

CENG 492 PROGRESS REPORT – 1

Group Name: iTeam4

Group Members:

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Project Name: Online National Election Voting System

In this document the weekly activities done by the iTeam4 for the senior project are described and the progress of the project is stated.

Mehmet Barış Özkan

Main mission of this week was completing and preparing the user interfaces for the Election Day activities. For this aim we have prepared the following interfaces;

- Election Satiation Supervisor Log in page
- Voter Log in page
- General Election Page
- Referendum Election Page
- President Election Page

Since the system users have different educational background, all interfaces have been designed clearly and easy for use. For the selection operation radio buttons are used and in some parts of the pages usage messages are prepared for the system users. All of these pages will be shown on the weekly progress meeting.

Huseyin Lutin

In election of the Turkey there exist 151,549 ballot boxes. In our project we try to set the ONEVs in some specific region in each city or election region. In order to reduce the cost of the online voting, we have two options. One of them is INTRANET and the other one is web application (internet). However, because of the high cost of the intranet we decide to use internet; in other words we will use web application. Now I will explain the cost of the intranet mathematically;

If we use nearly 12500 election regions for the ONEVS then in order to cover all these regions we need nearly

- *** 2 million meter cable
- *** 4900 switching port lock
- *** 3000 routers

The cost of this intranet is exactly 41.5 million TL according to data given by Turk Telekom ^[1]

Emilbek Joldoshev

We have successfully integrated SVN to our development tools (Rational Software Architect, Rational Application Developer). Eclipse plugins can be added to RSA and RAD since they are the extended version of Eclipse IDE. So we have used Subversive plugin of Eclipse. There were other plugins too, but we realized that Subversive is easier to use, useful and powerful than others by reading users' opinions from blogs, discussion sites. We have downloaded necessary plugins and connectors and installed.

As a SVN Repository, we tried to get free ones. All hosts, except Google, offer restricted functionalities for free users, such as number of users or committers. We decided not pay for Repository. So, we got it from a firm where Emilbek has done a summer internship. We put project there and successfully sent to and got from new and changed versions. But this week, instructors said that SVN Repository will be provided from our Department to us. We plan to move our project to the new repository.

Emilbek showed how to use SVN to get new or specific version of project and send changed files to repository. After all, we hope we can work synchronized and develop different parts of the project in parallel thanks to SVN.

Hassan Salehe Matar

We managed to integrate the DB-2 database engine system into our machines. We then created a common database for our system called "ONEVDB" ^[2]. On the way during creation we encountered two major problems which are codebase compatibility whereby db2 on every machine adapted its log-files differently. Therefore, a small fix had to be made to run the common script to create the common Database (ONEVDB), schema (onevs) and the 17 tables of the system. The other problem was that, by default, DB2 does not allow creation of database through its location directories. We solved this problem by setting the flag to allow creation of database along the directory structure with the DB2.

In addition to creating the database in the machines, we developed a program to connect to the database through Rational Application Developer (RAD) and Rational Software Architect (RSA). RSA ^[3] and RAD ^[4] are Integrated Development Environment (IDE) ^[5] tools we are using to develop our software. We had a challenge on properly invoking the appropriate driver to load the JDBC driver. We ran the program on all our machines. This small program will act as a reference on how to connect to ONEVDB.

Inside the program to connect to ONEVDB we wrote small algorithms to insert and read data from ONEVDB. The example code can be reached through ^[6]

<http://www.ceng.metu.edu.tr/~e1591114/DB2Connect.java>

For database synchronization we will use SQL scripts for exporting and importing the latest states of the database. This means that if a group member makes changes to his database he has to export his database definition and the contents by issuing the command

“db2look -d MYDATABASE -a -e -o onevdb.sql”. Any other member who wants to update his database has to issue a command **“db2look -d MYDATABASE -a -e -i onevdb.sql”**.

Also this week we have worked for preparation of the team web site and we have completed it. It can be accessed from ^[7] www.ceng.metu.edu.tr/~e1591114 .

REFERENCES

- [1] http://intranet.turktelekom.com.tr/telekomunikas_d/index.htm
- [2] ONEVDB – Online National Election Voting System Database
- [3] <http://www.ibm.com/developerworks/rational/newto/#AboutIBMRational>
- [4] http://en.wikipedia.org/wiki/IBM_Rational_Software_Architect
- [5] http://en.wikipedia.org/wiki/Integrated_development_environment
- [6] <http://www.ceng.metu.edu.tr/~e1591114/DB2Connect.java>
- [7] www.ceng.metu.edu.tr/~e1591114