The url should be known by users
Trigger	This use case is initiated when user enters "Add Member" page from usergorup profile
Basic Flow	 System gets registered users list from database System splits them to already registered and not registered to the desired usergorup System provide "Assign", "Remove" buttons The user arrange users by helping "Assign" and "Remove button" The user press "Apply" button to save to database
Exception Flow	
Post conditions	The new users of usergorup will be arranged and saved to database

5.2.24.1 Functional Requirement

System should check user have "ROLE_ADMIN" role

5.2.24.2 Functional Requirement

System gets user list from database and split them to registered and not registered to desired usergroup

5.2.24.3 Functional Requirement

System provides "Assign", "Remove" and "Apply" buttons. "Assign" button is provided for assign users to desired usergroup. "Remove" button is provided for remove users from desired usergroup. "Apply" button is provided for save to database

5.2.24.4 Functional Requirement

System shell save the final picture of usergroup. Related database table: UsergroupUser

5.2.25 Assign User to Training

Use Case Name	UC303_Assign User To Training
Actor	Users who have "ROLE_ADMIN" role
Preconditions	The url should be known by users
Trigger	This use case is initiated when user enters "Edit Subscriber" page from Training profile
Basic Flow	 System gets registered users list from database System splits them to Subscribe Type and already registered and not registered to the desired Training. System provide "Assign", "Remove" buttons The user arrange users by helping "Assign" and "Remove button" The user press "Apply" button to save to database
Exception Flow	
Post conditions	The new users of Training will be arranged and saved to database

5.2.25.1 Functional Requirement

System should check user have "ROLE_ADMIN" role

5.2.25.2 Functional Requirement

System gets user list from database and split them to Subscriber Type and registered and not registered to desired Training

Subscribe Types: Trainers, Moderators, Trainee, Spectator

5.2.25.3 Functional Requirement

System provides "Assign", "Remove" and "Apply" buttons. "Assign" button is provided for assign users to desired Training. "Remove" button is provided for remove users from desired Training. "Apply" button is provided for save to database

5.2.25.4 Functional Requirement

System shell save the final picture of Training.

Related database table: Training, Subscribers

If Trainers of the training is changed then the field of trainer from Training table will be updated.

If the other type of subscribers is edited then the Subscriber table will be updated.

5.2.26 Assign Grade To Subscriber

Use Case Name	UC304_Assign Grade To Subscriber
Actor	Users who have "ROLE_ADMIN" role or moderator of training which is subscriber is registered.
Preconditions	The url should be known by users
Trigger	This use case is initiated when user enters "Add Grade" page from Task profile
Basic Flow	 System gets subscribers ,which are registered training that related to the task, list from database System provides input boxes for each subscriber for each task. The user enters grades in that boxes The user press "Apply" button to save to database
Exception Flow	Input boxes must be filled with integer, otherwise system will sends exception message
Post conditions	The grades of given subscriber are saved to database in "Grade" table

5.2.26.1 Functional Requirement

System should check user have ROLE_ADMIN" role or moderator of training which is subscriber is registered.

5.2.26.2 Functional Requirement

System gets subscribers, which are registered training that related to the task, list from database.

5.2.26.3 Functional Requirement

For each subscriber, system provides input boxes and system provide "Apply" button. "Apply" button is provided for save to database In that boxes must be filled with integer values.

5.2.26.4 Functional Requirement

System shell save the grades to database in "Grade" table

5.2.26.5 Functional Requirement

System should provide exception message.

5.2.27 Assign Task To Training

Use Case Name	UC305_Assign Task to Training
Name	
Actor	Users who have "ROLE_ADMIN" role or moderator of training.
Preconditions	The url should be known by users
Trigger	This use case is initiated when user enters "Add Task" page from training profile
Basic Flow	 System provides form that includes "Name", "Weight (%)" and Task Type fields. The user fills those fields
	 The user press "Add" button to save to database
Exception Flow	If the "Weight (%)" field is not filled with integer, then system sends exception message
Post conditions	The task will be saved to database and user is redirected to related training.

5.2.27.1 Functional Requirement

System provides form that includes "Name", "Weight (%)" and Task Type fields

5.2.27.2 Functional Requirement

System provides "Add" button. "Add" button is provided for save to database

5.2.27.3 Functional Requirement

System shell save the grades to database in "Task" table

5.2.27.4 Functional Requirement

System should validate "Weight (%)" field. That field must be filled with integer.

5.2.27.5 Functional Requirement

System should redirect user to related training profile page.

5.2.27.6 Functional Requirement

System should provide exception message.

5.2.28 Assign Taskunit To Task

Use Case Name	UC306_Assign Taskunit To Task
Actor	Users who have "ROLE_ADMIN" role or moderator of training.
Preconditions	The url should be known by users
Trigger	This use case is initiated when user enters "Add TaskUnit" page from task profile
Basic Flow	 System provides form that includes "Name" and "point" The user fills those fields. The user press "Add" button to save to database
Exception Flow	If the "point" field is not filled with integer, then system sends exception message
Post conditions	The taskunit will be saved to database and user is redirected to related task profile page.

5.2.28.1 Functional Requirement

System provides form that includes "Name" and "Point"

5.2.28.2 Functional Requirement

System provides "Add" button. "Add" button is provided for save to database

5.2.28.3 Functional Requirement

System shell save the taskunit to database in "TaskUnit" table

5.2.28.4 Functional Requirement

System should validate "Point" field. That field must be filled with integer.

5.2.28.5 Functional Requirement

System should redirect user to related task profile page.

5.2.28.6 Functional Requirement

System should provide exception message.

5.2.29 Assign Role To Usergroup

Use Case Name	UC307_Assign Role To Usergroup
Actor	Users who have "ROLE_ADMIN" role
Preconditions	The url should be known by users
Trigger	This use case is initiated when user enters "Add Role" page from usergorup profile
Basic Flow	 System provides form that includes all roles and provide select box for each role. System provides "Save" button The user selects roles The user press "Save" button to save to database
Exception Flow	
Post conditions	The roles will be saved to database in UsergroupRole table and user is redirected to related usergroup profile page

5.2.29.1 Functional Requirement

System gets all roles from database.

5.2.29.2 Functional Requirement

System provides form that includes all roles and provide select box for each role. System provides "Save" button. "Save" button is provided for save to database

5.2.29.3 Functional Requirement

System shell save the roles to database in "UsergroupRole" table.

5.2.29.4 Functional Requirement

System should redirect user to related usergroup profile page.

5.2.30 Assign Role To User

Use Case Name	UC308_Assign Role To User
Actor	Users who have "ROLE_ADMIN" role
Preconditions	The url should be known by users
Trigger	This use case is initiated when user enters "Add Role" page from user profile
Basic Flow	 System provides form that includes all roles and provide select box for each role. System provides "Save" button The user selects roles The user press "Save" button to save to database
Exception Flow	
Post conditions	The roles will be saved to database in UserRole table and user is redirected to related user profile page

5.2.30.1 Functional Requirement

System gets all roles from database.

5.2.30.2 Functional Requirement

System provides form that includes all roles and provide select box for each role. System provides "Save" button. "Save" button is provided for save to database

5.2.30.3 Functional Requirement

System shell save the roles to database in "UserRole" table.

5.2.30.4 Functional Requirement

System should redirect user to related user profile page.
5.2.31 Show User Statistics

Use Case Name	UC401_Show User Statistics
Actor	Users who have "ROLE_ADMIN" role
Preconditions	The url should be known by users
Trigger	This use case is initiated when user enters show user statistics page from user profile page
Basic Flow	 13. System gets user subscribed trainings 14. System gets grades which are related to user subscribed trainings 15. System make analysis to categorize user statistics under given Measurement Criterias 16. System make analysis to categorize user statistics semester by semester 17. System shows statistics charts such "Radar", "Line", "Bar" etc.
Exception Flow	
Post conditions	The user statistics are present according to year by year and given measurement criteria

5.2.31.1 Functional Requirement

System should check user have "ROLE_ADMIN" role

5.2.31.2 Functional Requirement

System gets user subscribed trainings

5.2.31.3 Functional Requirement

System gets user grades to make analyse

5.2.31.4 Functional Requirement

System makes analyses get results

5.2.31.5 Functional Requirement

5.2.32 Show Term Statistics

Use Case Name	UC402_Show Term Statistics
Actor	Users who have "ROLE_ADMIN" role
Preconditions	The url should be known by users
Trigger	This use case is initiated when user enters show term statistics page from term profile page
Basic Flow	 System gets trainings which are registered to the term System gets grades which are related to the term System make analysis to categorize user statistics under given Measurement Criteria System make analysis to categorize term statistics under given measurement criteria System make analysis to categorize term statistics under given measurement criteria System shows statistics charts such "Radar", "Line", "Bar" etc.
Exception Flow	
Post conditions	The term statistics are present according to given measurement criteria

5.2.32.1 Functional Requirement

System should check user have "ROLE_ADMIN" role

5.2.32.2 Functional Requirement

System gets trainings which are registered to the term

5.2.32.3 Functional Requirement

System gets trainings, which are registered that term, grades to make analyse

5.2.32.4 Functional Requirement

System makes analyses get results

5.2.32.5 Functional Requirement

5.2.33 Show Training Statistics

Use Case Name	UC403_Show Training Statistics
Actor	Users who have "ROLE_ADMIN" role
Preconditions	The url should be known by users
Trigger	This use case is initiated when user enters show training statistics page from training profile page
Basic Flow	 System gets grades which are related to the training System make analysis to categorize user statistics under given Measurement Criteria and section System make analysis to categorize term statistics under given measurement criteria, section System shows statistics charts such "Radar", "Line", "Bar" etc.
Exception Flow	
Post conditions	The training statistics are present according to given measurement criteria and section

5.2.33.1 Functional Requirement

System should check user have "ROLE_ADMIN" role

5.2.35.2 Functional Requirement

System gets grades which are related to the training to make analyse

5.2.33.3 Functional Requirement

System makes analyses get results and categorize these result under section by section and measurement criteria

5.2.33.4 Functional Requirement

5.2.34 Show MeasurementSet Statistics

Use Case Name	UC404_Show MeasurementSet statistics
Actor	Users who have "ROLE_ADMIN" role
Preconditions	The url should be known by users
Trigger	This use case is initiated when user enters show MeasurementSet statistics page from MeasurementSet profile page
Basic Flow	 System gets related measurement criterias with that measurementset System gets grades which are related to those measurement criteria System make analysis to categorize user statistics year by year System shows statistics charts such "Radar", "Line", "Bar" etc.
Exception Flow	
Post conditions	The MeasurementSet statistics are present according year by year

5.2.34.1 Functional Requirement

System should check user have "ROLE_ADMIN" role

5.2.34.2 Functional Requirement

System gets measurement criteria which are related to the measurementset

5.2.34.3 Functional Requirement

System gets grades which are related to those measurement criteria

5.2.34.4 Functional Requirement

System makes analyses get results and categorize them to year by year

5.2.34.5 Functional Requirement

5.2.35 Show TaskType Statistics

Use Case Name	UC405_Show TaskType Statistics
Actor	Users who have "ROLE_ADMIN" role
Preconditions	The url should be known by users
Trigger	This use case is initiated when user enters show tasktype statistics page from tasktype profile page
Basic Flow	 System gets related tasks with that tasktype System gets grades which are related to those task System make analysis to categorize user statistics year by year System shows statistics charts such "Radar", "Line", "Bar" etc.
Exception Flow	
Post conditions	The tasktype statistics are present according year by year

5.2.35.1 Functional Requirement

System should check user have "ROLE_ADMIN" role

5.2.35.2 Functional Requirement

System gets tasks which are related to the tasktype

5.2.35.3 Functional Requirement

System gets grades which are related to those task

5.2.35.4 Functional Requirement

System makes analyses get results and categorize them to year by year

5.2.35.5 Functional Requirement

5.2.36 Show Trainer Statistics

Use Case Name	UC406_Show Trainer Statistics
Actor	Users who have "ROLE_ADMIN" role
Preconditions	The url should be known by users
Trigger	This use case is initiated when user enters show trainer statistics page from user profile page
Basic Flow	 System gets trainings which are related with that trainer. System gets subscriber list of that trainings System gets grades of these subscribers System make analyse these grades and categorize these grades training by training, year by year, measurement set by measurement set System present these result by helping charts such "Bar", "Line", "Radar"
Exception Flow	
Post conditions	The trainer statistics are present according training by training, year by year, measurement set by measurement set

5.2.36.1 Functional Requirement

System should check user have "ROLE_ADMIN" role

5.2.36.2 Functional Requirement

System gets trainings which are related with that trainer.

5.2.36.3 Functional Requirement

System gets subscriber list of that trainings

5.2.36.4 Functional Requirement

System gets grades of these subscribers

5.2.36.5 Functional Requirement

System make analyse these grades and categorize these grades training by training, year by year, measurement set by measurement set

5.2.36.5 Functional Requirement

System present these result by helping charts such "Bar", "Line", "Radar"

5.2.37 Update User

Use Case Name	UC501_UpdateUser
Actor	Users who have has "ROLE_CAN_UPDATE_USER" role
Preconditions	The url should be known by users
Trigger	This use case is initiated when user presses "Save" button
Basic Flow	 System provides "Username", "Password", "Name", "Surname", "E-mail", "Optional- Email" and "Picture" fields to user. The user fills these fields. The user press the "Save" button. System sends those information to Database and updates the user. System redirects user to the user profile page.
Exception Flow	If the username already registered then system sends exception If "E-mail", "name", "surname", "username" or "password" one of these fields is empty then system sends exception
Post conditions	Desired user's information are updated and the user redirected to user profile

5.2.37.1 Functional Requirement

System should check user roles. User should have "ROLE_CAN_UPDATE_USER" role.

5.2.37.2 Functional Requirement

User should fill "Username", "Password", "Name", "Surname", "E-mail", "Optional- Email" and "Picture" fields.

5.2.37.3 Functional Requirement

System should validate filled fields. Username should be unique in Database. Password should contain at least 8 characters. Name and surname field must not be empty. Email regex format : _*@_* Email field must not be empty. Optional E-mail format : _*@_* It can be null.

5.2.37.4 Functional Requirement

System should update that user into database.

5.2.37.5 Functional Requirement

System should redirect user to user page which was added if user presses "Save" button.

5.2.37.6 Functional Requirement

5.2.38 Update Department

Use Case Name	UC502_UpdateDepartment
Actor	Users who have has "ROLE_CAN_UPDATE_DEPARTMENT" role
Preconditions	The url should be known by users
Trigger	This use case is initiated when user presses "Save" button
Basic Flow	 System provides "Department Name" and "Parent Department" fields to user. The user fills these fields. The user presses the "Save" button. System sends those information to Database and updates the department. System redirects user to the department profile page.
Exception Flow	If department name is empty then system sends exception
Post conditions	Desired department is updated and user is redirected to department profile

5.2.38.1 Functional Requirement

System should check user roles. User should have "ROLE_CAN_UPDATE_DEPARTMENT" role.

5.2.38.2 Functional Requirement

System should get department list from database for "Parent Department" field.

5.2.38.3 Functional Requirement

System should validate department name. It must not be empty It will be string.

5.2.38.4 Functional Requirement

System should update that department into database.

5.2.38.5 Functional Requirement

System should redirect user to department profile which was added if user presses "Save" button.

5.2.38.6 Functional Requirement

5.2.39 Update Usergroup

Use Case Name	UC503_UpdateUsergroup
Actor	Users who have has "ROLE_CAN_UPDATE_USERGROUP"
Preconditions	The url should be known by users
Trigger	This use case is initiated when user presses "Save" button
Basic Flow	 6. System provides "Group Name" field and role list to user. 7. The user fills "Group Name" field and selects roles from role list 8. The user presses the "Save" button. 9. System sends these information to Database and updates the usergroup. 10. System redirects user to the usergroup profile page.
Exception Flow	If usergroup name is empty then system sends exception message
Post conditions	Desired usergorup is updated and user is redirected to usergroup profile

5.2.39.1 Functional Requirement

System should check user roles. User should have "ROLE_CAN_ADD_USERGROUP" role.

5.2.39.2 Functional Requirement

System should get role list from database.

5.2.39.3 Functional Requirement

System should validate usergroup name. It must not be empty. It will be string.

5.2.39.4 Functional Requirement

System should update that usergroup into database.

5.2.39.5 Functional Requirement

System should redirect user to usergroup profile which was updated if user presses "Save" button.

5.2.39.6 Functional Requirement

5.2.40 Update Training

Use Case Name	UC504_UpdateTraining
Actor	Users who have has "ROLE_CAN_UPDATE_TRAINING"
Preconditions	The url should be known by users
Trigger	This use case is initiated when user presses "Save" button
Basic Flow	 System provides "Training Definition", "Trainer", "Section" and "Term" fields to user. The user fills these fields. The user presses the "Save" button. System sends these information to Database and updates. System redirects user to training profile page.
Exception Flow	If section field is not integer then system sends exception
Post conditions	Desired training is updated and user is redirected to training profile

5.2.40.1 Functional Requirement

System should check user roles. User should have "ROLE_CAN_UPDATE_TRAINING" role.

5.2.40.2 Functional Requirement

System should provide "Training Definition", "Trainer", "Section" "Term" fields. For "Training Definition" field system should take training definitions from database For "Trainer" field system should take users from database For "Term" field system should take terms from database

5.2.40.3 Functional Requirement

System should validate "Section" field. It must be integer.

5.2.40.4 Functional Requirement

System should save that training in database.

5.2.40.5 Functional Requirement

System should redirect user to training profile which was updated if user presses "Save" button.

5.2.40.6 Functional Requirement

5.2.41 Update Training Definition

Use Case Name	UC505_UpdateTrainingDefination
Actor	Users who have has "ROLE_CAN_UPDATE_TRAINING_DEFINITION"
Preconditions	The url should be known by users
Trigger	This use case is initiated when user presses "Save" button
Basic Flow	 System provides "Training Code", "Name" and "Description" fields to user. The user fills these fields. The user presses the "Save" button. System sends these information to Database and updates. System redirects user to the training definition profile page.
Exception Flow	If training code is not integer or name field is empty then system sends exception
Post conditions	Desired training definition is updated and user is redirected to training definition profile

5.2.41.1 Functional Requirement

System should check user roles. User should have "ROLE_CAN_UPDATE_TRAINING_DEFINITION" role.

5.2.41.2 Functional Requirement

System should provide "Training Code", "Name" and "Description" fields.

5.2.41.3 Functional Requirement

System should validate Training Code field should be integer. Name field should be string. Description field should has text editor.

5.2.41.4 Functional Requirement

System should update that training definition into database.

5.2.41.5 Functional Requirement

System should redirect user to training definition profile which was updated if user presses "Update" button.

5.2.41.6 Functional Requirement

5.2.42 Update Term

Use Case Name	UC506_UpdateTerm
Actor	Users who have has "ROLE_CAN_UPDATE_TERM"
Preconditions	The url should be known by users
Trigger	This use case is initiated when user presses "Save" button
Basic Flow	 System provides "Name" field and "Active" selectable field to user. The user fills these fields. The user presses the "Save" button. System sends those information to Database and updates. System redirects user to term list page.
Exception Flow	If name field is empty then system sends exception
Post conditions	Desired term is updated and user is redirected to term list page

5.2.42.1 Functional Requirement

System should check user roles. User should have "ROLE_CAN_UPDATE_TERM" role.

5.2.42.2 Functional Requirement

System should provide "Name" and "active" fields.

5.2.42.3 Functional Requirement

Name field should be string. Active field should be selectable field.

5.2.42.4 Functional Requirement

System should save that term in database.

If active field is filled, then system updates the term, which was already active, to inactive. (In database, there must be just one active term)

5.2.42.5 Functional Requirement

System should redirect user to term list page when user presses "Save" button.

5.2.42.6 Functional Requirement

5.2.43 Update Task Type

Use Case Name	UC507_UpdateTaskType
Actor	Users who have has "ROLE_CAN_UPDATE_TASK_TYPE"
Preconditions	The url should be known by users
Trigger	This use case is initiated when user presses "Save" button
Basic Flow	 System provides "Name" field to user. The user fills that field. The user presses the "Save" button. System sends these information to Database and updates. System redirects user to task type list page.
Exception Flow	If name field is empty then system sends exception
Post conditions	Desired task type is updated and user is redirected to task type list page

5.2.43.1 Functional Requirement

System should check user roles. User should have "ROLE_CAN_UPDATE_TASK_TYPE" role.

5.2.45.2 Functional Requirement

User should fill "Name" field.

5.2.43.3 Functional Requirement

System should validate filled field. Name should not be empty and it will be string

5.2.43.4 Functional Requirement

System should update that task type into database.

5.2.43.5 Functional Requirement

System should redirect user to task type list page, if user presses "save" button.

5.2.43.6 Functional Requirement

5.2.44 Update Task

Use Case Name	UC508_UpdateTask
Actor	Users who have has "ROLE_CAN_UPDATE_TASK"
Preconditions	The url should be known by users
Trigger	This use case is initiated when user presses "Save" button
Basic Flow	 System provides "Name", "Weight" and "TaskType" fields to user. The user fills that field. The user presses the "Save" button. System sends these information to Database and updates. System redirects user to task list page.
Exception Flow	If "Name" field is empty or "Weight" field is not integer then system sends exception
Post conditions	Desired task is updated and user is redirected task list page.

5.2.44.1 Functional Requirement

System should check user roles. User should have "ROLE_CAN_UPDATE_TASK" role.

5.2.44.2 Functional Requirement

System provides "Name", "Weight" and "TaskType" fields to user

5.2.44.3 Functional Requirement

System should validate filled field. Name should not be empty and it will be string Weight field must be filled with integer value

5.2.44.4 Functional Requirement

System should updates that task into database.

5.2.44.5 Functional Requirement

System should redirect user to task list page, if user presses "Save" button.

5.2.44.6 Functional Requirement

5.2.45 Update Measurement Criteria

Use Case Name	UC509_UpdateMeasurementCriteria	
Actor	Users who have has "ROLE_CAN_UPDATE_MEASUREMENT_CRITERIA"	
Preconditions	The url should be known by users	
Trigger	This use case is initiated when user presses "Save" button	
Basic Flow	 System provides "Description", "Measurement Set" and "Parent Measurement Criteria" fields to user. The user fills that field. The user presses the "Save" button. System sends these information to Database and updates. System redirects user to measurement criteria profile which was updated. 	
Exception Flow		
Post conditions	Desired measurement criteria is registered and user is redirected to add measurement criteria page or measurement criteria profile which was added	

5.2.45.1 Functional Requirement

System should check user roles. User should have "ROLE_CAN_UPDATE_MEASUREMENT_CRITERIA" role.

5.2.45.2 Functional Requirement

System should provide "Description", "Measurement Set" and "Parent Measurement Criteria" fields

"Description" field must has text editor.

For "Measurement Set" field, system should get measurement sets from database For "Parent Measurement Criteria" field, system should get measurement criteria from

database

5.2.45.3 Functional Requirement

System should validate filled field.

5.2.45.4 Functional Requirement

System should update that measurement criteria into database.

5.2.45.5 Functional Requirement

System should redirect user to measurement criteria profile page which was updated, if user presses "Save" button.

5.2.45.6 Functional Requirement

5.2.46 Add Measurement Set

Use Case Name	UC510_UpdateMeasurementSet	
Actor	Users who have has "ROLE_CAN_UPDATE_MEASUREMENT_SET"	
Preconditions	The url should be known by users	
Trigger	This use case is initiated when user presses "Save" button	
Basic Flow	 System provides "Measurement Set Name" and "Parent Measurement Set" fields to user. The user fills that field. The user presses the "Save" button. System sends these information to Database and updates. System redirects user to measurement set profile which was updated. 	
Exception Flow	If measurement Set Name field is empty then system sends exception	
Post conditions	Desired measurement set is updated and user is redirected to measurement set profile which was updated	

5.2.46.1 Functional Requirement

System should check user roles. User should have "ROLE CAN UPDATE MEASUREMENT SET" role.

5.2.46.2 Functional Requirement

System should provide "Name" and "Parent Measurement Set" fields For "Parent Measurement Set" field, system should get measurement sets from database

5.2.46.3 Functional Requirement

System should validate filled field. Name should not be empty and it will be string

5.2.46.4 Functional Requirement

System should update that measurement set into database.

5.2.46.5 Functional Requirement

System should redirect user to measurement set profile page which was updated, if user presses "Save" button.

5.2.46.6 Functional Requirement

System should redirect user to add measurement set page, if user presses "Continue Adding" button.

5.2.46.7 Functional Requirement

5.2.47 Remove User

Use Case Name	UC601_RemoveUser
Actor	Users who have has "ROLE_CAN_REMOVE_USER" role
Preconditions	The url should be known by users
Trigger	This use case is initiated when user presses "Remove" button
Basic Flow	 System provides "Remove" button. System redirects user to the user list page
Exception Flow	
Post conditions	The desired user is removed and user is redirected to user list page

5.2.47.1 Functional Requirement

System should check user roles. User should have "ROLE_CAN_REMOVE_USER" role.

5.2.47.2 Functional Requirement

System should remove user from database.

5.2.47.3 Functional Requirement

System should redirect user to user list page

5.2.48 Remove Department

Use Case Name	UC602_RemoveDepartment
Actor	Users who have has "ROLE_CAN_REMOVE_DEPARTMENT" role
Preconditions	The url should be known by users
Trigger	This use case is initiated when user presses "Remove" button
Basic Flow	 System provides "Remove" button. System redirects user to the department list page
Exception Flow	
Post conditions	The desired department is removed and user is redirected to department list page

5.2.48.1 Functional Requirement

System should check user roles. User should have "ROLE_CAN_REMOVE_DEPARTMENT" role.

5.2.48.2 Functional Requirement

System should remove department from database.

5.2.48.3 Functional Requirement

System should redirect user to department list page

5.2.49 Remove Role

Use Case Name	UC603_RemoveRole
Actor	Users who have has "ROLE_CAN_REMOVE_ROLE" role
Preconditions	The url should be known by users
Trigger	This use case is initiated when user presses "Remove" button
Basic Flow	 System provides "Remove" button. System redirects user to the role list page
Exception Flow	
Post conditions	The desired role is removed and user is redirected to role list page

5.2.49.1 Functional Requirement

System should check user roles. User should have "ROLE_CAN_REMOVE_ROLE" role.

5.2.49.2 Functional Requirement

System should remove role from database.

5.2.49.3 Functional Requirement

System should redirect user to role list page

5.2.50 Remove Role

Use Case Name	UC604_RemoveUsergroup
Actor	Users who have has "ROLE_CAN_REMOVE_USERGROUP" role
Preconditions	The url should be known by users
Trigger	This use case is initiated when user presses "Remove" button
Basic Flow	 System provides "Remove" button. System redirects user to the usergroup list page
Exception Flow	
Post conditions	The desired usergroup is removed and user is redirected to usergroup list page

5.2.50.1 Functional Requirement

System should check user roles. User should have "ROLE CAN REMOVE USERGROUP" role.

5.2.50.2 Functional Requirement

System should remove usergroup from database.

5.2.50.3 Functional Requirement

System should redirect user to usergroup list page

5.2.51 Remove Training

Use Case Name	UC605_RemoveTraining
Actor	Users who have has "ROLE_CAN_REMOVE_TRAINING" role
Preconditions	The url should be known by users
Trigger	This use case is initiated when user presses "Remove" button
Basic Flow	 System provides "Remove" button. System redirects user to the training list page
Exception Flow	
Post conditions	The desired training is removed and user is redirected to training list page

5.2.51.1 Functional Requirement

System should check user roles. User should have "ROLE_CAN_REMOVE_TRAINING" role.

5.2.51.2 Functional Requirement

System should remove training from database.

5.2.51.3 Functional Requirement

System should redirect user to training list page

5.2.52 Remove Training Definition

Use Case Name	UC606_RemoveTrainingDefinition
Actor	Users who have has "ROLE_CAN_REMOVE_TRAINING_DEFINITION" role
Preconditions	The url should be known by users
Trigger	This use case is initiated when user presses "Remove" button
Basic Flow	 System provides "Remove" button. System redirects user to the training definition list page
Exception Flow	
Post conditions	The desired training definition is removed and user is redirected to training definition list page

5.2.52.1 Functional Requirement

System should check user roles. User should have "ROLE_CAN_REMOVE_TRAINING_DEFINITION" role.

5.2.52.2 Functional Requirement

System should remove training definition from database.

5.2.52.3 Functional Requirement

System should redirect user to training definition list page

5.2.53 Remove Subscriber

Use Case Name	UC607_RemoveSubscriber
Actor	Users who have has "ROLE_CAN_REMOVE_SUBSCRIBER" role
Preconditions	The url should be known by users
Trigger	This use case is initiated when user presses "Remove" button
Basic Flow	 System provides "Remove" button. System redirects user to the subscriber list page
Exception Flow	
Post conditions	The desired subscriber is removed and user is redirected to subscriber list page

5.2.53.1 Functional Requirement

System should check user roles. User should have "ROLE_CAN_REMOVE_SUBSCRIBER" role.

5.2.55.2 Functional Requirement

System should remove subscriber from database.

5.2.53.3 Functional Requirement

System should redirect user to subscriber list page

5.2.54 Remove Term

Use Case Name	UC608_RemoveTerm
Actor	Users who have has "ROLE_CAN_REMOVE_TERM" role
Preconditions	The url should be known by users
Trigger	This use case is initiated when user presses "Remove" button
Basic Flow	 System provides "Remove" button. System redirects user to the term list page
Exception Flow	
Post conditions	The desired term is removed and user is redirected to term list page

5.2.54.1 Functional Requirement

System should check user roles. User should have "ROLE_CAN_REMOVE_TERM" role.

5.2.54.2 Functional Requirement

System should remove term from database.

5.2.54.3 Functional Requirement

System should redirect user to term list page

5.2.55 Remove TaskSet

Use Case Name	UC609_RemoveTaskset
Actor	Users who have has "ROLE_CAN_REMOVE_TASKSET" role
Preconditions	The url should be known by users
Trigger	This use case is initiated when user presses "Remove" button
Basic Flow	 System provides "Remove" button. System redirects user to the taskset list page
Exception Flow	
Post conditions	The desired taskset is removed and user is redirected to taskset list page

5.2.55.1 Functional Requirement

System should check user roles. User should have "ROLE_CAN_REMOVE_TASKSET" role.

5.2.55.2 Functional Requirement

System should remove taskset from database.

5.2.55.3 Functional Requirement

System should redirect user to taskset list page

5.2.56 Remove Grade

Use Case Name	UC610_RemoveGrade
Actor	Users who have has "ROLE_CAN_REMOVE_GRADE" role
Preconditions	The url should be known by users
Trigger	This use case is initiated when user presses "Remove" button
Basic Flow	 System provides "Remove" button. System redirects user to the grade list page
Exception Flow	
Post conditions	The desired grade is removed and user is redirected to grade list page

5.2.56.1 Functional Requirement

System should check user roles. User should have "ROLE_CAN_REMOVE_GRADE" role.

5.2.56.2 Functional Requirement

System should remove grade from database.

5.2.56.3 Functional Requirement

System should redirect user to grade list page

5.2.57 Remove TaskType

Use Case Name	UC611_RemoveTaskType
Actor	Users who have has "ROLE_CAN_REMOVE_TASKTYPE" role
Preconditions	The url should be known by users
Trigger	This use case is initiated when user presses "Remove" button
Basic Flow	 System provides "Remove" button. System redirects user to the tasktype list page
Exception Flow	
Post conditions	The desired tasktype is removed and user is redirected to tasktype list page

5.2.57.1 Functional Requirement

System should check user roles. User should have "ROLE_CAN_REMOVE_TASKTYPE" role.

5.2.57.2 Functional Requirement

System should remove tasktype from database.

5.2.57.3 Functional Requirement

System should redirect user to tasktype list page

5.2.58 Remove Task

	1
Use Case Name	UC612_RemoveTask
Actor	Users who have has "ROLE_CAN_REMOVE_TASK" role
Preconditions	The url should be known by users
Trigger	This use case is initiated when user presses "Remove" button
Basic Flow	 System provides "Remove" button. System redirects user to the task list page
Exception Flow	
Post conditions	The desired task is removed and user is redirected to task list page

5.2.58.1 Functional Requirement

System should check user roles. User should have "ROLE_CAN_REMOVE_TASK" role.

5.2.58.2 Functional Requirement

System should remove task from database.

5.2.58.3 Functional Requirement

System should redirect user to task list page

5.2.59 Remove TaskUnit

Use Case Name	UC613_RemoveTaskUnit
Actor	Users who have has "ROLE_CAN_REMOVE_TASKUNIT" role
Preconditions	The url should be known by users
Trigger	This use case is initiated when user presses "Remove" button
Basic Flow	 System provides "Remove" button. System redirects user to the taskunit list page
Exception Flow	
Post conditions	The desired taskunit is removed and user is redirected to taskunit list page

5.2.59.1 Functional Requirement

System should check user roles. User should have "ROLE_CAN_REMOVE_TASKUNIT" role.

5.2.59.2 Functional Requirement

System should remove taskunit from database.

5.2.59.3 Functional Requirement

System should redirect user to taskunit list page

5.2.60 Remove Measurement Criteria

Use Case Name	UC614_RemoveMeasurementCriteria
Actor	Users who have has "ROLE_CAN_REMOVE_MEASUREMENT_CRITERIA" role
Preconditions	The url should be known by users
Trigger	This use case is initiated when user presses "Remove" button
Basic Flow	 System provides "Remove" button. System redirects user to the measurement criteria list page
Exception Flow	
Post conditions	The desired measurement criteria is removed and user is redirected to measurement criteria list page

5.2.60.1 Functional Requirement

System should check user roles. User should have "ROLE_CAN_REMOVE_MEASUREMENT_CRITERIA" role.

5.2.60.2 Functional Requirement

System should remove measurement criteria from database.

5.2.60.3 Functional Requirement

System should redirect user to measurement criteria list page

5.2.61 Remove Measurement Set

Use Case Name	UC615_RemoveMeasurementSet
Actor	Users who have has "ROLE_CAN_REMOVE_MEASUREMENT_SET" role
Preconditions	The url should be known by users
Trigger	This use case is initiated when user presses "Remove" button
Basic Flow	 System provides "Remove" button. System redirects user to the measurement set list page
Exception Flow	
Post conditions	The desired measurement criteria is removed and user is redirected to measurement set list page

5.2.61 .1 Functional Requirement

System should check user roles. User should have "ROLE CAN REMOVE MEASUREMENT SET" role.

5.2.61 .2 Functional Requirement

System should remove measurement set from database.

5.2.61 .3 Functional Requirement

System should redirect user to measurement set list page

5.2.62 StatisticalResultViewing

Use Case Name	UC701_StatisticalResultViewing
Actor	User
Preconditions	The url should be known by users
Trigger	This use case is initiated when user presses "view success" button
Basic Flow	 System provides "statistical content" button. System redirects user to the statistical result viewing page
Exception Flow	
Post conditions	The desired success percentage of course is shown by user.

5.2.62 .1 Functional Requirement

System should check userId with desired userid which will shown in result of training statistics.

5.2.62 .2 Functional Requirement

System should get user informations and course grade informations of given userId. And normalize them to show 0-100 range success percentage

5.2.63 GradeAdvisor

Use Case Name	UC702_GradeAdvisor
Actor	User who has trainer role
Preconditions	The url should be known by users
Trigger	This use case is initiated when user presses "advise grade" button
Basic Flow	 System provides advise grade button User click button and show advised grades for given trainees
Exception Flow	
Post conditions	Grades are assigned to users according to their overall success of course/training

5.2.63 .1 Functional Requirement

System should check user to have role of trainer.

5.2.63 .2 Functional Requirement

System should take training id and its subscribers id.

5.2.63 .3 Functional Requirement

System should get subscribers overall grades and assign them to advised grade According to trained machine learning algorithms.

5.2.64 ExamPrepare

Use Case Name	UC703_Exam Prepare
Actor	User who has trainer role
Preconditions	The url should be known by users Taskunit of desired task should be assigned
Trigger	This use case is initiated when user presses "prepare Exam" button
Basic Flow	 System provides "prepare Exam" button User click button Taskunits of desired task are designed as a exam papers 4.
Exception Flow	
Post conditions	Grades are assigned to users according to their overall success of course/training

5.2.64 .1 Functional Requirement

System should check user to have role of trainer.

5.2.64 .2 Functional Requirement

System should take training id and its subscribers id.

5.2.64 .3 Functional Requirement

System should get subscribers overall grades and assign them to advised grade according to trained machine learning algorithms.

5.2.64 .4 Functional Requirement

System show advised grade letters to user.

5.2.65 FileUpload

Use Case Name	UC704_FileUpload
Actor	User who related with desired training
Preconditions	The url should be known by users
Trigger	This use case is initiated when user presses "upload" button
Basic Flow	 System provides "upload" button System provides selection box for uploaded file type User drag&drop files System save file his server and database
Exception Flow	
Post conditions	Desired file is saved Guideal servers and related informations saved in database

5.2.65 .1 Functional Requirement

System should check user. User should be related with desired training

5.2.65 .2 Functional Requirement

System should provide task type selection boxes and "upload" button

5.2.65 .3 Functional Requirement

System should save file to his server and related information in database.

5.2.66 FileUpload

Use Case Name	UC705_FileDownload
Actor	User who related with desired training
Preconditions	The url should be known by users
Trigger	This use case is initiated when user presses "download" button
Basic Flow	 System should list files and provides "download" button Files downloaded as a zip
Exception Flow	
Post conditions	Desired file is downloaded by user as a zip format

5.2.66 .1 Functional Requirement

System should check user. User should be related with desired training

5.2.66 .2 Functional Requirement

System shell list files and provides "download" button

5.2.66 .3 Functional Requirement

System should get selected file from his server and prepare zip format of it.

5.2 LOGICAL VIEWPOINT

Logical viewpoint of Guideal shown in appendices L, M, N, O These class diagrams and package diagram which shown in appendix T describes to Guideal Logical Viewpoint.

5.3 INFORMATION VIEWPOINT

Information viewpoint of Guideal is described as a ER diagram which is in appendix S.

5.4 INTERACTION VIEWPOINT

Sequence diagrams of interaction view-points are listed in appendices I to R

5.5 STATE DYNAMICS VIEWPOINT

State dynamic view-point is represented as a sequence diagram. Related sequences are listed in I to R

5.6 INTERFACE VIEWPOINT

5.6.2 User Interfaces

In this part, the user-interface of the system will be introduced. Mainly, create, remove, update and display functions of system will be shown.

When user enter web page, Login Page(Figure-5.6.5.6.2) is shown. If the user is registered and login, then home page will be open.

🔒 Guideal		Search	Search	admin +
) Training List	f login			
🗉 Latest News				
iii Seminars		SIGN IN		
About Us		Jsername		
		Password	7	
		Login		
		Use your Ceng account to login.		
	Copyright	t 2014 www.guideal.com		

Figure-5.6.2: Login Page

When user logs out succesfully the system returns to the login page with a success message as in Figure-5.6.3.

🔒 Guideal		Search	Search	admin +
≣ Training List	iogin			
I Latest News				
Seminars		SIGN IN		
O About Us		O You've been logged out successfully.		
		biannana	_	
		Password	-	
		Login		
		Use your Cenn account to Ionin		
		use your ceny account to royar.		
	Copyright 20	114 www.guideal.com		

Figure-5.6.3: Login Page after Logout

All the functionalities are inserted into menu at the left side of the pages. In all list pages shortcuts are added into the rows. Also checkbox can be used to do multi operations. In addition, all lists include filter functionality.

5.6.2.1 User Pages

The first pages in the system are about user operations. In the registeration page (Figure-5.6.4) is used to register to the system. Update page (Figure-5.6.5) can be used to update the informations of the users. The list of the users are shown in the user list page (Figure-5.6.6). The profile page (Figure-5.6.7) is contain all the information about the users.

🔒 Guideal	Search. Maret Advis-	n Guideal Such. Seek	
A row A row	Ne per Ne fadda Ne Ne Ne Ne Ne Ne Ne Ne Ne Ne	2 Image: margin margi	
		Copyright 2014 www.guilland.com	

Figure-5.6.4: Registration Page

Figure-5.6.5: Update User Page

🔒 Guideal	fears.	Seath advect -	n Guideal	Seet. Seet. doi: -
00	A		00	M user esténsie
Low .			1 the -	
				Secret a
# UserGroup -	List of Users		E therGroup -	Topice find to for Topicater are how [Teleford, Assessment]
A 100		hearth	8 Mar 1	
	Opername + E-mail	Email 2 1		Enne Köleb
E Department -	admin admin@admin.com	5×28 1 5	# Department -	Emre Kuldn
	assistent approngicing metu edu tr	OXEC D		(greiddiddo
E Tranced Detectory -	seastart2 Terrol@cong meta edu 9	0×0+ p	II Training Getermon	2 erne kdatig erg nels ets i den kannt bed frankrys
	enabled3 winc@cong.metu.edu.tr	Oxme u	A loss of the second	
· Training ·	assistant4 endatigic engimetu edu. It	0×20 0	- ming	
C Tank Tools	#1981141 #1881143@cong.metu.edu.tr	0×0+ 0	O Task Type	August +
a can city	a1081200 a1881200@coreg meta adu 9	0.484 8		
E term	e (00120) enve kulangiceng metu edu tr	DXD0 E	E tem +	EST EST
	#1681735 yusuf.cetekaya@ceng.metu.edu.tr	GXB# g		
E Manurement has	e1881747 portiern coargicerg meta edu tr	QX30 = 2	🖾 Weathersteit het 🚽	
	entractor1 skysz@cong.meta.eda.tr	0×8+ 8		
13 Measurement Drivers -	instructor2 trangcong meta.edu/r	0.424 8	E Measurement Criteria -	Starth: Seath
	industrial and a second contracts and a			Group Name Departments *
di Battitica (Charte)	physicing 11th 18 of 18 without		a minori china	Associated Costing Expressing
				Statest MC
				Bhoang tits 2 of 2 wither
1	We have seen as a second second			

Figure-5.6.6: User List Page

Figure-5.6.7: User Profile Page

There are three pages to assign groups, departments and roles to users. They are reachable from user profiles and also directly from user list.

🔒 Guideal	Search. Board advise	🔒 Guideal	fearch Search adeals -
00	ser assign department	00	A user assgs-group
1 User -		1 the -	
II User Group -	Assign Departments to e1881258	II User Group -	Assign Usergroups To e1881258
O Rate	Unassigned Departments Film	© Rob -	Dessigned Over Drops Titr. Ansges a Ansgeed Over Oronge Titr.
E Department -	CDNG + Remove Central Engineering ED-2	E Department	homosof hydrox Admin v Remove Advisor(1 group1
Training Definition -		Training Delivition -	
A Taining -		A Training -	
Ф Тазік Тури -		Q такі турн -	
E ten -		E Tem -	
🖾 Measurement Set 👘 👻	A690	Hussammert Set	Acch
🗇 Measurement Orlanta -		🗄 Massarement Ottesta -	
de Batatics (Chata)		à Batistes (Charls)	

Figure-5.6.8: Assign Department to User Page

Figure-5.6.9: Assign User Group to User Page

🔒 Guideal	Search	Search admin +
20	n user assign-role	
1 User -		
User Group ~	Assign Roles to user "e1881358"	
👁 Role 👻		Reset Apply
Department -	Group	Check
	+Admin	
Training Definition *	ROLE_CAN_DEACTIVATE_USER	
A Training 👻	ROLE_CAN_REMOVE_USER	8
🛈 Task Type 👻	ROLE_CAN_UPDATE_USER	8
Term *	ROLE_CAN_REGISTER_USER	0
	+Profile Page	
🗐 Measurement Set 👻	ROLE_CAN_VIEW_USER_PROFILES	0
🔲 Measurement Criteria -	+User Group	
Ji Statistics (Charts)	ROLE_CAN_REMOVE_USERGROUP	D
	ROLE_CAN_UPDATE_USERGROUP	0
	ROLE_CAN_ADD_USERGROUP	0
	+User Role	
	ROLE_CAN_REMOVE_USERROLE	0
	ROLE_CAN_UPDATE_USERROLE	0
	ROLE_CAN_ADD_USERROLE	0
	+Department	
	ROLE_CAN_REMOVE_DEPARTMENT	
	DOLE ONLY DEDUTE DEDUDTIENT	

Figure-5.6.10: Assign Role to User Page

5.6.2.2 User Group Pages

The system includes basic CRUD operation pages of user groups. User groups are defined groups to assign users grouped roles.

Guideal	MILL.			Guideal	pages.	
0.0	n user group and				user group point	
± User -				1.0547 -		
R inches	Add User Course			II in the second	Add Lines Course	
a oseronog	Har own on ap			H operation -	All Ose only	
O Role ·	Group Name			O fair -	Group-Name Justicultar	
B Department -	Aut Continue Adding			B Department -	Reset Apply	
Training Definition -	Select desired Authorization			Training Definition -	Group	Check
A Training -	Group	Check		A Training -	+Admin	
0 this line is	+Admin			0.700.700	ROLE_CAN_DEACTNATE_USER	0
0 mm ()pr	ROLE CAN DEACTMATE USER			4 mm 104	ROLE_CAN_REMOVE_USER	0
1 hm -	ROLE CAN REMOVE USER			Tem -	ROLE_CAN_UPDATE_USER	
E Measurement Set	ROLE CAN UPDATE USER	0		El Messurement Set -	ROLE_CAN_REGISTER_USER	0
R Wassumment Offeria -	ROLE CAN REGISTER USER			R Measurement Otheria -	+Profile Page	
	+Profile Page				ROLE_CAN_MEW_USER_PROFILES	*
a instance (Charte)	ROLE CAN VEW USER PROFILES	0		de Romenos (Charts)	+User Group	
	+User Group				ROLE_CAN_REMOVE_USERGROUP	0
	ROLE_CAN_REMOVE_USERGROUP	0			ROLE_CAN_UPDATE_USERGROUP	0
	ROLE. CAN. UPDATE. USERGROUP	0			ROLE_CAN_ADD_USERGROUP	0
	ROLE_CAN_ADD_USERGROUP	0			+User Role	
	♦User Role				ROLE_CAN_REMOVE_USERROLE	0
	ROLE_CAN_REMOVE_USERROLE	0			ROLE_CAN_UPDATE_USERROLE	0
	ROLE CAN UPDATE USERROLE				ROLE_CAN_ADD_USERROLE	
	TO F OW HO WEEDO F				+Ospatnerit	

Figure-5.6.11: Add User Group Page

Figure-5.6.12: Update User Group Page

When adding new user group admin will decide which roles he will add to the system.

Guidean	240			n Guideai	
	• user group the				n unur group group1.5
1 Uner -				± user -	
III User Group -	List of User Groups			III User Group -	Al Graps 🔶 grapt
0 tos -		Search:		O Role -	
E Department -	Assistant1	G X D		E Department ·	Assigned Roles
Training Definition	group1 Instructor			E Training Definition -	Search:
A Turing -	Student System Admin			A taking -	Role A
O Task Type -	Showing 110 S of S and las	Deste • Acce		О Тазії Туре	ROLE_CAN_REMOVE_DEPARTMENT
E Terra -				diam	ROLE_CAN_UPDATE_DEPARTMENT
E Measurement Set -				E Messummert Set	Uniquery 1 to 3 cf3 entries
🗄 Measurement Criteria -				🗄 Wessumment Orbera -	
Ja Statistics (Charts)				de italistics (Charte)	List of Mambers +Ang Member
					Seath:
					Name A
					No-data availation in table Showing3 to 3 cr3 entres
					Copyright 2014 www.guideul.com

Figure-5.6.13: User Group List Page

Figure-5.6.14: User Group Profile Page

The user group profile page shows which roles the user group has and the list of members which are assigned to this group.

Image: Comparison of the comparison	🔒 Guideal		Search	Search	admin -
Luter - Luser Group - Role - Department - Training Definition - Training - Term - Measurement Citral=- - Matsuster (Citrals) - Matsuster (Citrals) -		🗢 🔒 user group assig	n-user		
III User Group © Role Department Training Definition Training Training Task Type Task Type Term Measurement Criteria	1. User				
Role Department Training Term Measurement Criterta- Massianti-Appent Ehan Assigned Users	III User Group	 Assign Users to group1 			
Department effettive admin admin definitation ranning Definition Training Definition Training Definition Training	👁 Role	- Unassigned Users Filler	Assign »	Assigned Users Filler	
Image: Training Definition - Image: Training -	Department	admin - admin admin e1881747 - Görkem Özer e1881705 - Yusuf Çetinkaya e1881205 - Emze Vilab	« Remove		
Training Tash Type Tash Type Term Term Measurement Criteria Massurement Criteria Massurement Criteria	Training Definition	e 1861143 - Murat Coşkun e 1881200 - Ahmet Melh Gedi	kli		
Task Type	A Training	 instructor3 - Anmet OguZ Akyr instructor2 - Tolga Can instructor3 - Ertan Onur instructor3 - Ertan Onur 	14		
Image: Term Image: Term </td <td>Task Type</td> <td>assistant1 - Alperen Eroğlu assistant2 - Fath Semiz</td> <td></td> <td></td> <td></td>	Task Type	assistant1 - Alperen Eroğlu assistant2 - Fath Semiz			
Measurement Criteria - Koory Koory Koory Koory Koory Koory Koory Koory Koory Koory Koory Koory Koory Koory Koory Koory Koory Koory Koory Koory Koory Koory Koory Koory Koory Koory Koory	🗇 Term	assistant4 - Erdal Sivri	*		
Measurement Criteria - At Statistics (Charts)	Measurement Set			App	er V
ali Statistics (Charts)	🗏 Measurement Criteria	L*			
	all Statistics (Charts)				
		Copyright	2014 www.guideal.com		

Figure-5.6.15: Assign User to User Group Page

5.6.2.3 Role List Page

This page shows the list of the roles which can be assigned to the users and user groups.

0	0	Tr user role list	
L User	*		
User Group	*	List of Roles	
@ Role			Search:
		Role	Description
Department	-	Admin	
		ROLE_CAN_DEACTIVATE_USER	This user can remove a user from the system.
Training Definition		ROLE_CAN_REMOVE_USER	This user can remove a user from the system.
		ROLE_CAN_UPDATE_USER	This user can update information a user in the system.
Training	× .	ROLE_CAN_REGISTER_USER	This user can register a user to the system.
		Department	
() Task Type	*	ROLE_CAN_REMOVE_DEPARTMENT	This user can remove a department from the system.
🗐 Term		ROLE_CAN_UPDATE_DEPARTMENT	This user can update information a department in the system.
		ROLE_CAN_ADD_DEPARTMENT	This user can add a department to the system.
Measurement Set	-	Profile Page	
-		ROLE_CAN_VIEW_USER_PROFILES	This user can view profile of a user.
Measurement Criteria	n ~	Super User	
Is continues (Charte)		ROLE_ADMIN	This is the administrator.
all statistics (charts)		Training	
		ROLE_CAN_UPDATE_TRAINING_DEFINITION	This user can update information a training definition in the system.
		ROLE_CAN_ADD_TRAINING_DEFINITION	This user can add a training definition to the system.
		ROLE_CAN_REMOVE_TRAINING	This user can remove a training from the system.
		ROLE_CAN_UPDATE_TRAINING	This user can update information a training in the system.
		0.017-040-000-0040000	20. A.A.A.A.A.A.A.A.A.A.A.A.A.A.A.A.A.A.A

Figure-5.6.16: Role List Page

5.6.2.4 Department Pages

The system includes basic CRUD operation pages of departments. Departments are the most extensive groups of the institutions as used in the real life.

n Guideal	Search. Search adols -	Guideal	Serth. Boach advise
20	Organized and	00	(A) department) splade
A the second sec		£ the -	
E user onus	Add Decentment	II User Group -	Update Department
0.00	Total Para Annual Marca	0 844 -	Department HE
Eccurteret .	Ref Ref	B Department -	Fund Certical Engineering
Training Definition	Department	Training Definition	Dates
A Transa	And Continue Adding	A Training -	_
0 tot tot		@ Task Type -	
The state	Lat of Departments	E ten -	List of Departments
I Westumment let		E Measurement bet	88-2
I Messawwest Critera -		🗎 Measurement Otteria -	
à Balistes (Charte)		& Restatus (Charta)	
			Gindeal
	_*		
	10-1		ODVS

Figure-5.6.17: Add Department Page

Figure-5.6.18: Update Department Page

In the department pages, graphs are used to show the structures. In the add department page (Figure-5.6.17) and update department page (Figure-5.6.18) User can add parent department by selecting from graph.

n Guideal	Stath. Seath adult -	🔒 Guideal	Seath. Seath	admit -
★ Cuberal Image: Second se	Income Control of		ere estimation	
	Capyingk 2014 some gabled core		Cupyright 2014 anns guideal core	

Figure-5.6.19: Department List Page

Figure-5.6.20: Department Profile Page

5.6.2.4 Training Definition Pages

The system includes basic CRUD operation pages of training definitions. Training definitions include basic information about trainings. Wysiwyg editor is used to create more explanatory definitions.

1 1 A and the set of the set o	H Guideai		n Guidean	
A monormal A monormal A monormal B monormal </td <td>0.</td> <td>A same antetos ad</td> <td>0+</td> <td>R Taking orfedos update</td>	0.	A same antetos ad	0+	R Taking orfedos update
A Al Sergiolitation A Al Sergiolitation I and the set of	1 ther -		1 Utar ·	
0 mm 0 mm <td< td=""><td>III User Group -</td><td>Add Training Definition</td><td>II User Group -</td><td>Update Training Definition</td></td<>	III User Group -	Add Training Definition	II User Group -	Update Training Definition
B C C S S S S S S <td>O Role -</td> <td>Training Code 0</td> <td>O Role v</td> <td>Training Code 6/10213</td>	O Role -	Training Code 0	O Role v	Training Code 6/10213
B tangang B tan	E Department -	Name Name	II Department	Name Data Structures
• sug	E Training Definition -	Description File v Edit v Insert v View v Format v Table v Tools v	Training Definition -	Description File + Edit + Insert + View + Farmat + Table + Tools +
3 ha has 3 ha ha has 3 ha ha has 3 ha has 3 ha has	A Training -		# Taking -	- + → runati - B / E Ξ Ξ Ξ Ξ Ξ Ξ - Ξ - Ξ Ξ
1 mar 1 mar 1 mar 1 mar 1 mar 1 mar 1 mar 1 mar 1 mar 1 mar 1 mar 1 mar 1 mar 1 mar 1 mar 1 mar 1 mar 1 mar 1 mar	О Таза Тура -		© Танк Тура -	Queue, Shok, Graph data structures are covered.
В замонти - В смонти - И В замонти - В смонти - И В замонти - В смонти - И A лизацияч В смонти - В смонти -	E Tem -		8 Tem -	
It havened tober - It havened tober - It havened tober - A havened tober - A havened tober - A havened tober -	El Measurement Set	2	The Measurement liet - +	2
A 80000 (Deep	III Measurement Ontenta -	Add	C Measurement Othera -	Chapter
	A statistics (Charts)		Ja Statistics (Charts)	

Figure-5.6.21: Add Training Definition Page

Figure-5.6.22: Update Training Definition Page

🔒 Guideal	Learch. Search adult -	🔒 Guide	al .	Search .	Seath	admin -	
1 A 1 B 1	Image: Control Image: Control Image: Control Image: Control	λ του Θ του	Library	yes was was			

Figure-5.6.23: Training Definition List Page Profile Page

Figure-5.6.24: Training Definition

5.6.2.5 Training Pages

These pages are consist of CRUD operations and more complex operations of trainings. The CRUD pages are designed as the rest of the system.



Figure-5.6.25: Add Training Page

Figure-5.6.26: Update Training Page

00	· terring and						09	A seere :
1 000 -						± true		
# UserGroup -	List of Training					E User Stop		20151 Computer Graphics 2
@ Rote -			Search			O Date		becaute:
E Department	Training Definition	* Trainer Section	Syllabus - C	70142 E	<u>.</u>	# Department		Aprilacional di Computer Construir anno anno anno anno anno anno anno ann
El Transing Defection -	Computer Displace	Atmat Ogiz 2	Computer Graphics Fall 2005 Sudaturs	20154		Training Outroll		- Of these 7 paid (spl.)
A Training	Computer Graphics	Toipe Cen 1	Computer Graphics Fall 2015 Subshure	20151		A Turing		
O Task Type -	Data Stractures	NAME 1	syfabus onek	20141 🚆		() Tank Type		Service a Marine - Deputing - McGrade - Average
E tem -	Cata Shuman	Annal Opur 2	sylabus onek	20141 😳		II Term		MT+3 29 65/902015 07.5 50.46 G # 10 55 50 40 G # 10
E Manuarement hat	Int. In Embedded Nyslams Development	Ukq 1		20142		C Measurement Se	e./e.	Programming Adoptment 2 10 15/12/2015 90 78.02 C # 10
I Measurement Drives -	intro. to Object Drianted Programming Languages and Systems	Sales 1		20151		I Mainument C	theis -	Programming Anlightment 3 50 11(010098 G = g
& materies (Charte)	Bitsang Vis Tal? emilie		Dente:		A107	de destance (Dram	0	Dens • Nov
								+ Add Tans

Figure-5.6.27: Training List Page

Figure-5.6.28: Training Profile Page

The training profile page (Figure-5.6.28) includes the tasks list assigned to the training. The task set and subscriber operations are managed from the training pages. If there is no task set user can create from the profile. If there is user can add tasks. In addition, listing and editing subscribers are added as button into training profile page.
Figure-5.6.29: Add Subscriber Page

Figure-5.6.30: Subscriber List Page

Add Subscriber page (Figure-5.6.29) includes 4 tabs: trainer, moderator, trainee and spectators. User can add and remove members from these tabs. Subscriber list page (Figure-5.6.30) shows the list of members as grouped.

5.6.2.6 Task Type Pages

The system includes basic CRUD operation pages of task types.

🔒 Guideal	Search. Search admin -	🔒 Guideal	Seath. Seath advis -
	🛋 land, - type - update		(A) tank () type () update
A User -		L User -	
III User Group -	Add Task Type	II User Group -	Add Tesk Type
@ Ros -	New Honework	0 km -	New Honevill
Department -	(C) Lipoteire	B Department -	C lopare
Training Definition -		Training Definition -	
A taxing -		A Taking -	
@ Task Type -		Ф. Тазік Тури	
E ten		E tes	
E Measurement bet		🖾 Measurement Set -	
🗐 Measurement Otheria -		Messurement Oritaria -	
dr Statistics (Charts)		de Basisties (Charts)	

Figure-5.6.31: Add Task Type Page

Figure-5.6.32: Update Task Type Page

I user II user Group II user Group II bepartment II bepartment II training	I User II User Group II User Group II Department II Training Definition II Training Definition II Training	🔒 Guideal		Search	Search	admin +
Luser Group - E User Group - B Role - D Department - T Taining Definition - T Taining C - T T Taining C - T T T T T T T T T T T T T T T T T T T	Luser - ILUser Group -		co task type list			
If User Group - © Role - © bepartment - © bepartment - © Training Definition - Training - © Task Type - © Task Type - © Task Type - I teasurement Set - I teasurement Citerta - I teasurement Citerta - I teasurement Citerta -	III User Group - ID Department - ID Department - ID Training Definition - ID Training Definition - ID Training Definition - ID Training Training - ID Training Definition - ID Training	🧘 User				
Role - Department - Taining Definition - Taining Definition - Taining -	Role Department Department Training Definition Training Definition Training Tra	11 User Group	 List of Task Types 			
Image: Department - Image: Department <td< td=""><td>Department Training Tra</td><td>Role</td><td>- Nama</td><td></td><td>Search:</td><td></td></td<>	Department Training Tra	Role	- Nama		Search:	
I Training Definition T Training Definition T Training T T Training T T T T Training T T T T T T T T T T T T T T T T T T T	 Training Definition Training Training Training T	Department	Fyam	(% ¥		
Intraining Definition Training Training <	Intraining Definition Training Training Task Type Term Term Measurement Set Measurement Criteria = ak statistics (Charts)	- Separatent	Homowork	0 ×		
Loo Training Training Task Type Term Measurement Set Measurement Criteria - Massurement Criteria - At Statistics (Charts)	Lab U A A I Training · Training · Training · Training · Training · Training · Measurement Set · Measurement Criteria · At Statistics (Charts) ·	Training Definition	Tionework	0 A		
Training - T	Training		Cab	0 ×		
Task Type Term Measurement Criteria - Massibilities (Charts)	Image: Construction Image: Construction	A Training	- Quiz	0 4		
Term - Massurement Set - Measurement Criteria - - An Statistics (Charts)	Term - Messurement Set - Messurement Criteria - Al: Statistics (Charts)	Task Type	Showing 1 to 4 of 4 entries		Delete	Apply
Measurement Set Massurement Critteria - Massurement Critteria - M Statistics (Charts)	Measurement Set Measurement Orteria Measurement Orteria	🗄 Term	•			
Measurement Oriteria - de Statistics (Charts)	Messurement Criteria - dr. Statistics (Charts)	🗄 Measurement Set	*			
all Statistics (Charts)	. All Statistics (Charts)	🗐 Measurement Criter	ia -			
		📲 Statistics (Charts)				
			Copyright	2014 www.guideal.com		

Figure-5.6.33: Task Type List Page

5.6.2.7 Term Pages

The system includes basic CRUD operation pages of terms.

🔒 Guideal	Bearch Reach advis -	 Guideal		Search	Seath adula -
	Contraction (1997) and	00	A barry to	m spdale	
1 User -		± ∪ser -			
III User Group -	Add Term	E User Group -	Add Term		
O Role -	Name [Surre	O Rola -	None	\$0101	
E Department -	Anna II	B Department -	Active	*	
II Training Definition -	Add Continue Adding	Training Definition -		C Update	
A training -		A Training -			
O Task Type -		0 Task Type -			
E Term -		Tem -			
E Measurement Bet		🗄 Measurement Set 🛛 -			
🗄 Measurement Ontena -		🛙 Measurement Orteria -			
alt statistics (Charts)		de Statistics (Charts)			

Figure-5.6.34: Add Term Page

Figure-5.6.35: Update Term Page

Co ▲ training term tet ▲ User - III User Group - III Training Dehnition - III Training - IIII Training - IIII Training - IIII Training - IIII Training - IIIII Training - IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Co It training term training ▲ User - Ⅱ User - Ⅲ User - Ⅲ User - Ⅲ User - Ⅲ User - □ Department - □ Department - □ Training term - □ Training * List of lactive Terms □ Training * - □ Measurement Criteria * - □ Measurement Criteria * List of 2 r2 refres □ Delate Apply <th>C 0 ▲ User ■ User Group ● Role ● Role ■ Department ● Training Definition ● Training ● Term ● Measurement Critera= ● Massurement Critera= ● Statistics (Charts)</th> <th>d Guideal</th> <th></th> <th>Search</th> <th>Search</th> <th>admin 👻</th>	C 0 ▲ User ■ User Group ● Role ● Role ■ Department ● Training Definition ● Training ● Term ● Measurement Critera= ● Massurement Critera= ● Statistics (Charts)	d Guideal		Search	Search	admin 👻
I User I II User Group I.ist of Active Terms II User Group I.ist of Active Terms II Department III Statistics II Training Definition III statistics (Charts)	List of Active Terms List of Active Terms List of Active Terms Department Training Definition Training Cellete List of I tertles Delete Name List of Inactive Terms Delete Name List of Inactive Terms List of Inactive Terms List of Inactive Terms Name Name Secret Name Secret Name Secret Secret Secr	List of Active Terms Bole Department Training Massurement Set Massurement Criteria al statistics (Charts)					
List of Active Terms List of Active Terms Role Role Role Role Role Role Role Rol	I User - III User Group - III User Group - III Department - III Department - III Training Definition - III Training Definition - III Training Cefinition - III Meassurement Set -	List of Active Terms List of Inactive T					
III User Group - III User Group - III Repartment - III Department - III Training Definition - III Training Continue - III Training - <td>If User Group - In Department - In Department - In Training Definition - In Training Definition - In Task Type - In Task Type - In Term - In Term - In Massurement Criteria <t< td=""><td>III User Group - III Department - III Department - III Training Definition - III Training Definition - III Training -<td>L User</td><td>•</td><td></td><td></td><td></td></td></t<></td>	If User Group - In Department - In Department - In Training Definition - In Training Definition - In Task Type - In Task Type - In Term - In Term - In Massurement Criteria <t< td=""><td>III User Group - III Department - III Department - III Training Definition - III Training Definition - III Training -<td>L User</td><td>•</td><td></td><td></td><td></td></td></t<>	III User Group - III Department - III Department - III Training Definition - III Training Definition - III Training - <td>L User</td> <td>•</td> <td></td> <td></td> <td></td>	L User	•			
Name 20151 <td>Image: Search in the search in th</td> <td>Role - Department - Training Definition - Training Definition - Training <</td> <td>III User Group</td> <td>List of Active Terms</td> <td></td> <td></td> <td></td>	Image: Search in the search in th	Role - Department - Training Definition - Training Definition - Training <	III User Group	List of Active Terms			
Name Department Training Definition Training	Mame Image: Constraint of the states of th	Mame Department Training Definition Training T List of Inctive Terms Task Type Term Term Measurement Criteria Measurement Criteria Massurement Criteria Massurement Criteria	⑦ Role	-		Search:	
Image: Department 20151 Image: Training Definition Showing 1 to 1 of tenties Image: Training Image: Training Image: Tr	Image: Department - Image: Training Definition - Image: T	Department - In Training Definition - Training - Training - Training - Task Type - Term - Term - Measurement Set - Massurement Criteria In Statistics (Charts) -		Name	*		
Showing 1 b 1 of 1 extense Training Training Training Training Training Training Training List of Inactive Terms Searche Searche Searche 20141 20142 20142 Statistics (Charts) Delete	Image: Training Definition Image: Training Image: T	Showing 1b 1 of 1 of the entries Training Definition • Training • Training • Training • Training • Training • Training • List of inactive Terms Search: • Mane • 20141 20142 Showing 1 b 2 of 2 entries Browing 1 b 2 of 2 entries	Department	* 20151	© ×		
	Image Training Cetinition - Training Training	 Training Definition Training Training Task Type Term Massurement Set Massurement Criteria Massurement Crit		Showing 1 to 1 of 1 entries			
Training • Task Type • Term • Measurement Set • Measurement Criteria • • Id Statistics (charts)	List of Inactive Terms	Training - Training - Task Type - Term - Term - Measurement Set - Measurement Criteria Is statistics (Charts)	Training Definition	¥		Delete	 Apply
List of Inactive Terms List o	List of Inactive Terms Task Type Task Type Term Term Measurement Set Measurement Criteria Measurement Criteria Measurement Criteria Measurement Criteria Measurement Criteria	List of Inactive Terms List o	Training	*			
Image: Task Type - Image: Term - <t< td=""><td>O Task Type - I Term - I Term - I Measurement Set - I Measurement Criteria - I Measurement Criteria - I Measurement Criteria - I Measurement Criteria -</td><td>O Task Type - I Term - I Measurement Set - I Measurement Criteria - I Statistics (Charts) -</td><td></td><td>List of Inactive Terms</td><td></td><td></td><td></td></t<>	O Task Type - I Term - I Term - I Measurement Set - I Measurement Criteria - I Measurement Criteria - I Measurement Criteria - I Measurement Criteria -	O Task Type - I Term - I Measurement Set - I Measurement Criteria - I Statistics (Charts) -		List of Inactive Terms			
Image: Term •	Image: Term Image: Massurement Set Image: Massurement Set Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria Image: Massurement Criteria	Image: marked set of the s	Task Type	-		Search:	
Image: Term 20141 Image: X Image: Measurement Set 20142 Image: X Image: Measurement Criteria - Missing 1b 2 of 2 entries Image: X Image: Measurement Criteria - Missing 1b 2 of 2 entries Image: X		Term		Name	*		
Measurement Set Measurement Criteria Measurement M	Measurement Set Apply Apply	Imasurement Set • Imasurement Criteria - Imasurement Criteria - Imasurement Criteria - Image: Criteria - Image: Criteria - Image: Criteria - Image: Criteria - Image: Criteria -	🖃 Term	20141	6 ×		
Showing 1 to 2 of 2 entries Showing 1 to 2 of 2 entries Apply At Statistics (Charts)	Shopping 1 to 2 of 2 entries Image: Shopping 1 to 2 of 2 entries Delote Apply Image:	Showing 1 to 2 of 2 entities Image: Measurement Criteria - Apply Image: I	Measurement Set	20142	© ×		
Measurement Criteria - Dekite Apply	Measurement Criteria - Delete Apply Apply	Measurement Onterla - Dekle Apply		Showing 1 to 2 of 2 entries			
all Statistics (Charts)	A Statistics (Charts)	d Statistics (Charts)	Measurement Criteria	•		Delete	 Apply
	M. Construct Assumption		I Statistics (Charts)				
			iii outiones (ontito)				
				Copyright 2	014 www.guideal.com		
Capyright 2014 www.guideuit.com	Copyright 2014 www.guideal.com	Copyright 2014 www.guideal.com					

Figure-5.6.36: Term List Page

Term list page (Figure-5.6.36) splitted into 2 parts. The first one shows the active terms and second shows inactive ones.

5.6.2.8 Measurement Set Pages

The system includes basic CRUD operation pages of terms.

🔒 Guideal	Seath. Seath addin -	n Guideal	Seath. Seath adds -
0.	A incusvement set all	00	n mussement set tit
1 User -		1 User -	
III User Group 🔹	Add Measurement Set	II User Group -	List of Measurement Sets
© Rale	Reserves for July Party Street	0 Aut -	Seth
E Department +	Peret deter Manusement-	Bepartment -	and G × 0
Training Definition	Add Continec Adding	Training Definition	X 2 Shee X 2
# Taising +	_	A Tuning -	Drawing 1 to 2 of 3 entries . Acces
@ Task Type -		O Task Type -	
🖾 Term 🔹		B test	
III Measurement Bet		B Measurement Bet -	
Measurement Criteria -		🖲 Measurement Otteria -	
Ja Bratistics (Charts)		A Statistics (Charts)	

Figure-5.6.37: Add Measurement Set Page

Figure-5.6.38: Measurement Set List Page

5.6.2.9 Measurement Criteria Pages

The system includes basic CRUD operation pages of terms.

n Guideal		Search. Search	admin -	🔒 Guideal	fearch	fearth abris -
00	• researched	() offers () and			measurement criters int	
A ther -				1 User -		
II User Group -	Add Measurem	sent Otheria		II User Oroup -	List of Measurement Citleria	
O Role -	Description	File * Ibil * Insert * View * Pormal * Table	* Teoh *	O Role -		Search
E Department -		- ↑ ↑ remati - B / E 亜 田 田	II · II · II (II	E Department -	1 Parere Measuremane Unterna	asof SX D
Training Definition				I Training Definition -	2 1 Showing 110 2 of 2 errises	dwerdwer 🖉 🛪 🖻
A Training -				A Training -		Delete • Apple
Ø Task Type –		2		О Тазік Туре -		
E tem ·	Measurement for	No Measurement Set	•	El Term -		
🗄 Measurement Set 👘 -	Parent Monarement	No Measurement Criteria	•	El Measurement Set -		
🗄 Weasurement Onterla -		Add Continue Adding		🗄 Measurement Orlieria -		
& Matteries (Charts)				& Batistics (Charts)		

Figure-5.6.39: Add Measurement Criteria Page Figure-5.6.40: Measurement Criteria List Page

5.6.2.10 Grade Page

The system includes grade pages for tasks of trainings.

🔒 Guideal					S	earch				Searc	h				admin -
c		task j	grade												
L User	•														
User Group	*	Grade Task	"Progra	amminį	g Assigr	nment 1									
⑦ Role	-										Se	arch:			
Department	•	Name 🔺	q1	q2	q3	q4	q5	q6	q7	q8	q9	q10	q11	q12	•
Training Definition	•	e1880913	5 /10	7 /15	10 /15	11 /20	3 /5	2 /5	1 /5	2 /10	6 /10	2 /5	1 /5	5 /10	
Training		e1881143	2 /10	5 /15	11 /15	10 /20	1 /5	4 /5	4 /5	7 /10	6 /10	2 /5	2 /5	3 /10	
Task Type	•	e1881200	2 /10	4 /15	8 /15	7 /20	4 /5	4 /5	4 /5	5 /10	7 /10	2 /5	3 /5	6 /10	
🗐 Term	-	e1881358	10 /10	15 /15	13 /15	18 /20	4 /5	4 /5	4 /5	9 /10	9 /10	4 /5	3 /5	7 /10	
Measurement Set	¥	e1881705	5 /10	10 /15	12 /15	18 /20	4 /5	4 /5	4 /5	7 /10	8 /10	4 /5	4 /5	9 /10	
🗄 Measurement Crite	ria	e1881747	10 /10	15 /15	15 /15	20 /20	5 /5	5 /5	5 /5	10 /10	10 /10	5 /5	5 /5	10 /10	
I Statistics (Charts)		Showing 1 to 1	3 of 13 en	tries											Y Submit
															submit

Figure-5.6.41: Grade Page







APPENDIX C – Use Case Diagram List



APPENDIX D – Use Case Diagram Assign





APPENDIX E - Use Case Diagram Statistics



APPENDIX H – Use Case Diagram Smart Actions





APPENDIX I – Sequence Diagram Basic



APPENDIX J - Sequence Diagram List



APPENDIX K – Sequence Diagram Assign



APPENDIX L – Sequence Diagram Update Entity

APPENDIX M – Sequence Diagram PrepareExam







APPENDIX O – Sequence Diagram Remove Entity





APPENDIX P – Sequence Diagram File Upload&Download

APPENDIX R - Sequence Diagram API Register



APPENDIX S – Database ER Diagram



APPENDIX T - Package Diagram



APPENDIX L - Class Diagram Controller







APPENDIX L - Class Diagram Util

