

# V2Soft

## Viki Software

**Project Name:** RAS-2005 (Restaurant Automation System)

**Project Id:** 1

**Document Name:** RAS-2005 INITIAL DESIGN REPORT

**Document Id:** 1-ID01

**Document release:** 1-ID01-1

**Document Description:**

This document is one of the most important steps of software project development that plays an important role when passing from analysis report to design report of Restaurant software project RAS-2005 that is, initial design report of our Restaurant software project RAS-2005.

<b>V2Soft RAS-2005 Project proposal</b>				
<i>Responsibility</i>	<i>Name</i>	<i>Prepared by</i>	<i>Inspected by</i>	<i>Signature</i>
Project Manager	Çağdaş EKİNCİ	√	√	
Designer	Atilla ACAR	√		
Designer	Mevlüt BALLI	√		
Designer	Özkan ÇELİK	√		

## CONTENTS

1. INTRODUCTION .....	2
1.1 Problem Definition .....	2
1.2 Scope .....	2
2. Use case diagrams .....	3
3. Class diagrams.....	6
4. Sequences diagrams .....	7
5. Collaboration diagrams .....	9
6. Activity diagrams .....	12
7. Structure charts .....	20
8. Gantt chart .....	23
9. Conclusion .....	24

## **1. INTRODUCTION**

### **1.1 Problem Definition**

RAS-2005 (Restaurant Automation System) is detailed software for restaurants that helps the organization in restaurants to be handled more easily. Since the market is growing rapidly parallel to the increase in population and demand to eat outside all restaurants need some automation software to become more organized and respectful situation in the market. Most important facilities needed in these software include, low price, easy usage, online ordering and reservation capability, capability to handle basic accounting, easy to adapt to, respectful technical support for free if possible, long term guaranty, security and integrity.

### **1.2 Scope**

RAS-2005 is a restaurant automation system, which is designed for make life easier for internet customers, restaurant owners, waiters in restaurants and customers that will come to restaurant for having their meals. When we look at the advantages for the internet using customers, we can see that life will be easier by online ordering system. They will be able to make online orderings via internet from their homes. Moreover, with the help of user name and password facility they will not be bothering with the internet related detailed jobs. When we come to the advantages of this software for the Restaurant owners, we will see that they will be able to manage their basic accounting such as income / expenditure position at any time they want. With the help of this software there will be an increase in the speed of the service given in the restaurant and the system will be better organized. This will lead to an increase in the number of the customers for the restaurant meaning more

money for the restaurant owners. Another advantage of our software will help waiters in the restaurants in a way that they will not be coming and going that many times for a customer than they have been used to. This means waiters wont get tired any more and will have better communication with the customers resulting in the satisfaction of the customers. In terms of the customer at restaurant, they will not be waiting for waiter anymore and they will save time from this fact. Again this will result in more satisfactory customers. In conclusion, RAS-2005 will ease and automate ordering system over internet and palm devices. That is, better management and better organization in restaurants both for the sake of customers, stuff and the restaurant owners.

## 2. USE CASE DIAGRAMS:

Use case analysis performed by Atilla Acar and Çağdaş Ekinci. Our main aim here is to determine actors and their activities. Use case diagrams based on there actor group. They are web users, Cashiers/Administrators and Waiters. In diagrams one can see related actions that can be performed by each user group.

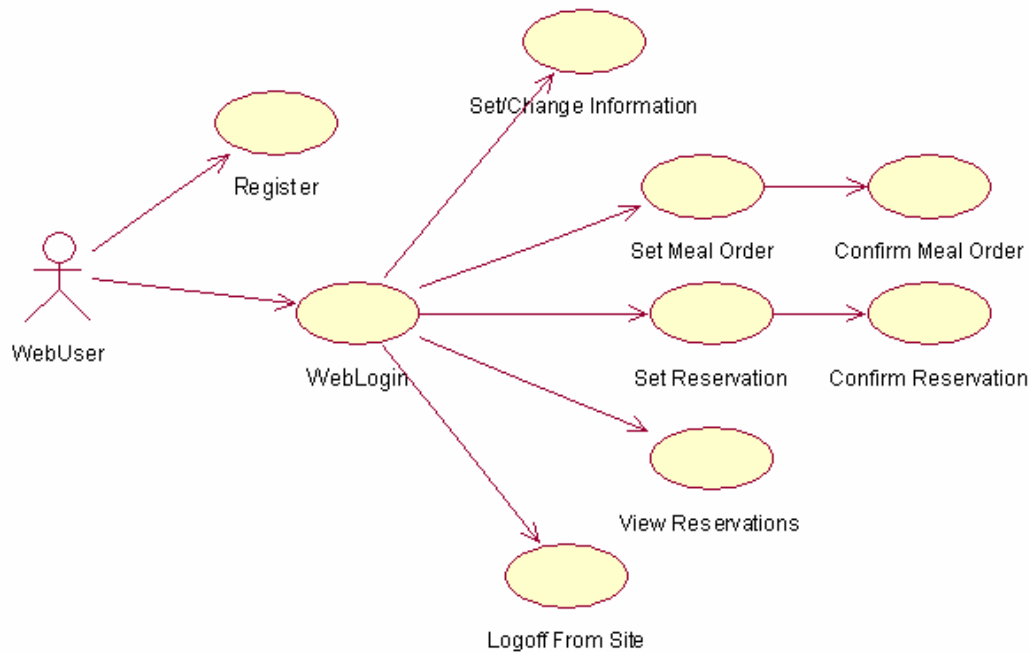


Figure1: Use case of WebUser

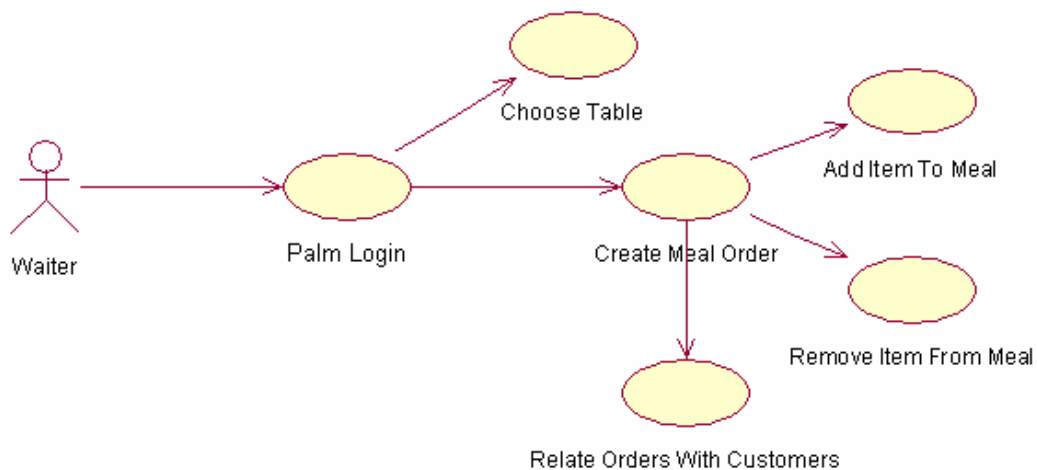
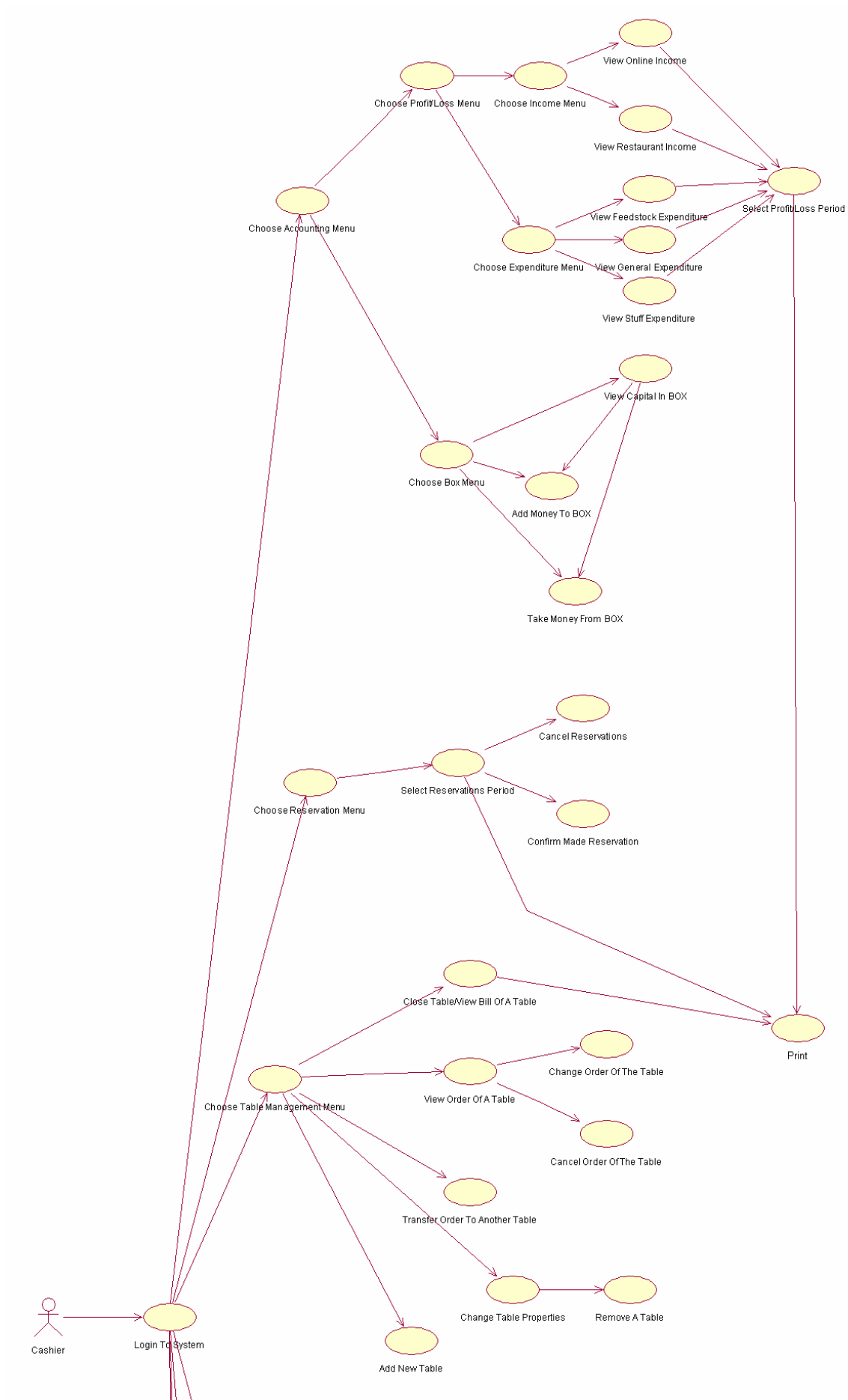
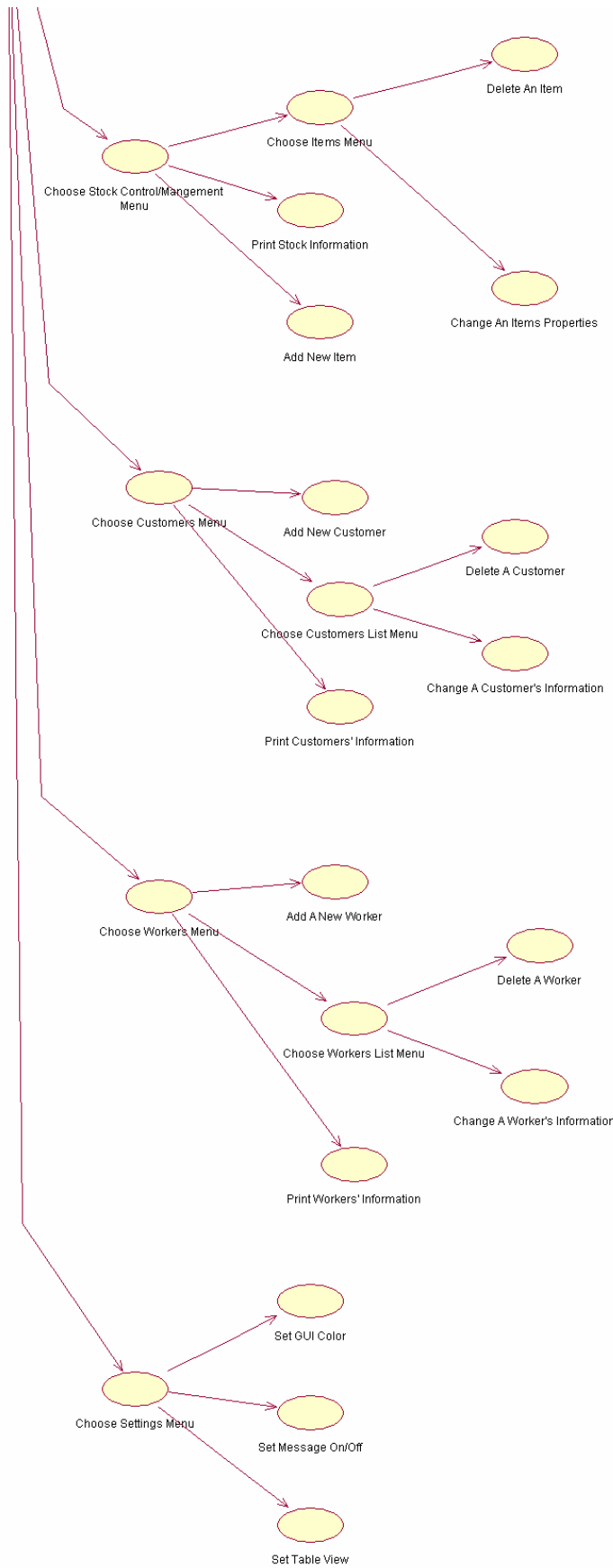


Figure 2: Use case of Waiter





*Figure 3 :Use case of Cashier*

### 3. CLASS DIAGRAM:

Classes are analyzed by all V2 team members carefully. Although in this report we not need to show all of classes and their properties, this main classes and their properties are a sign of project future. Here you can see our main classes which will be decomposed in design part of project.

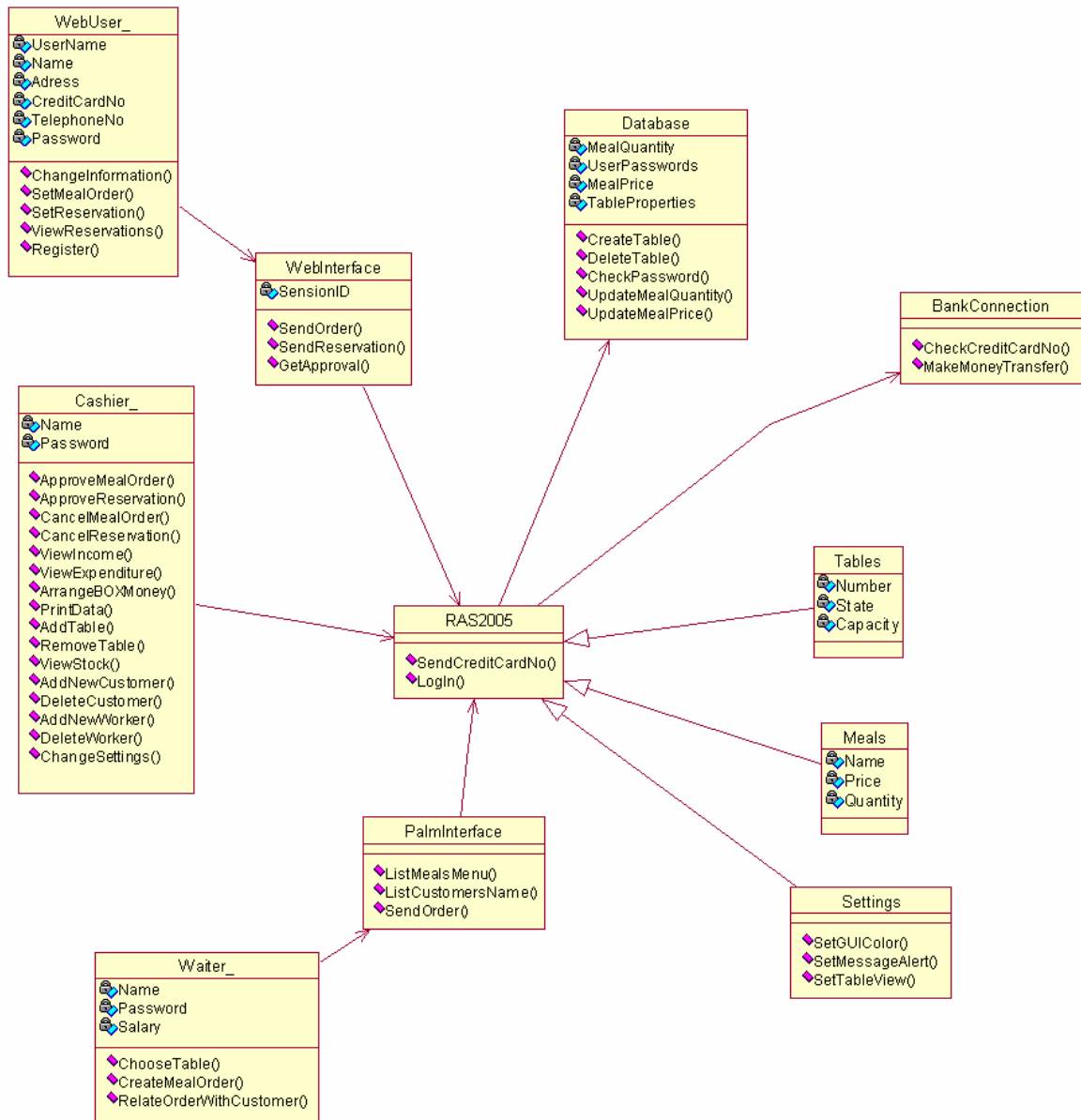


Figure 4: Class diagram

#### 4. SEQUENCESS DIAGRAMS:

Sequences diagrams analyzed and designed by Çağdaş Ekinci and Özkan Çelik. Not all sequences shown here because of maximum number of page restriction. Here you can see some of our interactions in time sequences. They are all related with use case diagrams.

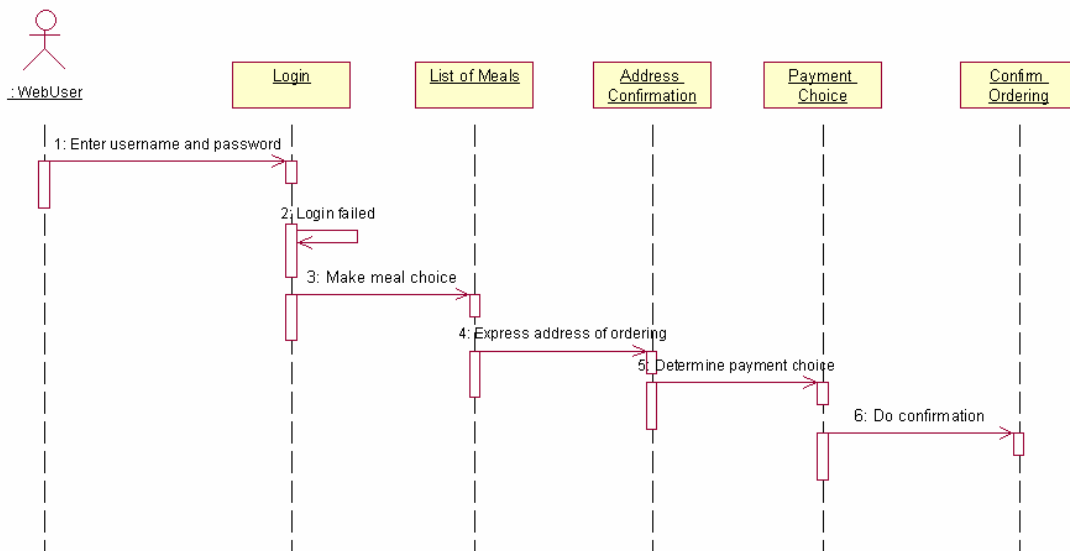


Figure5: Sequence diagram of MakeOnlineOrder

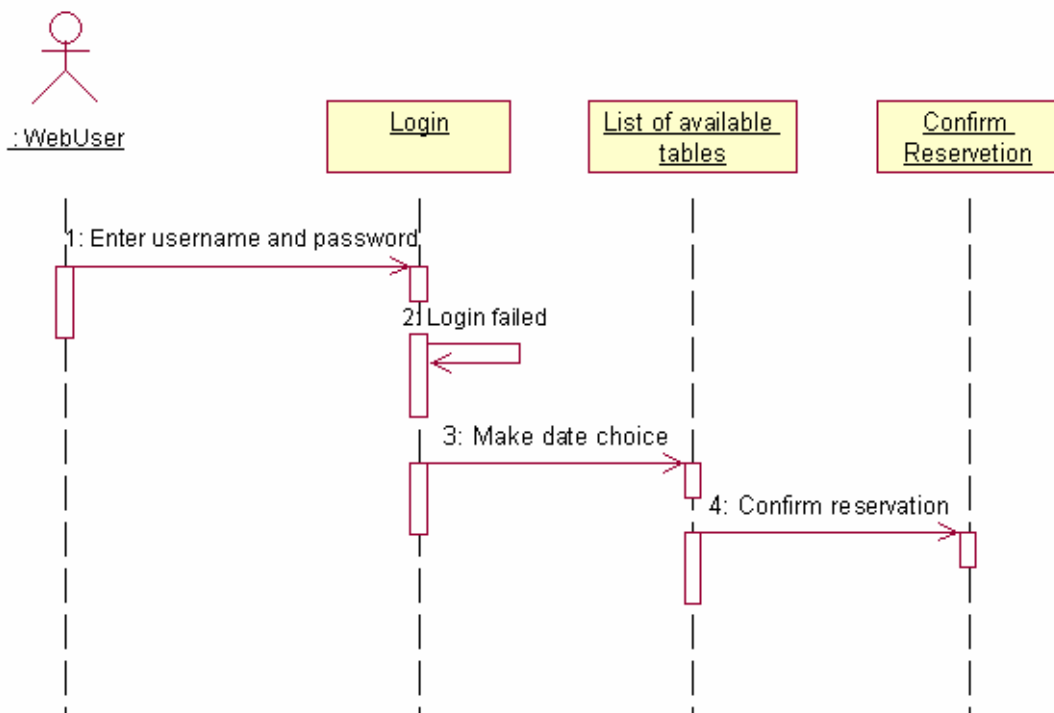


Figure 6: Sequence diagram of MakeOnlineReservation

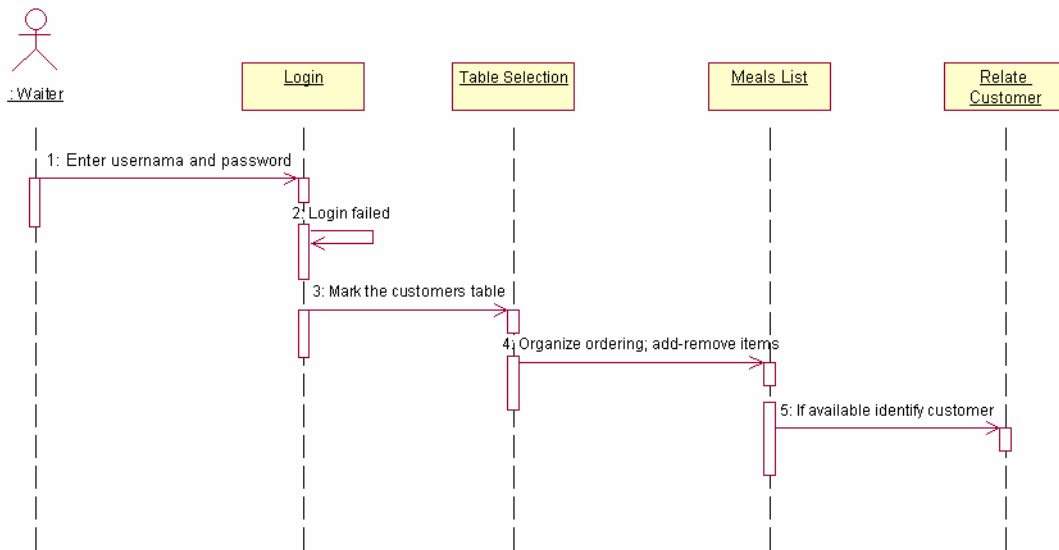


Figure 7: Sequence diagram of TakeOrdering

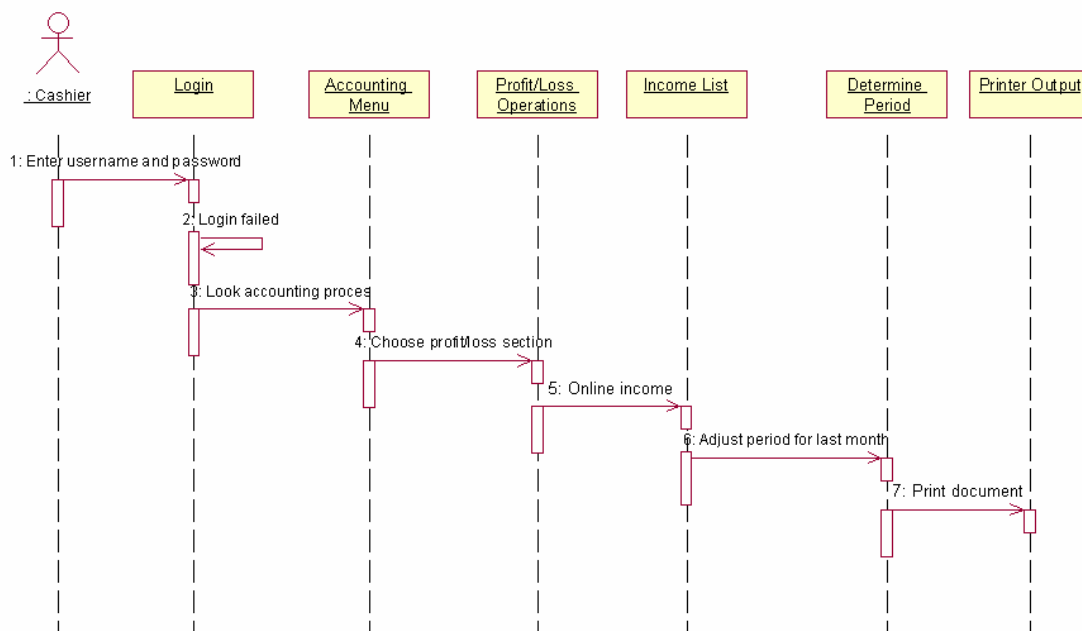


Figure 8: Sequence diagram of PrintLastMontsOnlineIncome

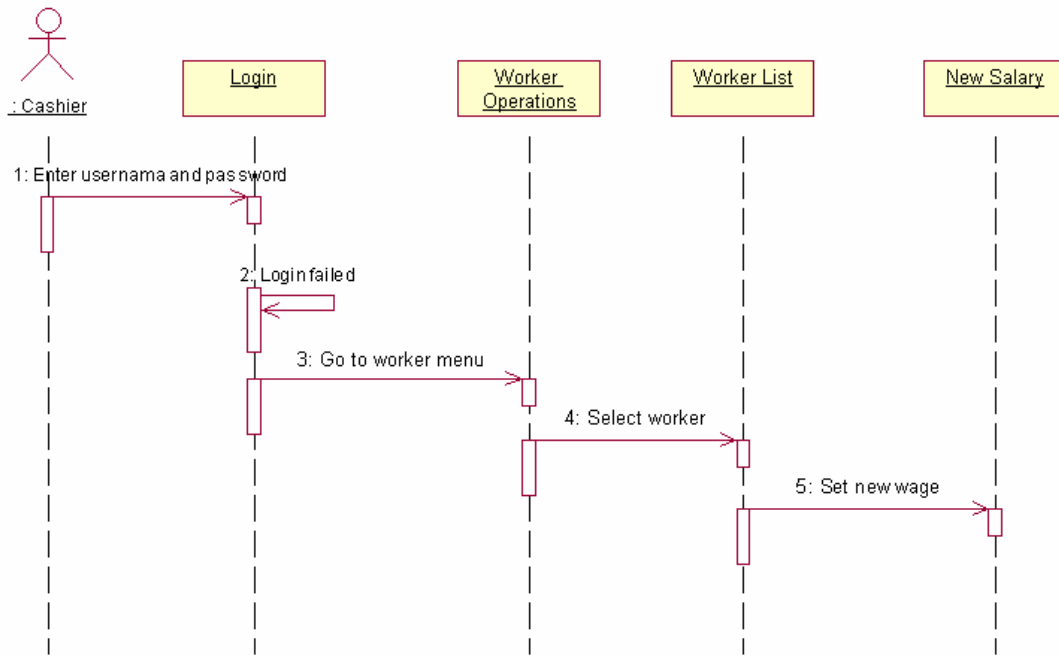


Figure 10: Sequence diagram of ChangeWorkerSalary

### 5. COLLABORATION DIAGRAMS:

Collaboration diagrams are analyzed and designed by Çağdaş Ekinci and Özkan Çelik because of their relation with sequences diagrams.

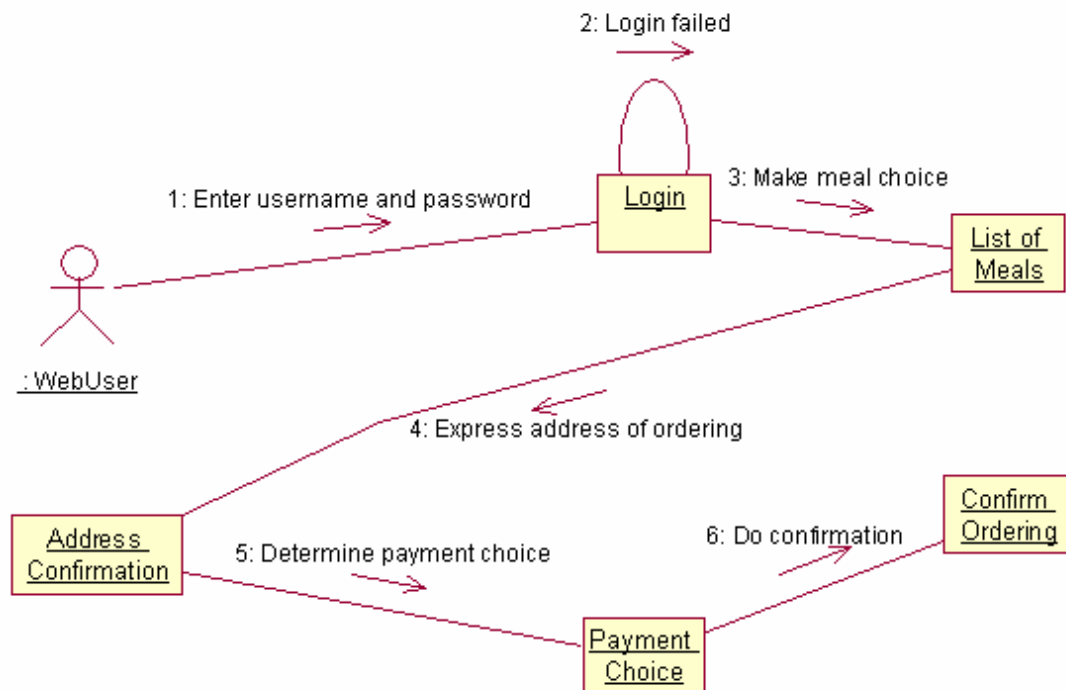


Figure 10: Collaboration diagram of MakeOnlineOrder

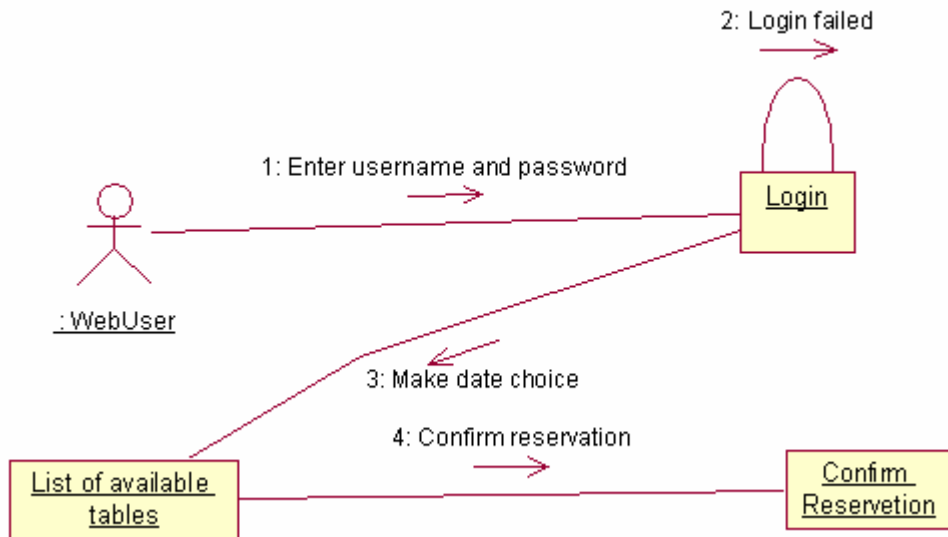


Figure 11: Collaboration diagram of MakeOnlineReservation

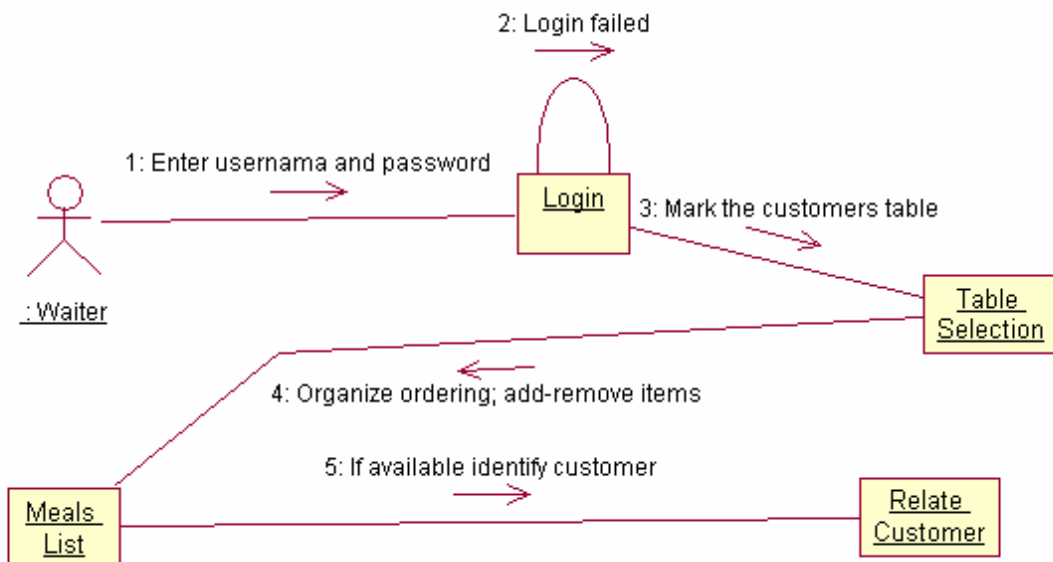


Figure 12: Collaboration of TakeOrdering

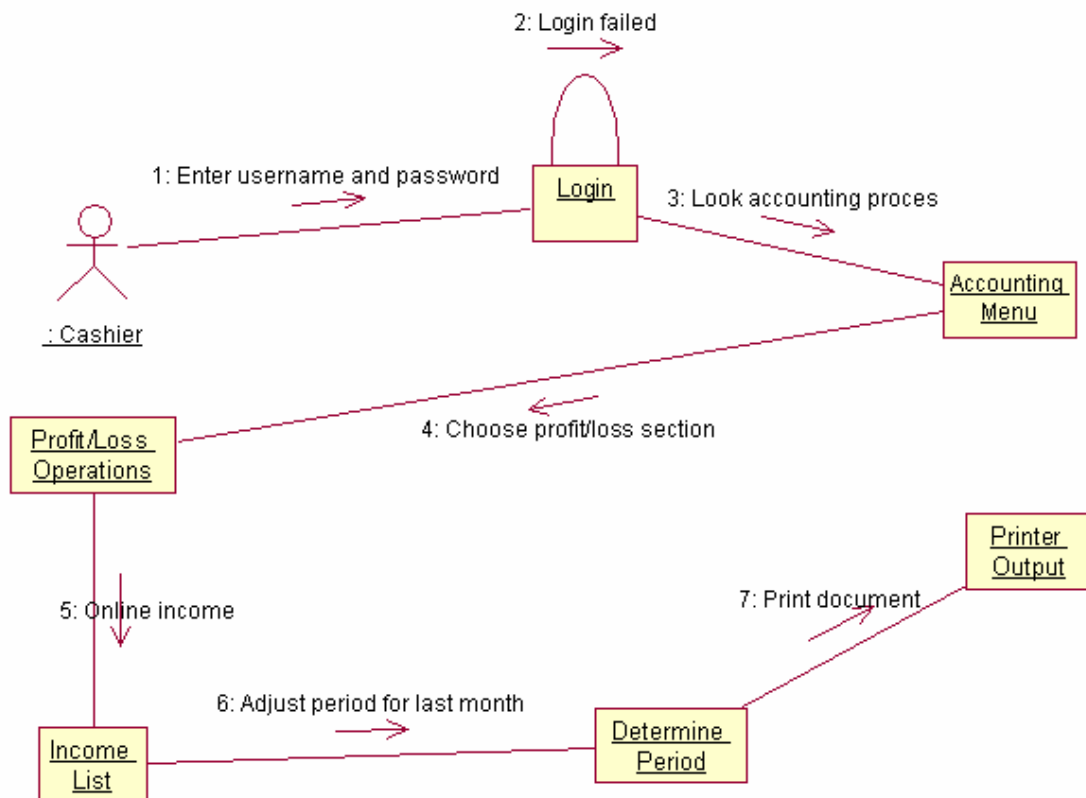


Figure 13: Collaboration diagram of PrintLastMonthsOnlineIncome

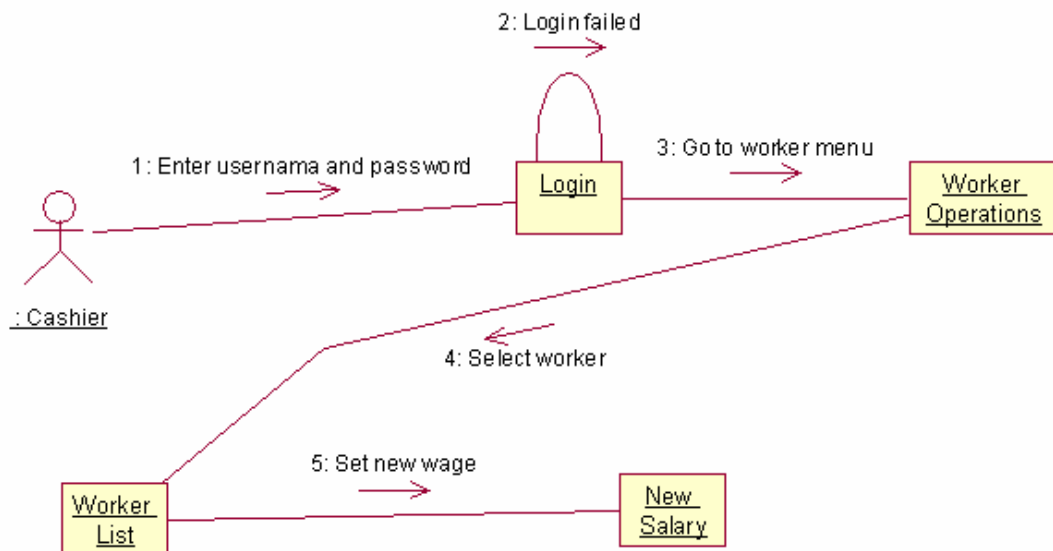


Figure 14: Collaboration diagram of ChangeWorkerSalary

## 6. ACTIVITY DIAGRAMS:

Activity diagrams are designed by Mevlüt BALLI and Atilla ACAR. Main aim is here to state activation between user and system in a simple but enough way. User and Our RAS-2005 is always in interaction and these activation must be determined carefully. You can see this transactions and processes here.

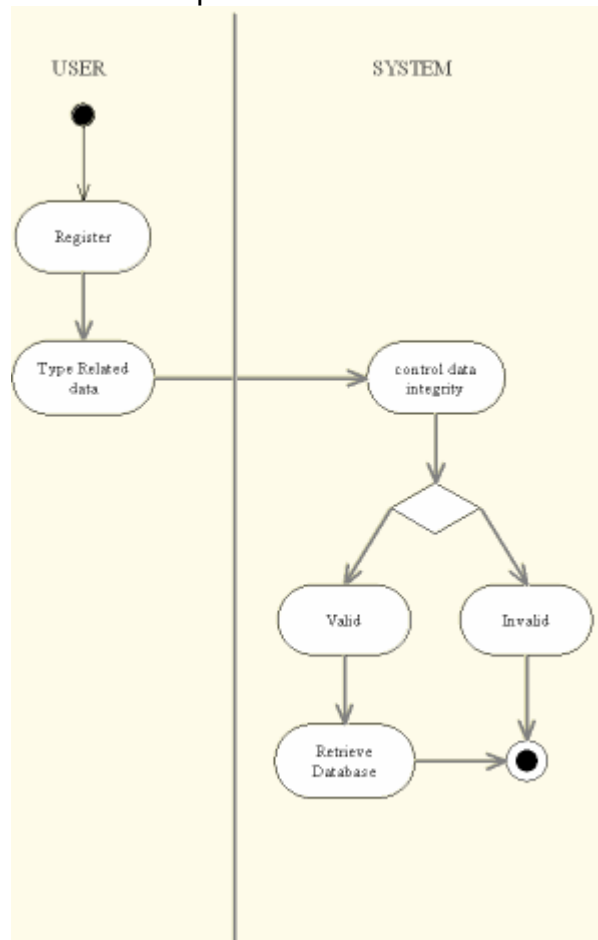


Figure 15: Activity diagram for registration a new user

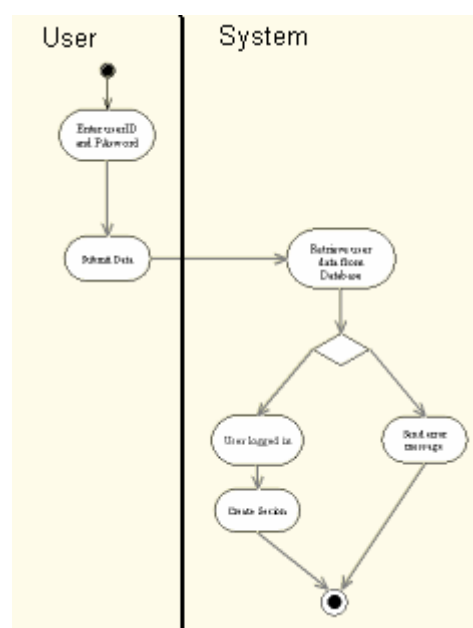


Figure 16: Activity diagram for login process

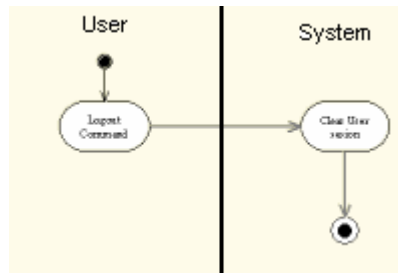


Figure 17: Activity diagram for logout process

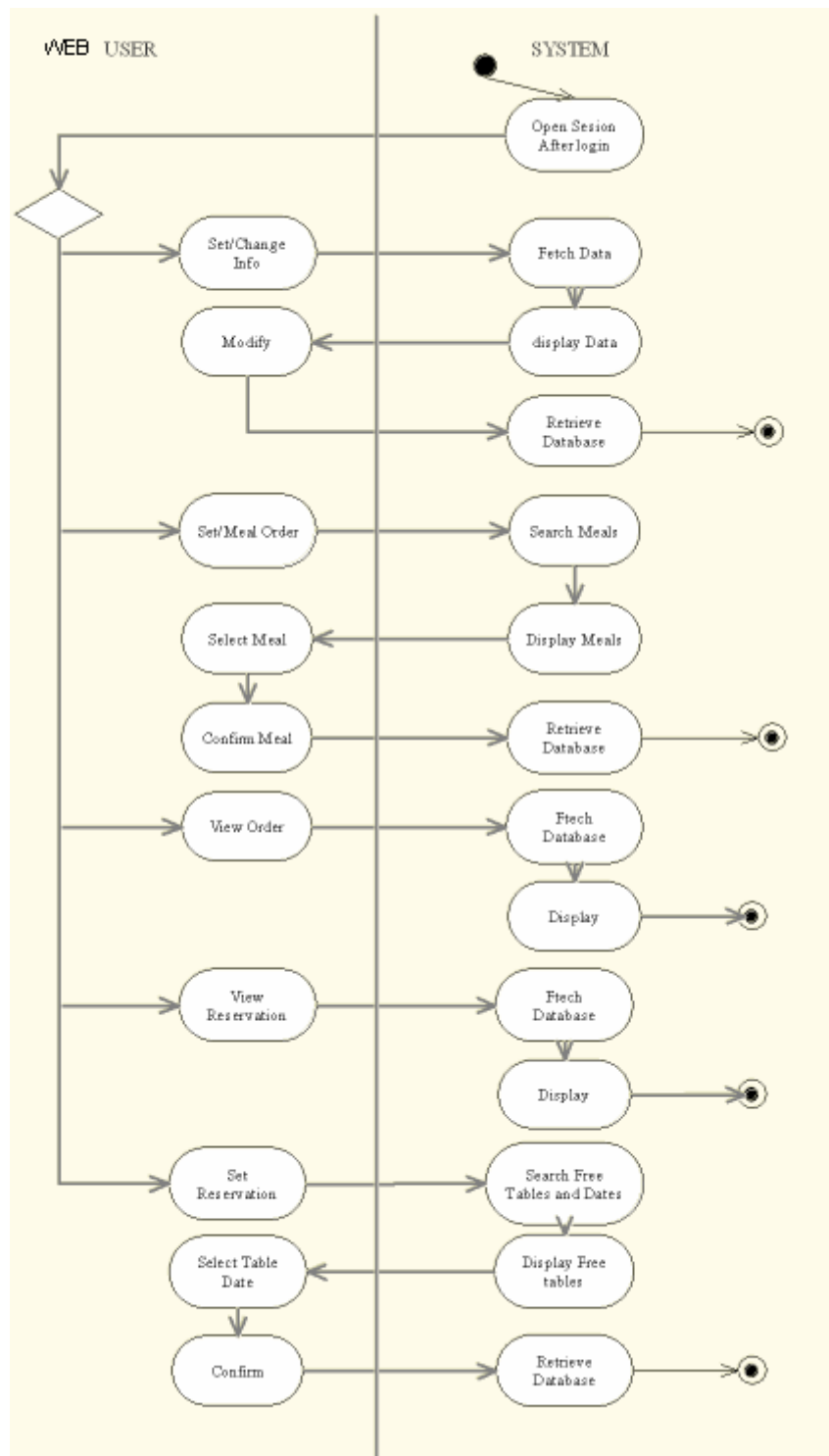


Figure 18: Activity diagram for set of process of web user

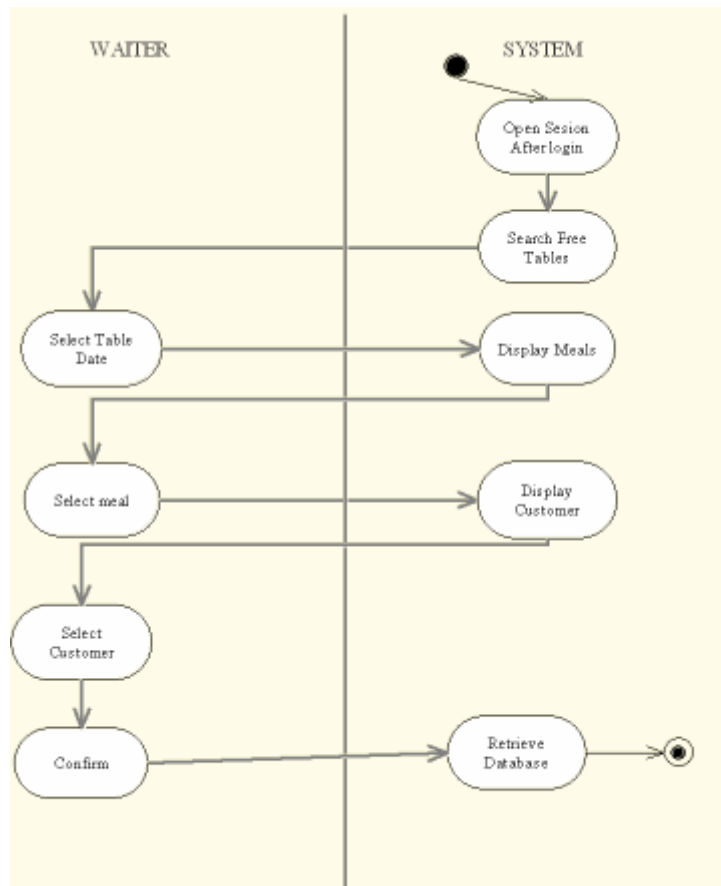


Figure 19: Activity diagram for set of process of waiter

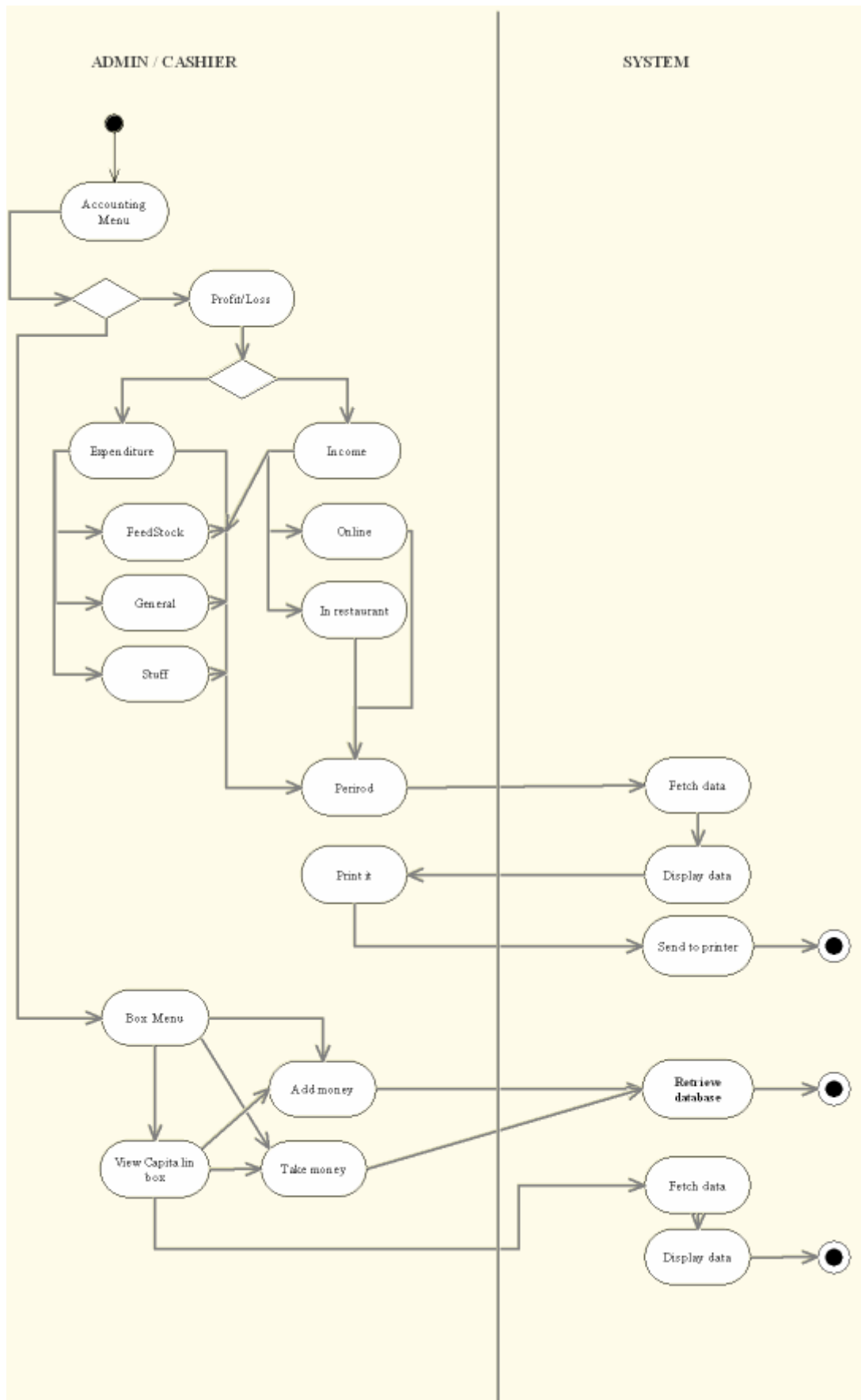


Figure 20: Activity diagram for accounting processes

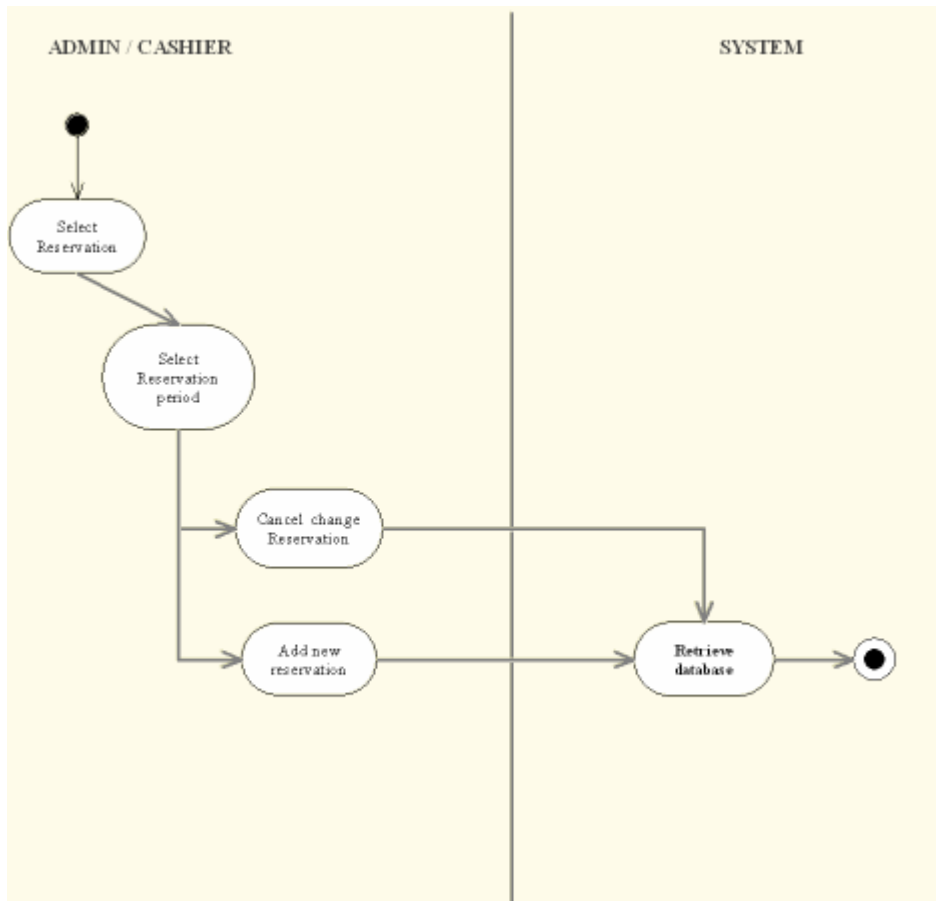


Figure 21: Activity diagram for reservation processes

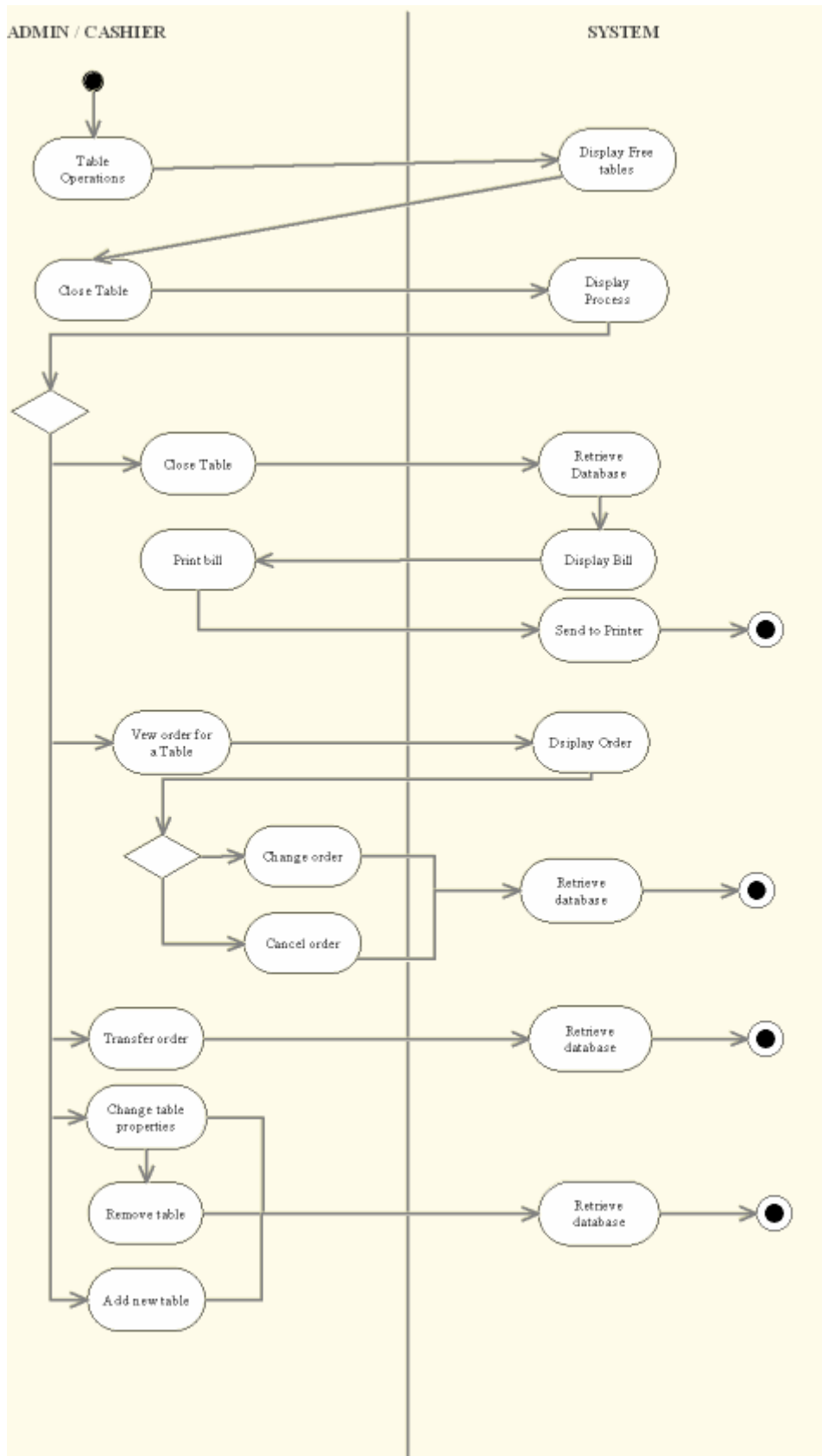


Figure 22: Activity diagram for table and order management processes

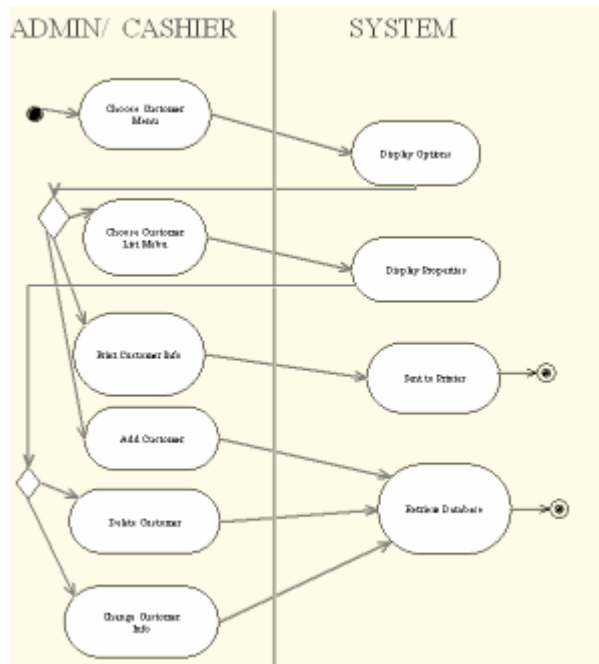


Figure 23: Activity diagram for customer management processes

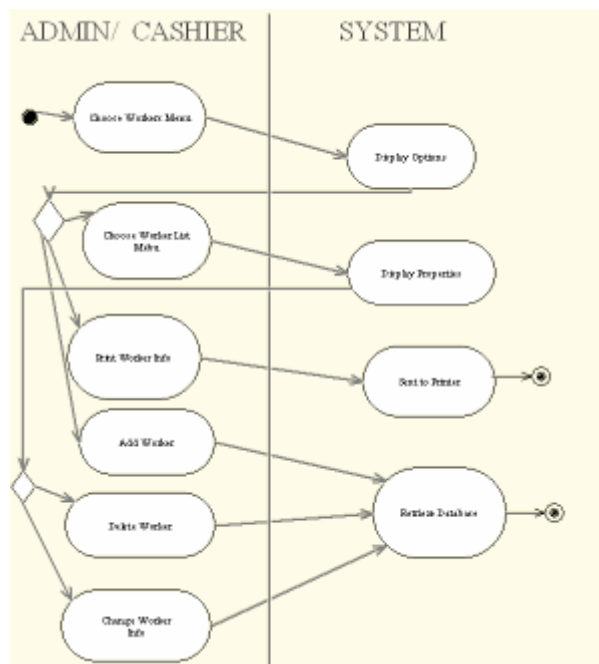


Figure 24: Activity diagram for workers management processes

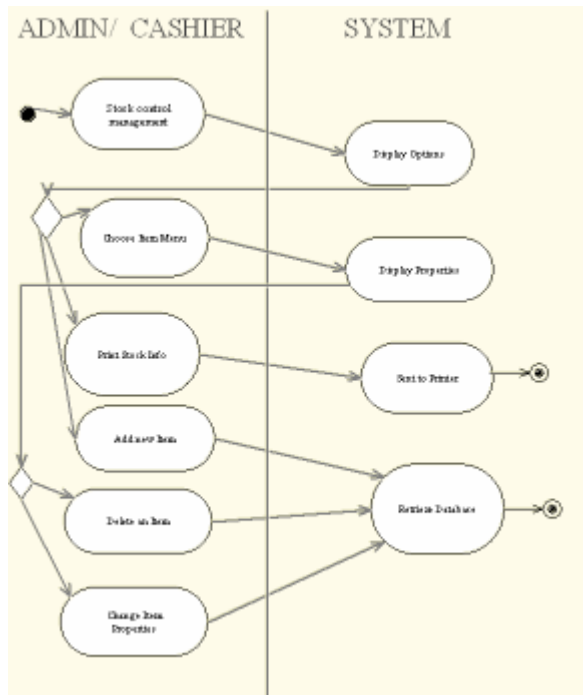


Figure 25: Activity diagram for stock control and management processes

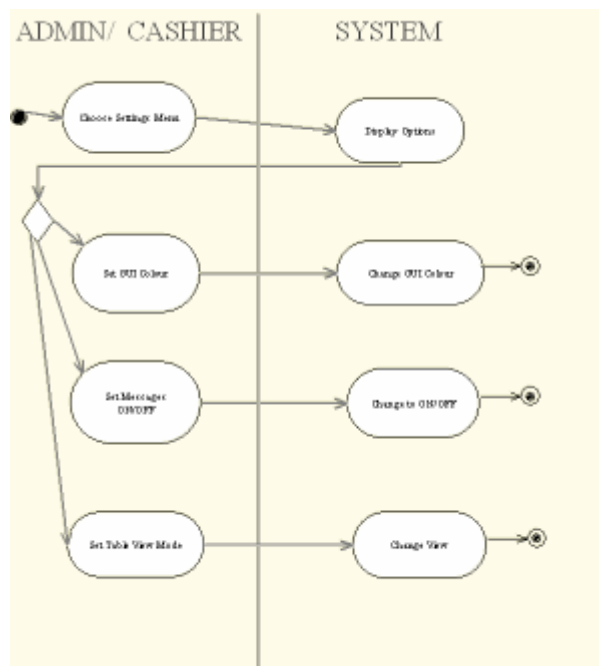


Figure 26: Activity diagram User interface and other Settings processes

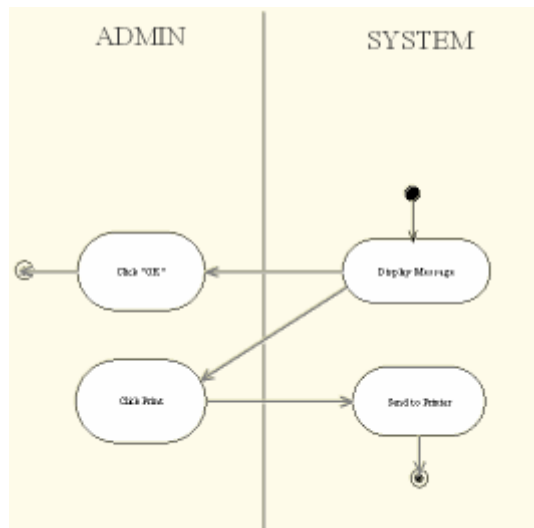


Figure 27: Activity diagram for message handling processes

### 7. STRUCTURE CHARTS:

Structure charts are designed by Mevlüt BALLI and Atilla ACAR. Structure charts shows our program hierarchy in a simple way. You can see our program's menu and process structure here.



Figure 28: Structural diagrams for web based application

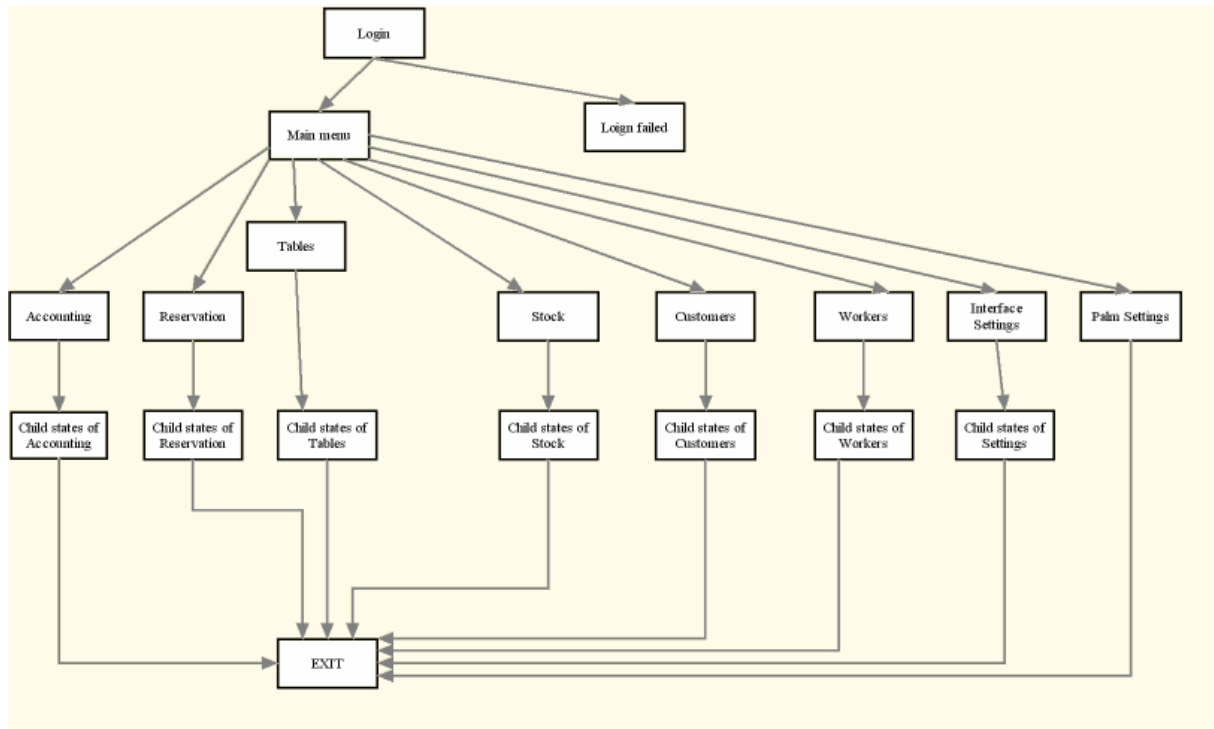


Figure 30: Structural diagrams for server

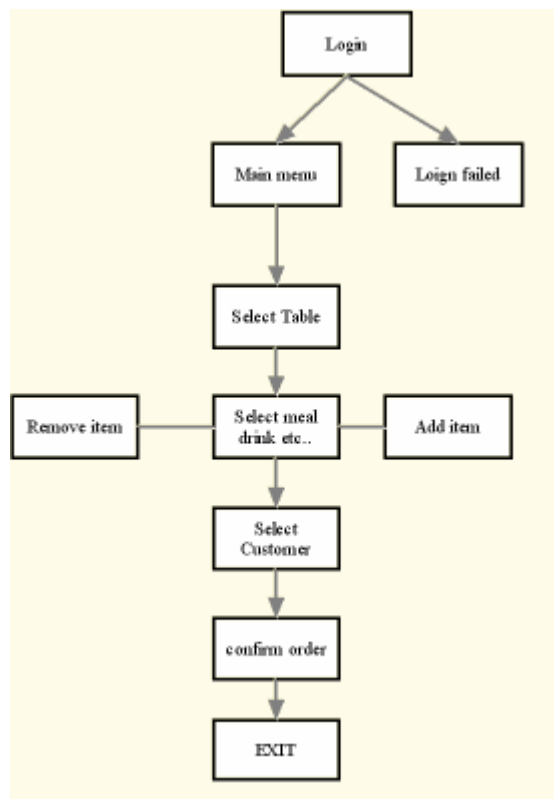


Figure 31: Structural diagrams for server

### 8. GANTT CHART:

Gantt chart designed by Mevlüt BALLI.

ID	Task_Name	Duration	Start_Date	Finish_Date	Predecessors	Resource_Names
1	In grup meetings	71 days?	Mon 04.10.04	Fri 07.01.05		Mevlüt BALLI;Çağdaş EKİNCİ[90%];Atilla ACAR;Özkan ÇELİK[90%]
2	Proposal report	17,5 days	Fri 15.10.04	Mon 08.11.04		Mevlüt BALLI[20%];Özkan ÇELİK[15%];Atilla ACAR[35%];Çağdaş EKİNCİ[30%]
3	Customer meeting	8,33 days	Fri 29.10.04	Tue 09.11.04		Atilla ACAR[60%];Mevlüt BALLI[40%]
4	Designing web page of project	63 days	Wed 20.10.04	Thu 13.01.05		Çağdaş EKİNCİ[70%];Özkan ÇELİK[10%];Atilla ACAR[10%];Mevlüt BALLI[10%]
5	Market software analysis	10 days?	Mon 11.10.04	Fri 22.10.04		Mevlüt BALLI[50%];Özkan ÇELİK[50%]
6	Analysis report	8 days	Mon 08.11.04	Thu 18.11.04	2	Özkan ÇELİK[25%];Mevlüt BALLI[25%];Atilla ACAR[25%];Çağdaş EKİNCİ[25%]
7	Initial design report	9 days	Thu 18.11.04	Thu 09.12.04	6	Özkan ÇELİK[25%];Mevlüt BALLI[25%];Atilla ACAR[25%];Çağdaş EKİNCİ[25%]
8	Final presentation	12 days	Thu 09.12.04	Fri 17.12.04	7	
9	Detailed design report	14 days	Fri 17.12.04	Thu 06.01.05	8	
10	Prototype demo	7 days?	Thu 06.01.05	Mon 17.01.05	9	

Figure 32: Gantt Chart

## **9. CONCLUSION**

Although the basic design of functions and the database are specified, there will be many additional small functions to the implementation and normalization to the database. These modifications and additions will be defined in the Detailed Design Report.