

Project Fourth Increment Report

I. Introduction

Usually elections happen in every country after a fixed time period or in case of emergency such as the elected leader has died or if he/she is assassinated. When the elections are nearby and during the elections the government spends a lot of money to conduct the elections. Lot of public money is spent to ensure that the elections happen fairly and the mode of conducting elections usually involves people going to nearby polling booth to cast their vote. For all of this to happen the government installs a lot of infrastructure and needs to give tight security to people and elections infrastructure so that no one can tamper with it, which in turn requires lot of money. This also requires many people to be deployed simultaneously at all polling booths for security so planning and coordination plays an important role here. Sometimes it becomes difficult or almost impossible for people living away from their hometown to travel back to their hometown and cast their vote, this may result in significant number of people not participating in Elections. Moreover most people don't know who are the people contesting in their constituency and even if they know they do not have complete information about them such as their educational qualifications, previous work experience, any criminal record etc. which is essentially required for people to assess every person who is contesting and finally elect the right person of their choice. And for people to come and vote at a polling booth a holiday needs to be declared which in turn requires all the organizations to shut down their services on the day of Elections, all this process ensures that a leader is elected but it involves the time and effort of a lot of people and organizations. As we know that every moment in our life is unpredictable and if due to some reason on the day of elections something goes wrong the whole process needs to be repeated which again requires a lot of time, money and effort. Also the entire process requires a lot of planning and coordination between many departments within the government at center and state. In spite of planning well sometimes we may fail in coordination and getting the work done as planned. In today's dynamic world where technology is driving us there is a need for using technology to replace such a process of conducting elections with a new process which can overcome the problems discussed above.

II. Objectives

The goal of our project is to develop an online voting system where people can cast their vote online to elect their leader. By conducting elections online we do not have to install any physical infrastructure such as polling booths and we do not have to deploy any security personnel to monitor the situation at every polling booth, this saves a lot of public money and it also avoids any security to be deployed which in turn saves time and effort of lot of people which in turn can be used for other productive purposes. As everything is online where people just need to vote through their smart devices people don't have to visit a polling booth and people who are staying away from their hometown due to different reasons can also participate in the Elections from where ever they are, in this way our application gives opportunity for everyone to participate in the Elections and makes their vote count and create a difference in electing the right person. Our idea involves money to be spent only on developing a scalable, secure and robust application which would be very less when compared to money being spent on conducting Elections in traditional way. Our application consolidates and provides complete information about every person who is contesting which in turn helps people to assess and elect the right person of their choice and it also ensures that there is no rigging and only the genuine registered voters are casting

their vote. Unlike traditional way of conducting Elections where we need many teams from different departments to coordinate we only require one team during Elections which monitors and ensures that the system which is running our online application is up and running. All this process does not require much coordination and man power. So essentially the voting system that is developed through our project saves time, money, effort and infrastructure that could be used for other productive purposes and also eases the entire process of conducting elections.

III. Features

We have developed the following features for your project:

1. Developed all the user interfaces required for the project and improved the styling using CSS.
2. Written validations code for all the entered in user interface forms and the data that is being passed to the database.
3. Created the required database tables required for the project.
4. Implemented voter registration and candidate registration functionality.
5. Inserted the registration data in to database tables.
6. Implemented the login functionality.
7. Implemented the password recovery functionality.
8. Implemented the password encryption and decryption functionality.
9. Read data from database and display it.
10. Implemented the display candidates feature.
11. Implemented the voting functionality for the candidates.
12. Implemented the voting disable feature once voted.

IV. Existing Services/API

Did not use any APIs or existing services for Increment4

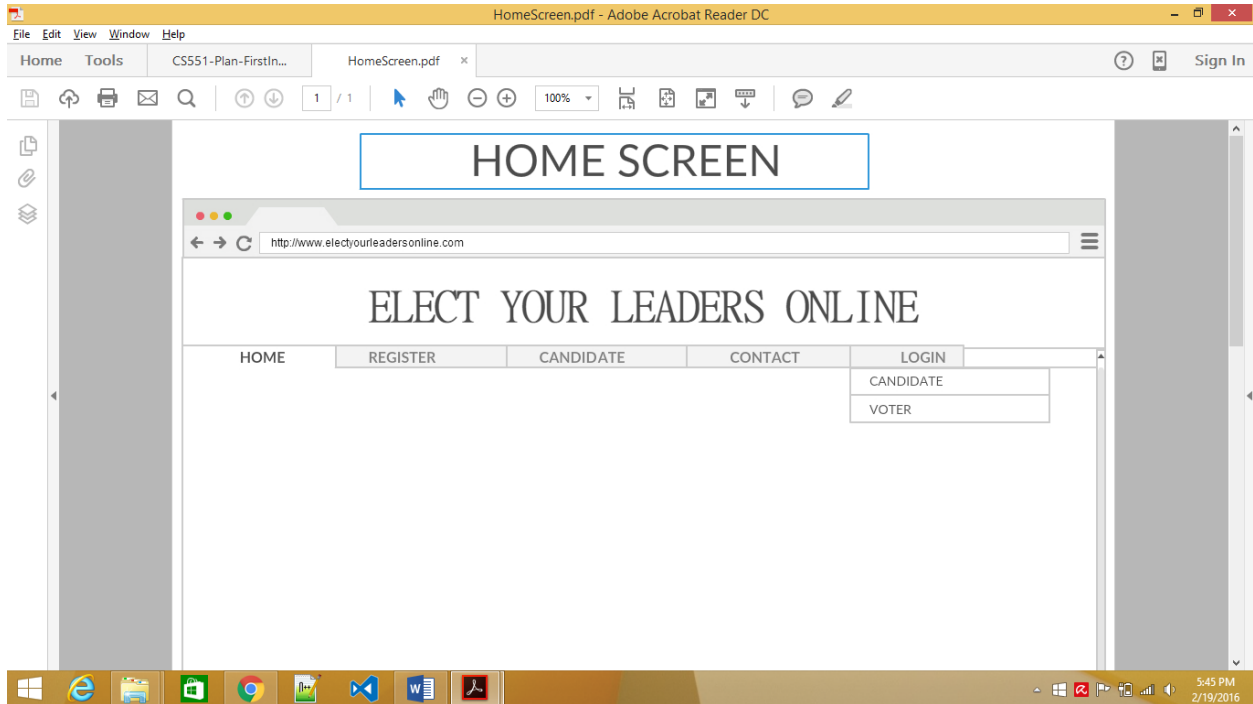
V. Detail Design of Features (using tools)

All the wireframes, class diagrams, sequence diagrams developed in Increment4 are at below link

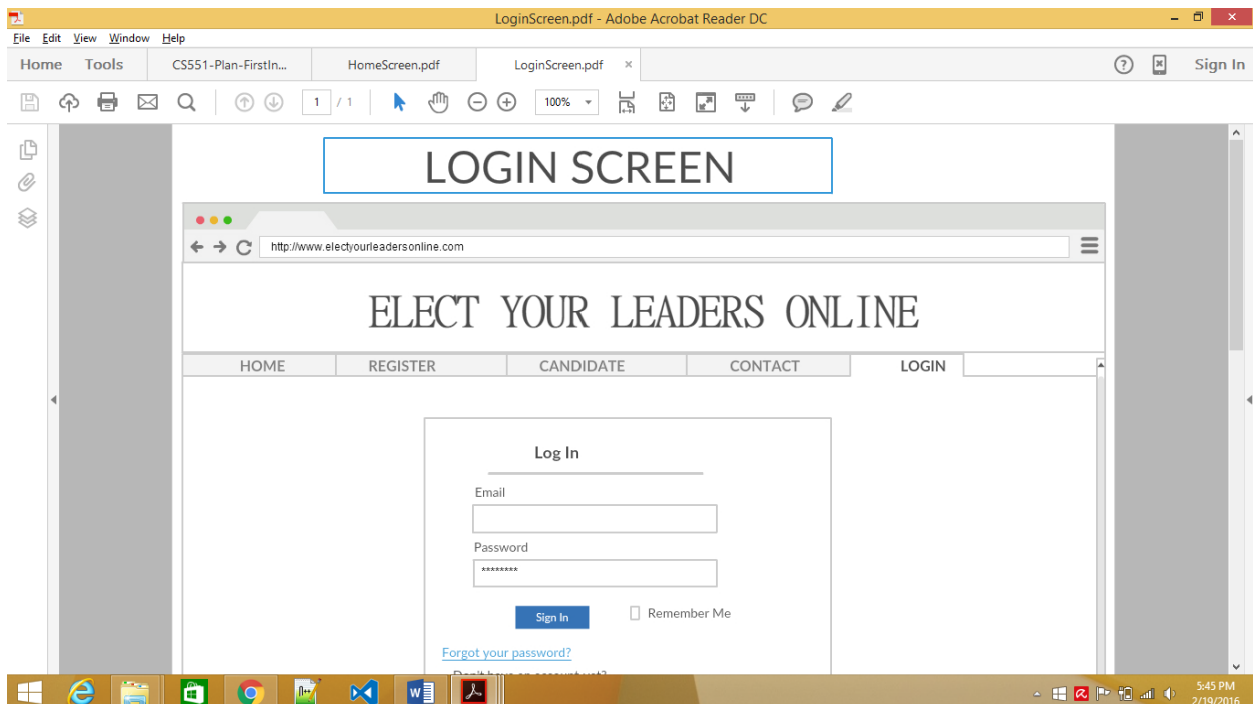
https://github.com/gkswargam/ASE_Project_Team9/tree/master/Increment4/Documentation/Project_Wireframes

Below are the wireframe screenshots for user interfaces that we have developed:

Home Screen



Login Screen



Voter Registration Screen

VoterRegistrationScreen.pdf - Adobe Acrobat Reader DC

File Edit View Window Help

Home Tools CS551-Plan-FirstIn... HomeScreen.pdf LoginScreen.pdf VoterRegistrationSc... x Sign In

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VOTER
REGISTRATION SCREEN

http://www.electyourleadersonline.com

ELECT YOUR LEADERS ONLINE

VOTER REGISTRATION

First Name

Last Name

UID

Date of Birth

Political Affiliation

City

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Candidate Registration Screen

CandidateRegistrationScreen.pdf - Adobe Acrobat Reader DC

File Edit View Window Help

Home Tools CS551-Plan-FirstIn... CandidateRegistrati... x Sign In

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CANDIDATE
REGISTRATION SCREEN

http://www.electyourleadersonline.com

ELECT YOUR LEADERS ONLINE

CANDIDATE REGISTRATION

First Name

Last Name

UID

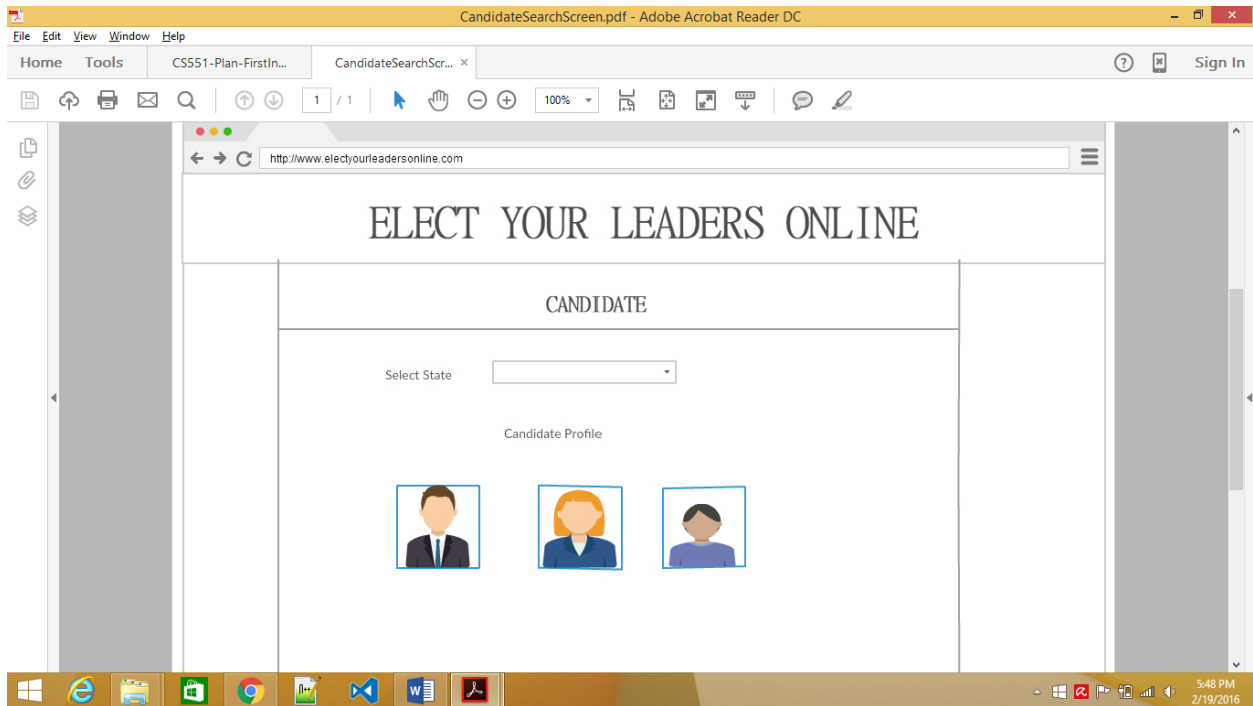
Date of Birth

Political Affiliation

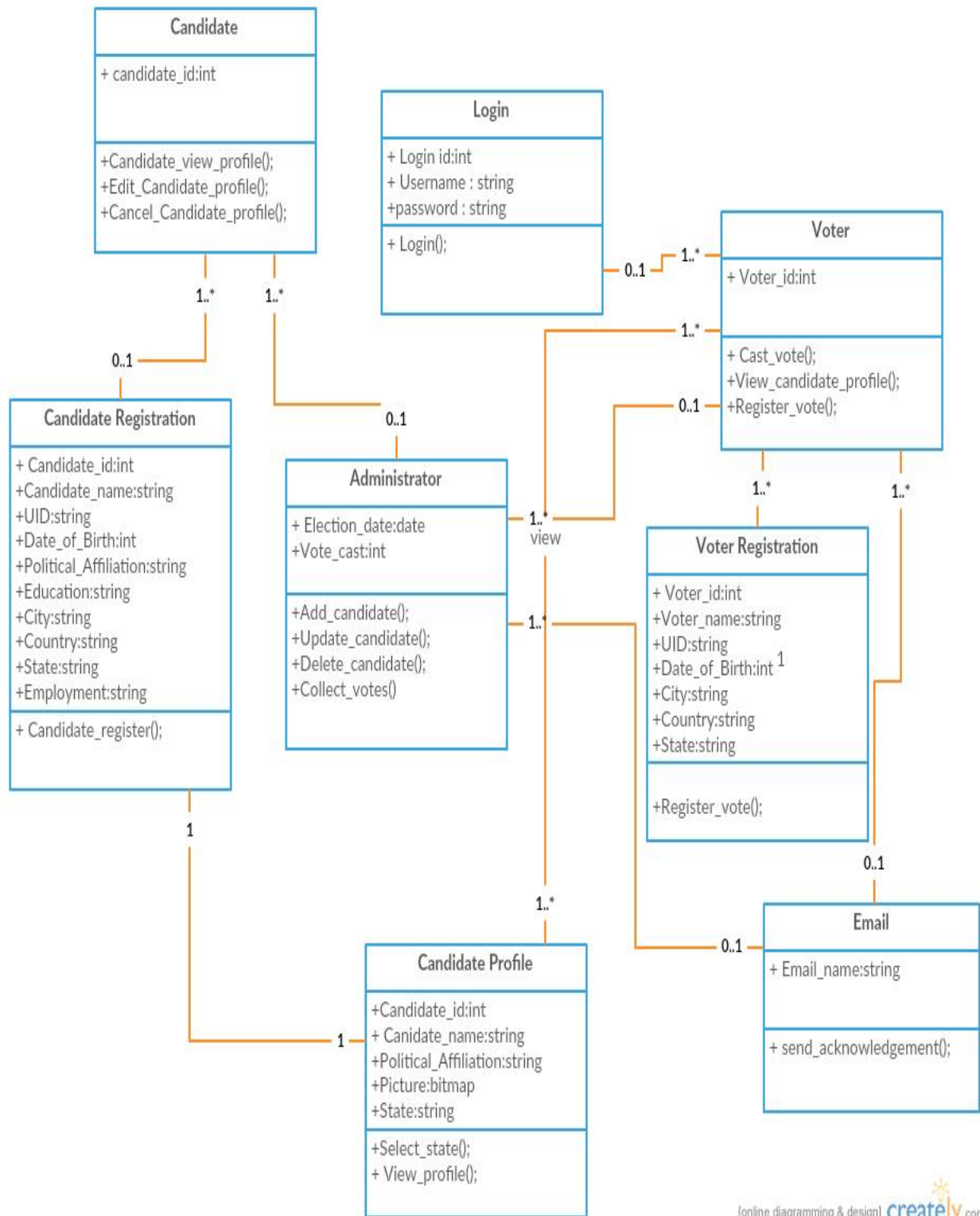
City

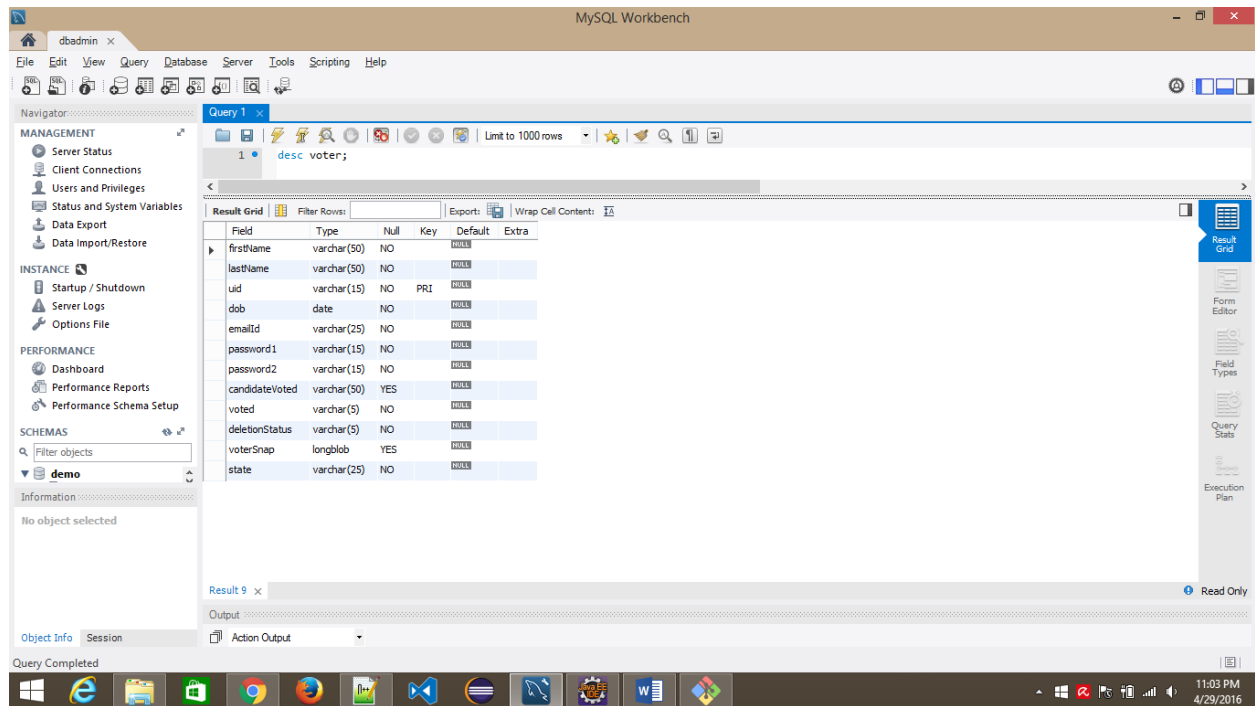
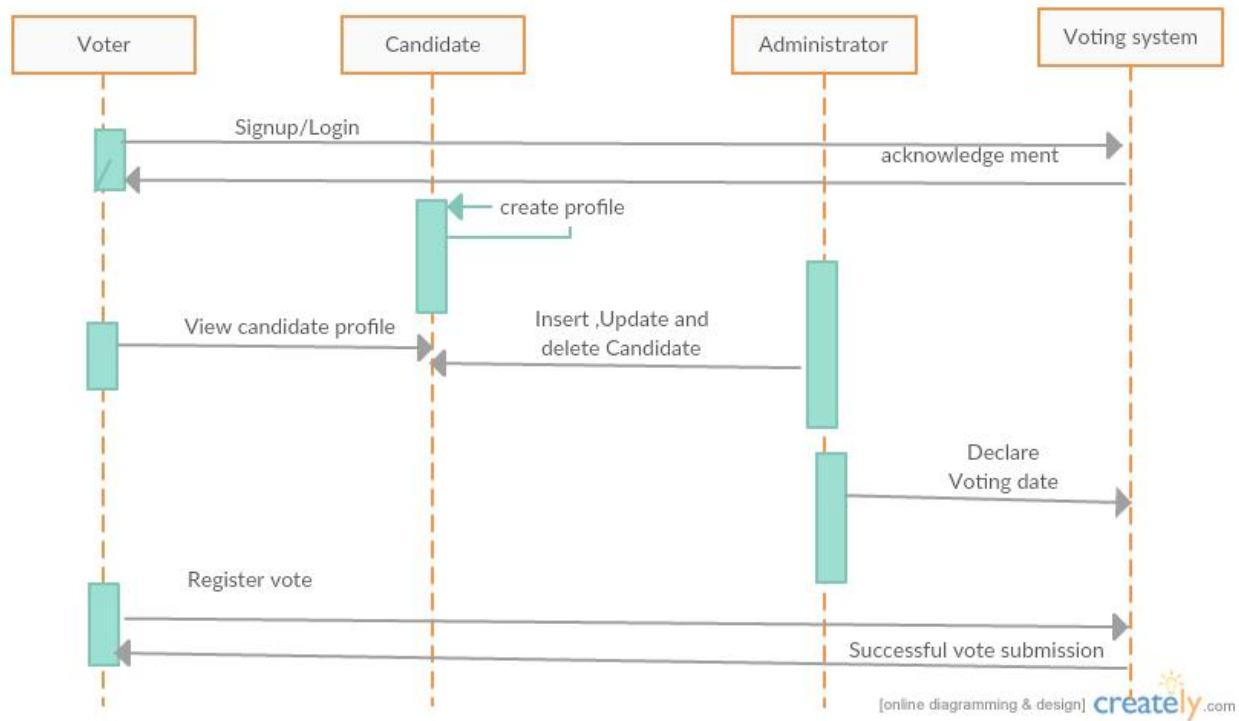
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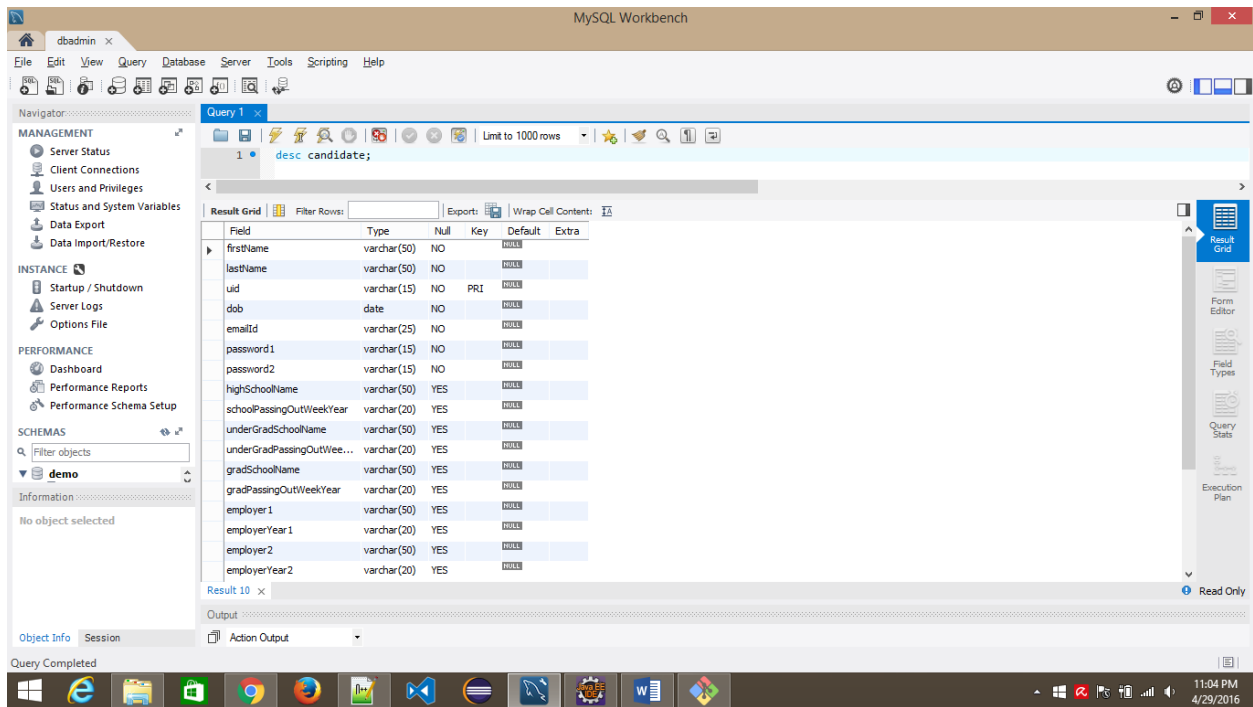
Candidate Search Screen



Below are class diagrams, sequence diagrams and database descriptions:







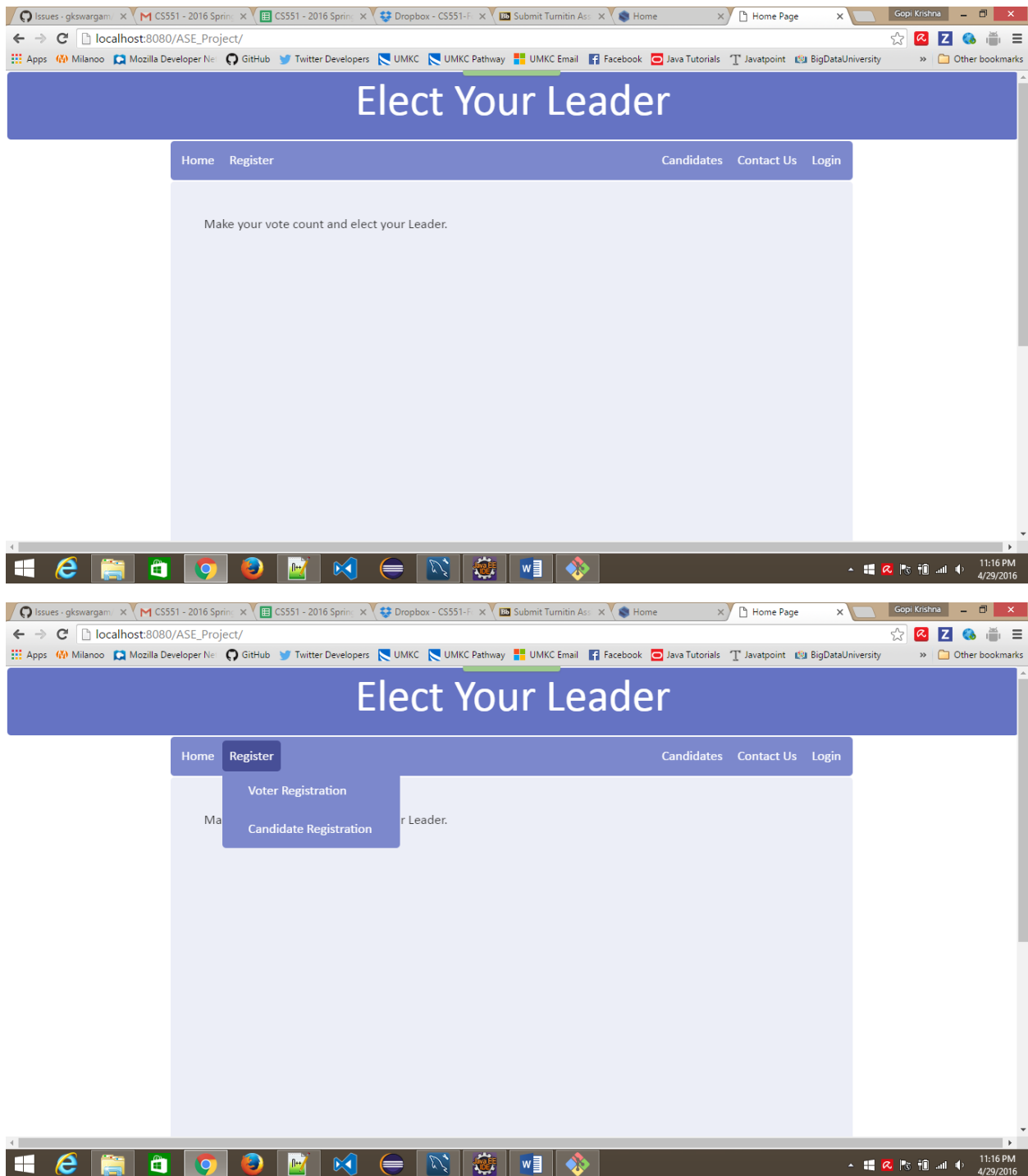
VI. Testing

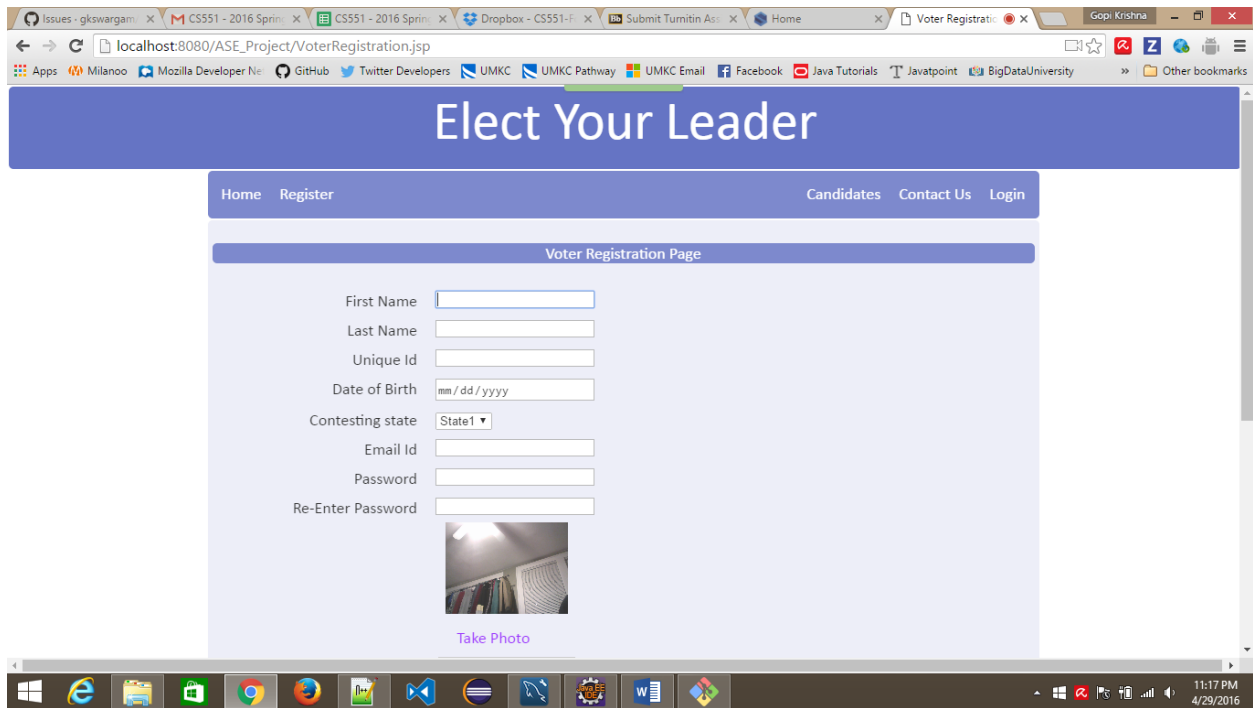
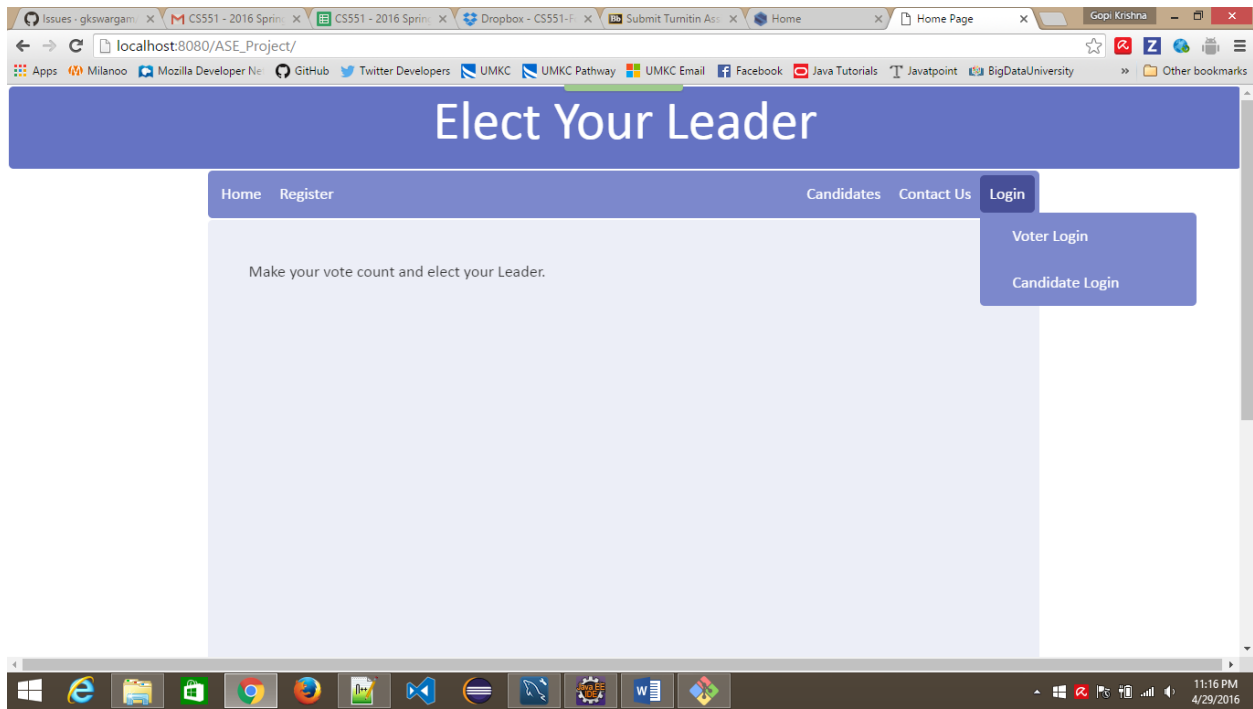
All the user interfaces, validations, database connections, data insertions, login functionality, password recovery functionality, voting functionality, reading data and database tables are tested by deploying them to tomcat server through Eclipse IDE. Complete code after Increment4 is available at below link in GitHub:

https://github.com/gkswargam/ASE_Project_Team9/tree/master/Increment4/Source

Below are the screenshots for testing through Eclipse IDE and MYSQL:

User Interfaces:





Issues - gkswargam X CS551 - 2016 Sprin X CS551 - 2016 Sprin X Dropbox - CS551-F X Submit Turnitin As X Home X Candidate Regi X Gopi Krishna

localhost:8080/ASE_Project/CandidateRegistration.jsp

Apps Milano Mozilla Developer Ne GitHub Twitter Developers UMKC UMKC Pathway UMKC Email Facebook Java Tutorials Javatpoint BigDataUniversity Other bookmarks

Elect Your Leader

Home Register Candidates Contact Us Login

Candidate Registration Page

First Name

Last Name

Unique Id

Date of Birth

Contesting state

Contesting state

Email Id

Password

Re-Enter Password

Education Details

High School	<input type="text" value="High School name"/>	<input type="text" value="Week --, ----"/>
Under Graduation	<input type="text" value="UnderGrad School name"/>	<input type="text" value="Week --, ----"/>
Graduation	<input type="text" value="Grad School name"/>	<input type="text" value="Week --, ----"/>

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Issues - gkswargam X CS551 - 2016 Sprin X CS551 - 2016 Sprin X Dropbox - CS551-F X Submit Turnitin As X Home X Voter Login Page X Gopi Krishna

localhost:8080/ASE_Project/VoterLogin.jsp

Apps Milano Mozilla Developer Ne GitHub Twitter Developers UMKC UMKC Pathway UMKC Email Facebook Java Tutorials Javatpoint BigDataUniversity Other bookmarks

Elect Your Leader

Home Register Candidates Contact Us Login

Voter Login

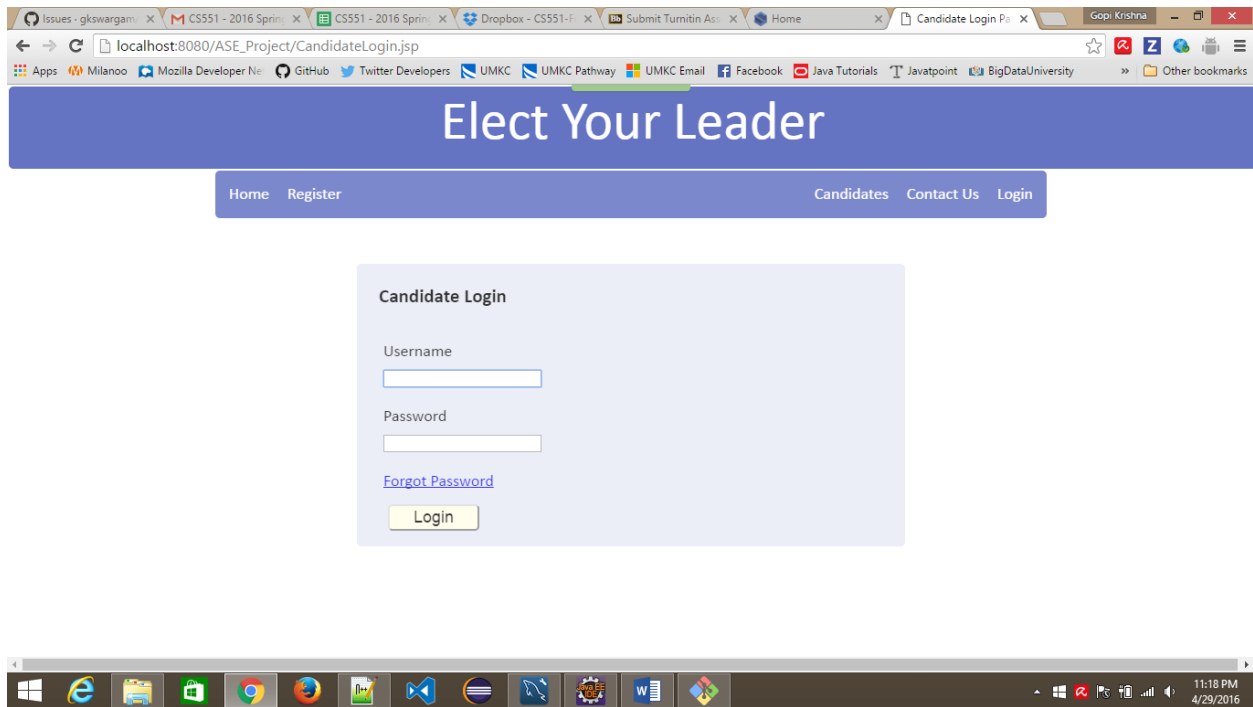
Username

Password

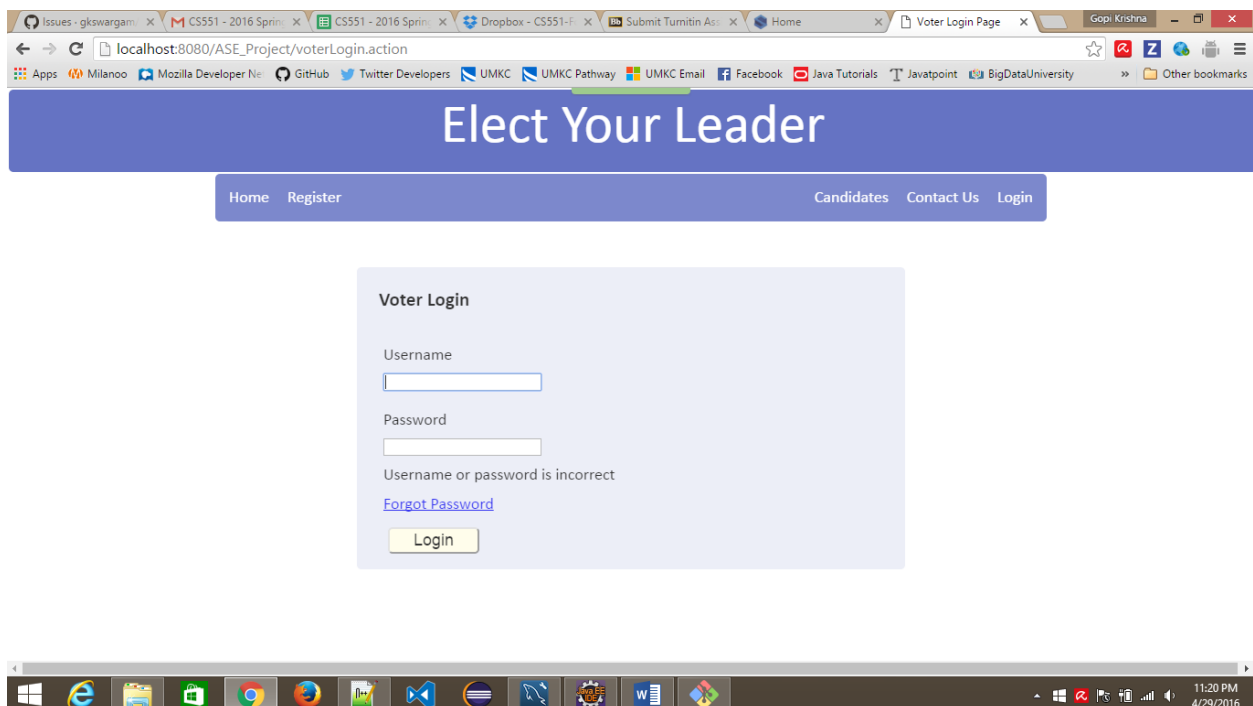
[Forgot Password](#)

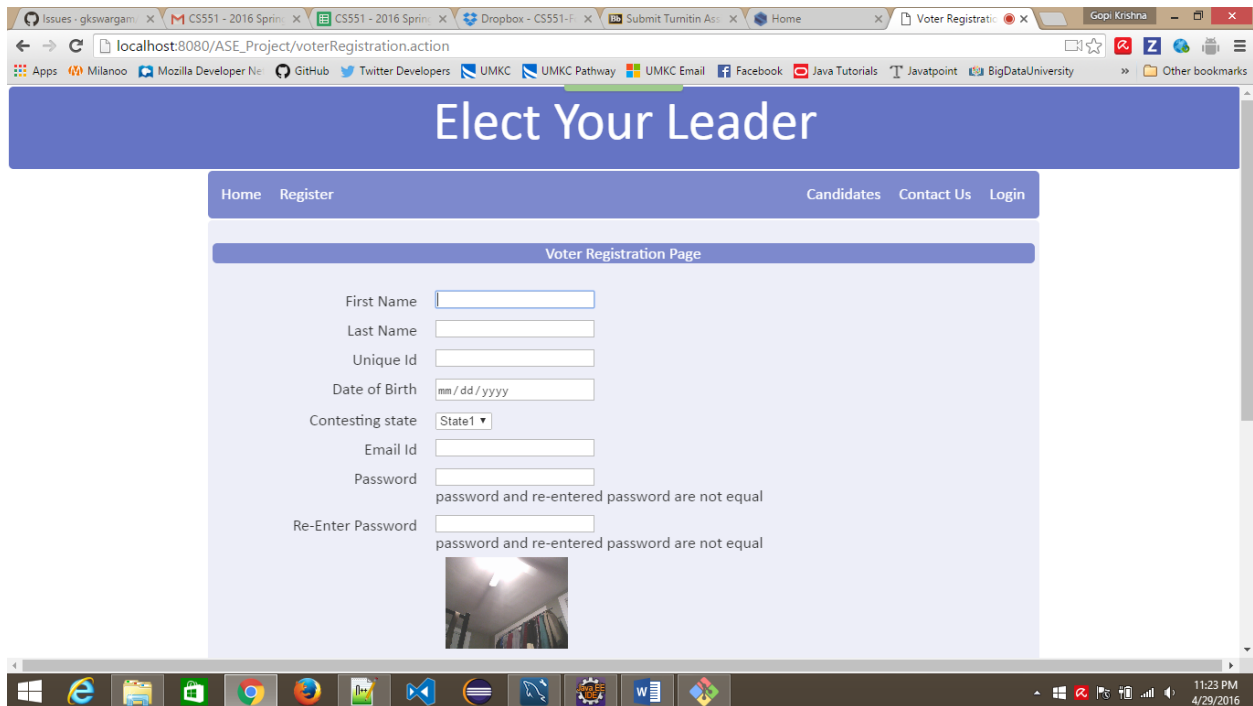
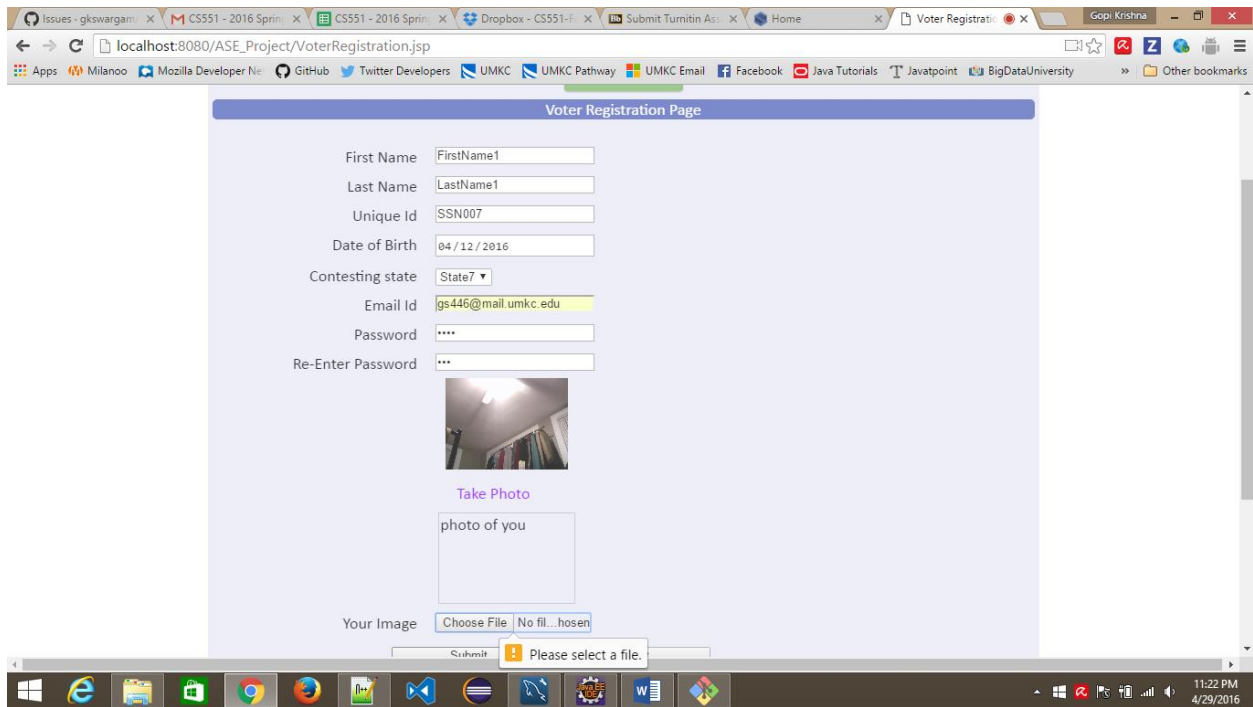
Login

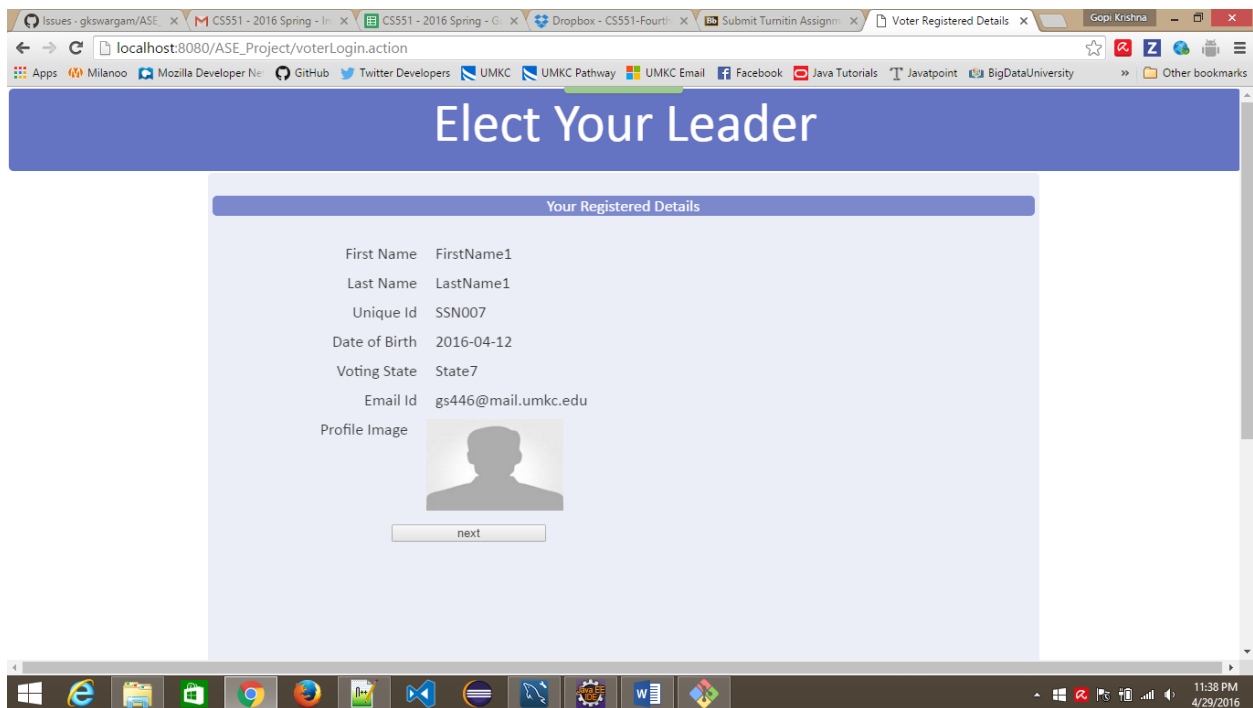
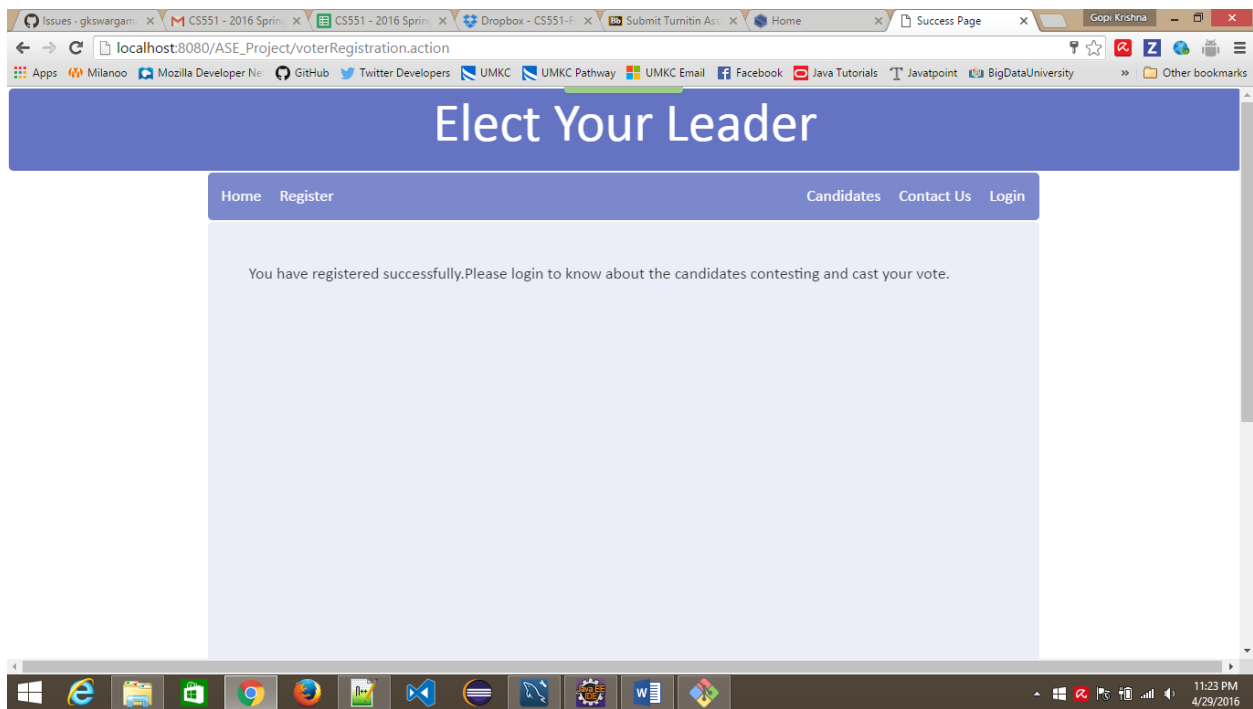
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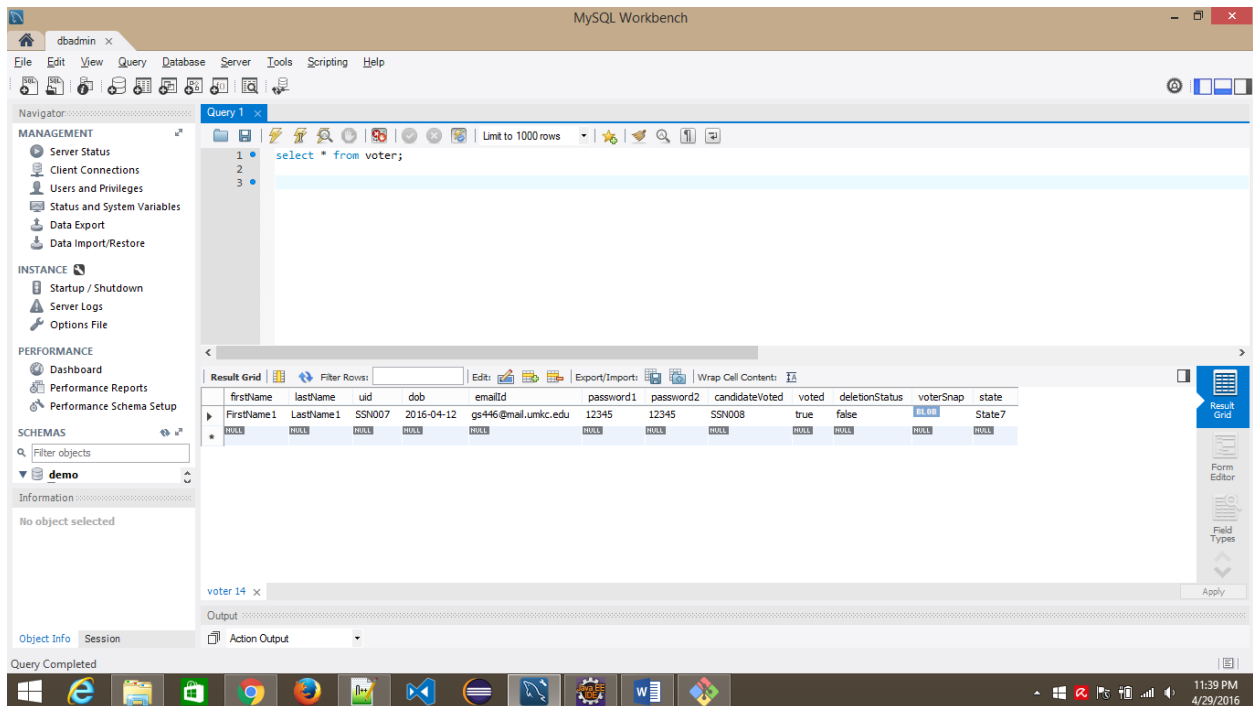
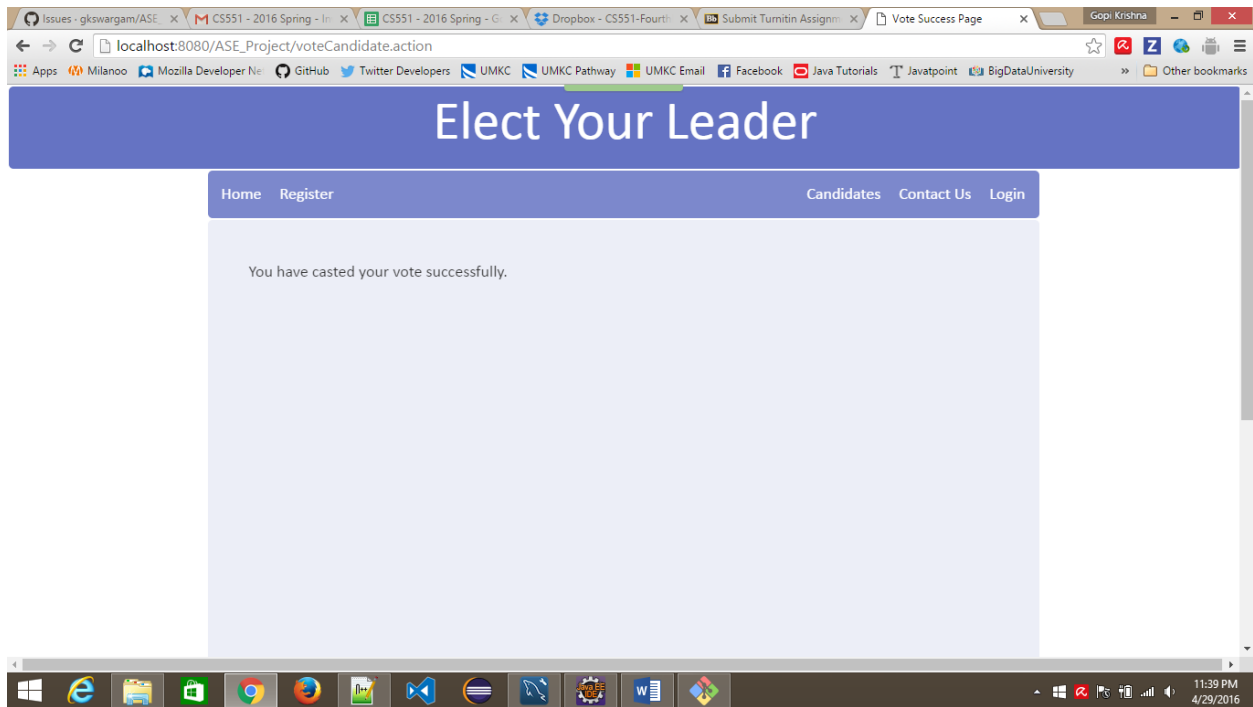
Validations, Data insertions, reading data, voting functionality:











MySQL Workbench

dbadmin x

File Edit View Query Database Server Tools Scripting Help

Navigator: Query 1 x

1 select * from candidate;

Limit to 1000 rows

MANAGEMENT

- Server Status
- Client Connections
- Users and Privileges
- Status and System Variables
- Data Export
- Data Import/Restore

INSTANCE

- Startup / Shutdown
- Server Logs
- Options File

PERFORMANCE

- Dashboard
- Performance Reports
- Performance Schema Setup

SCHEMAS

Filter objects

demo

Information

No object selected

Result Grid

firstName	lastName	uid	dob	emailId	password1	password2	highSchoolName	schoolPassingOutWeekYear	underGradSchoolName	underGradPassingOutWeekYear
First Name 1	Last Name 1	SSN007	2016-04-13	gs446@mail.umkc.edu	123456	123456	SSK		KLCE	
First Name 5	Last Name 5	SSN0077	2016-04-06	gopikswargam@yahoo.in	123456	123456	SSK4		KLCE4	
First Name 2	Last Name 2	SSN0078	2016-04-20	gopikswargam@gmail.com	12345	12345	SSK1		KLCE1	
First Name 3	Last Name 3	SSN008	2016-04-20	gkswargam2237@gmail.com	1234	1234	SSK2		KLCE2	
First Name 4	Last Name 4	SSN009	2016-04-19	gkswarga@yahoo.co.in	12345	12345	SSK3		KLCE3	
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

candidate 15 x

Output

Action Output

Query Completed

Issues - gkswargam x CS551 - 2016 Spring x CS551 - 2016 Spring x Dropbox - CS551-F x Submit Turnitin As x Home x Candidate List Page x Gopi Krishna

localhost:8080/ASE_Project/candidateSearch.action

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Elect Your Leader

Home Register Candidates Contact Us Login

Know the candidates contesting

Select the state

First Name: FirstName1
Last Name: LastName1
UID: SSN007
Party: Party1

First Name: FirstName5
Last Name: LastName5
UID: SSN0077
Party: Party1

VII. Implementation

All the user interfaces are developed using html, css and java script.

Photo snap feature is developed using JavaScript.

Validations have been checked through html and Java language

Database tables are created using MYSQL.

Data insertions, reading data, login functionality and password recovery functionality are implemented using Java.

VIII. Deployment

All the features developed are working as expected, have been tested by deploying to Tomcat server through Eclipse.

All the artifacts for Increment4 are at below link

https://github.com/gkswargam/ASE_Project_Team9/tree/master/Increment4

IX. Project Management

Work Completed

Description

In Increment4 we have completed the below

- Developed all the user interfaces required for the project and improved the styling using CSS.
- Written validations code for all the entered in user interface forms and the data that is being passed to the database.
- Created the required database tables required for the project.
- Implemented voter registration and candidate registration functionality.
- Inserted the registration data in to database tables.
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- Implemented the password recovery functionality.
- Implemented the password encryption and decryption functionality.
- Read data from database and display it.
- Implemented the display candidates feature.
- Implemented the voting functionality for the candidates.
- Implemented the voting disable feature once voted.

- **Responsibility**

- (1) Load candidate details
- (2) Voting enable and disable feature
- (3) Candidate Search
- (4) Voting functionality

Alsofyani,Mohannad Eida M
JyothiKiran Nandanamudi
Sidrah Junaid
Gopi Krishna Swargam

- **Time taken**

225 hours

- **Contributions**

(1) Gopi Krishna Swargam	25%
(2) Nandanamudi Jyothikiran	25%
(3) Sidrah Junaid	25%
(4) Alsofyani,Mohannad Eida M	25%

Bibliography

<http://www.codejava.net/>

<https://struts.apache.org/docs/home.html>