

CENG 492 PROGRESS REPORT – 5

Group Name: iTeam4

Group Members:

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Project Name: Online National Election Voting System

Toshiba

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 the week was correcting missing parts that were stated in the First Snapshot Demo by SMr. Serdar Çiftçi.

In the snapshot demo our login interfaces and other functional interfaces used by Election Station Supervisors' are better designed. However the voting page "Cumhurbaskanligi.jsp" page is not well designed and there were deficiency. These weeks has passed with fixing these faults and provide much better user friendly Election pages.

Also in election lists tables we have to design a dynamic page that takes the candidates information from database and constructs the candidates' selection table according to these information. In order to provide this dynamism we have to know JavaScript technologies and this week also we started to learn JavaScript to use in our jsp pages. ^[1]



(Figure 1 – Cumhurbaskanligi.jsp file)

Emilbek Joldoshev

We thoroughly considered the advantages and disadvantages of using Java Persistence API. JPA is a relation to object mapping tool that is available in j2ee. The main advantages are it caches the retrieved data in application server. So, when we request the same query next time, it can get it from cache. Pure jdbc does not support this. In addition to that, coding with jpa is easy, since every relation has its object representation. Programmers don't waste time by coding db queries. The main disadvantage is it is slower than jdbc. Our system is mission critical, and our system must be as faster as possible. So, we agreed to use jdbc.

One main problem is encountered this week. We wanted to create a utility class that takes query as an input and returns a result set of that query.

<svn+ssh://e1592476@external.ceng.metu.edu.tr/depo/svn/490.2010/iteam4/ONEVSWEB/src/onevs/DataBase>

Here, every time we send a query a new connection is created. We had a little research on that and found out that this is not a fast operation. We found the solution on oracle's own site. It suggests to use connection pool, a set of connections. If a query comes, it looks for a free connection from the pool. If free ones exists then it uses that else it will create new and add that to the pool before using it^[4].

we will use this method for Database optimization.

We have been developing the Database connection and handling parts of the project. We wrote the code of handling voter login. It checks if the user filled the required information. And then looks up the database if such user exists. If all of them are correct, then session is created and system redirects the user to voting page.

<svn+ssh://e1592476@external.ceng.metu.edu.tr/depo/svn/490.2010/iteam4/ONEVSWEB/src/onevs/election/Login>

<svn+ssh://e1592476@external.ceng.metu.edu.tr/depo/svn/490.2010/iteam4/ONEVSWEB/src/onevs/election/Login.jsp>

Hassan Salehe Matar

We continued with the control logic of the server side against multiple-voting of an individual and the the correct directives of the voting choices made by the votes before the voting day. That is the system now can prevent a person from voting more than once. In addition to that, If a voted was registered to vote offline and one the voting day tries to vote online the system will notify the the station supervisor during check-in before voting. On top of that if an offline voter checks-in then the system marks him as voted offline so that in case he tries to check-in in order to vote again, the system rejects.

The files we developed can be reached through the following links:

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<svn+ssh://e1591114@external.ceng.metu.edu.tr/depo/svn/490.2010/iteam4/ONEVSWEB/src/onevs/election/ElectionOptions.java>

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<svn+ssh://e1592476@external.ceng.metu.edu.tr/depo/svn/490.2010/iteam4/ONEVSWEB/src/onevs/election/OpenPoll.java>

Huseyin Lutin

This week we tried all the best to make an interview with HAVELSAN in order to get information related to the security of online national Election Voting and get an insight into the organization of voters and the votes as data entities. This is due to the fact that HAVELSAN also is running a project like ours and also since the one of the main important aspects of our Project is to provide voters with confidence about security of the system and their votes. We called them two times however they were not eager to take our request positively. They neither rejected our interest to meet them. Next week we will make an appointment with the ARGE coordinator of HAVELSAN.

This week we tried to teach our friend about the concept of servlet and database because one of our team member just last semester took File structure and he is very new about to database and servlet concepts and most of the time when we come together he is ashamed and we want to give him the responsibility but because he does not understanding the new tools and getting familiar with this new tool take more time with respect to other team members. By this way we want to also our friend take contributions to the Project. And also with this help our friend finished his database homework and we believe that in the remaining parts of the Project our member will contribute more to Project.

REFERENCES

[1] -<http://www.w3schools.com/js/>

[2] <http://www.w3schools.com/css3/default.asp>

[3] <http://www.oracle.com/technetwork/articles/javaee/jpa-137156.html>

[4] <http://java.sun.com/developer/onlineTraining/Programming/JDCBook/conpool.html#wrap>