

Project Second 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. Project Goal and 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.
2. Written validations code for all the data that is being passed to the database.
3. Created the database tables required for the project.

IV. Existing Services/API

Did not use any APIs or existing services for Increment2

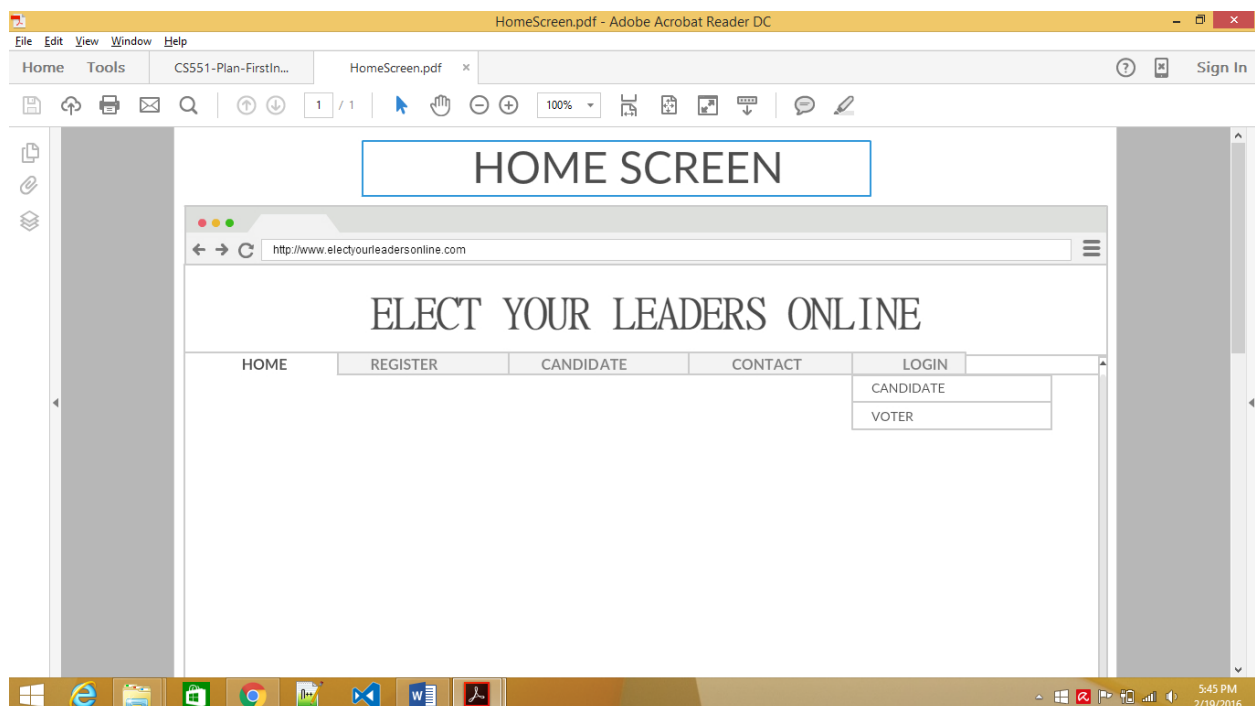
V. Detail Design of Features (using tools)

All the wireframes, class diagrams, sequence diagrams developed in Increment2 are at below link

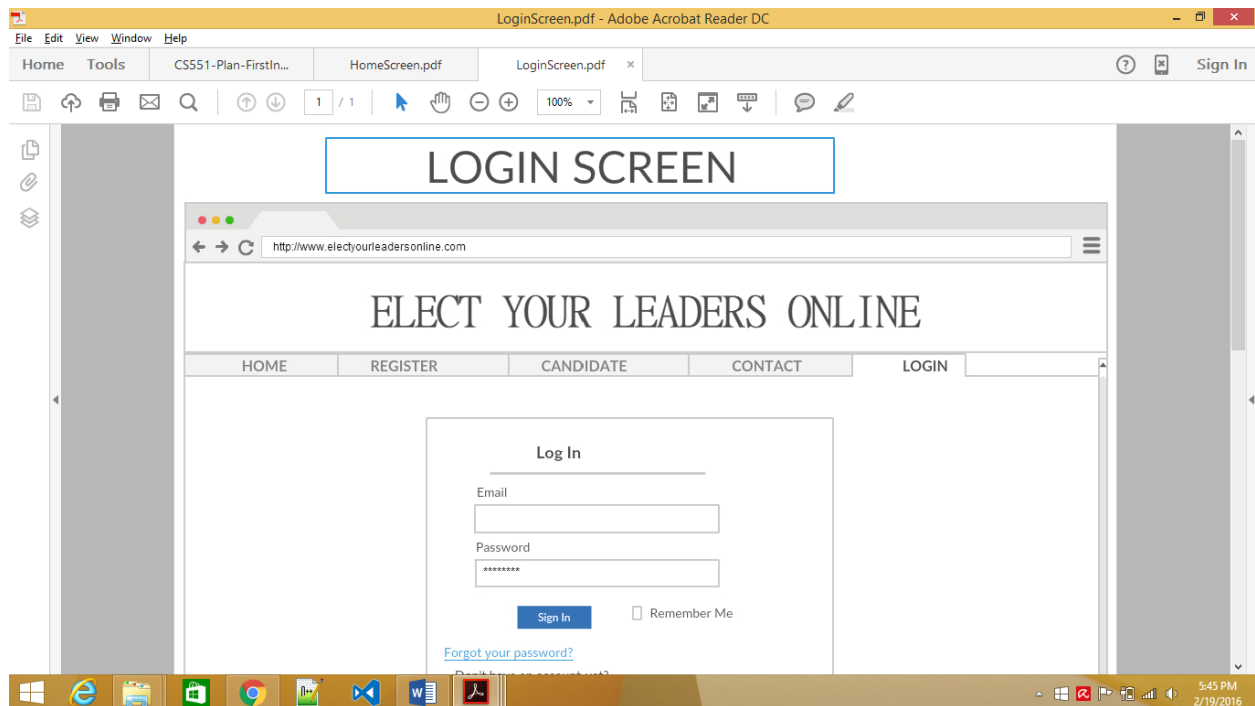
https://github.com/gkswargam/ASE_Project_Team9/tree/master/Increment2/Documentation/Project_Wireframes

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

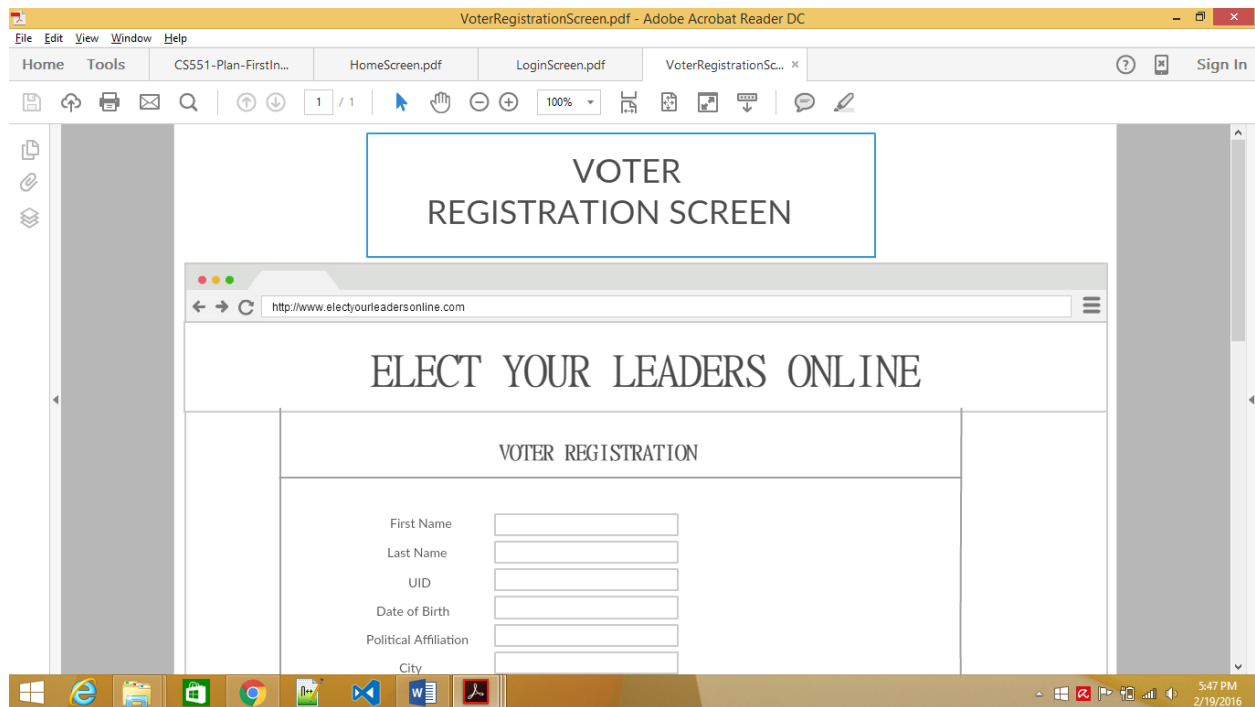
Home Screen



Login Screen



Voter Registration Screen



Candidate Registration Screen

CandidateRegistrationScreen.pdf - Adobe Acrobat Reader DC

File Edit View Window Help

Home Tools CSS51-Plan-FirstIn... CandidateRegistrati... x Sign In

1 / 1 100%

CANDIDATE
REGISTRATION SCREEN

http://www.electyourleadersonline.com

ELECT YOUR LEADERS ONLINE

CANDIDATE REGISTRATION

First Name

Last Name

UID

Date of Birth

Political Affiliation

City

5:47 PM 2/19/2016

Candidate Search Screen

CandidateSearchScreen.pdf - Adobe Acrobat Reader DC

File Edit View Window Help

Home Tools CSS51-Plan-FirstIn... CandidateSearchScr... x Sign In

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http://www.electyourleadersonline.com

ELECT YOUR LEADERS ONLINE

CANDIDATE

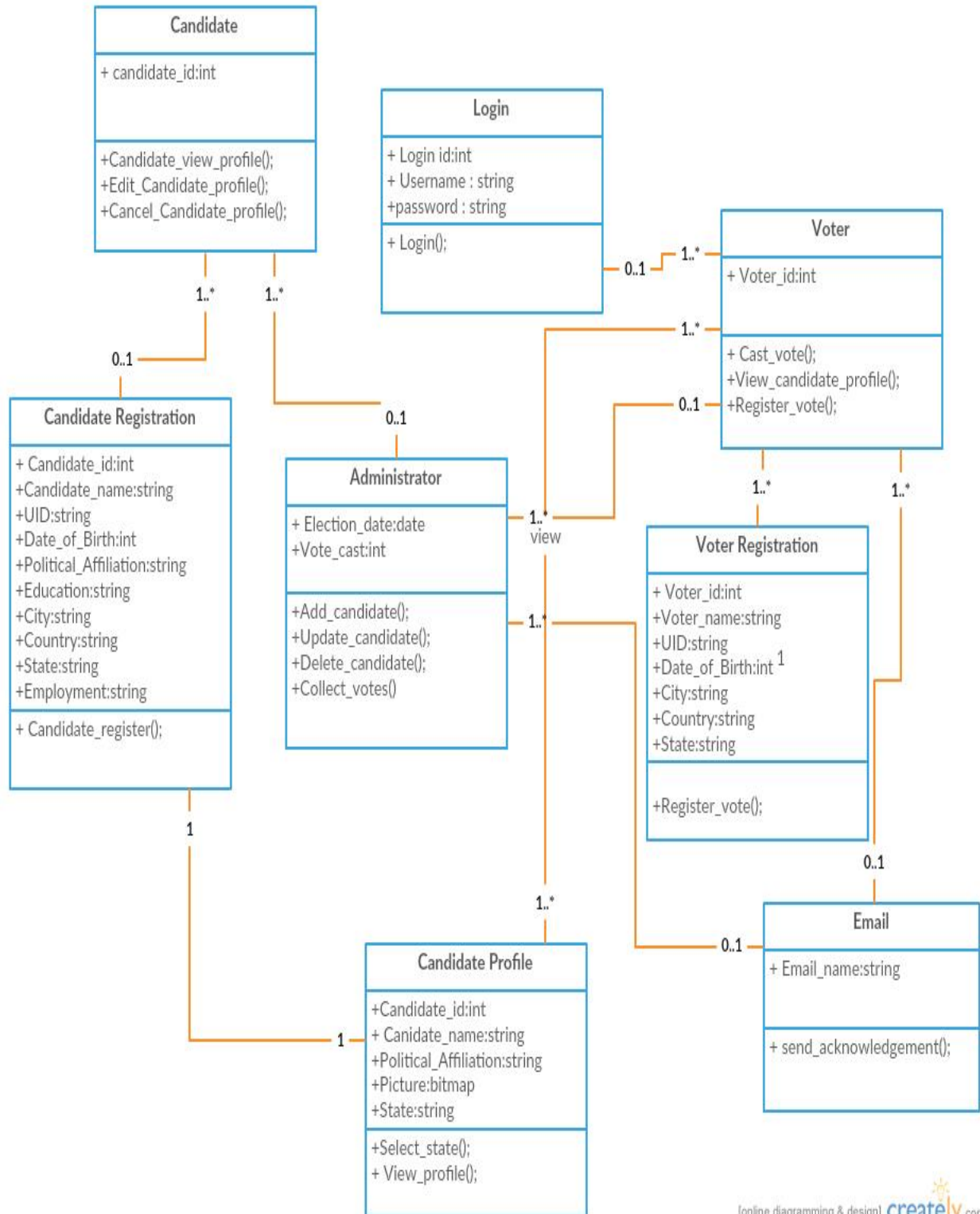
Select State

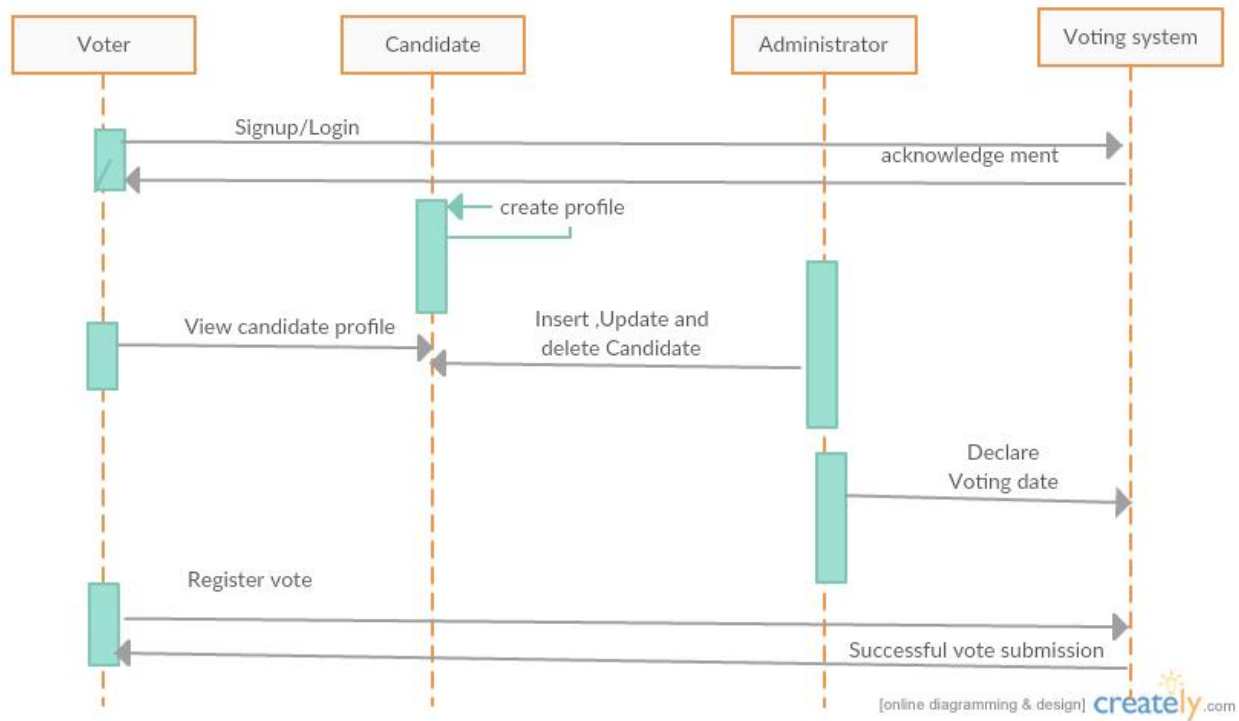
Candidate Profile

5:48 PM 2/19/2016

Below are class diagrams, sequence diagrams and database descriptions:





```

MySQL 5.7 Command Line Client - Unicode
Enter password: *****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 9
Server version: 5.7.11-log MySQL Community Server (GPL)

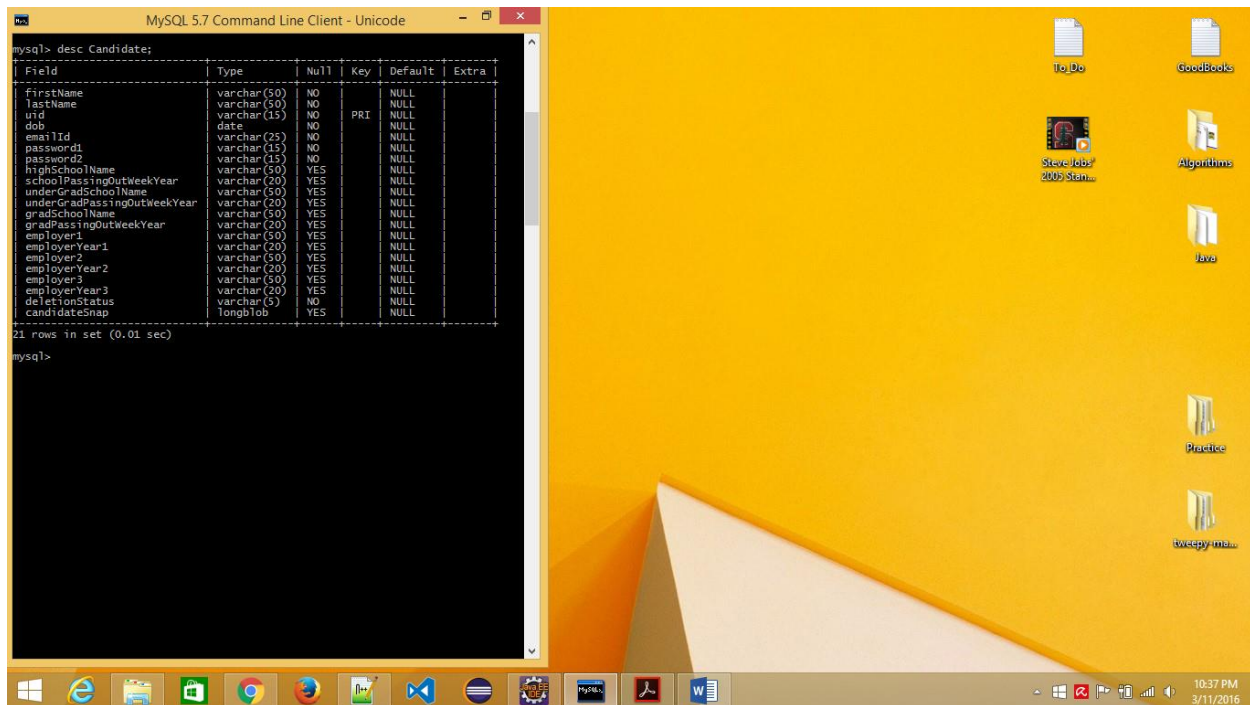
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Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use mysql;
Database changed
mysql> desc Voter;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| firstName | varchar(50) | NO |  | NULL |  |
| lastName | varchar(50) | NO |  | NULL |  |
| uid | varchar(15) | NO | PRI | NULL |  |
| dob | date | NO |  | NULL |  |
| emailId | varchar(25) | NO |  | NULL |  |
| password1 | varchar(15) | NO |  | NULL |  |
| password2 | varchar(15) | NO |  | NULL |  |
| candidateVoted | varchar(50) | YES |  | NULL |  |
| voted | varchar(5) | NO |  | NULL |  |
| deletionStatus | varchar(5) | NO |  | NULL |  |
| voterSnap | longblob | YES |  | NULL |  |
+-----+-----+-----+-----+-----+-----+
11 rows in set (0.02 sec)

mysql>
  
```



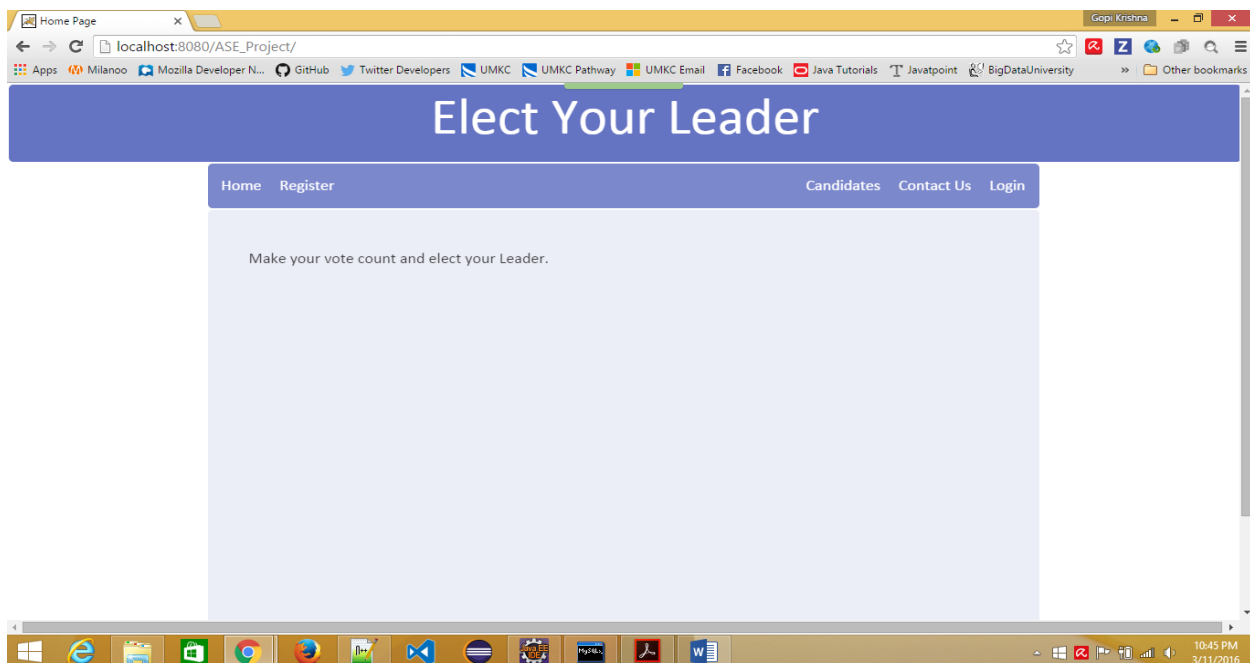
VI. Testing

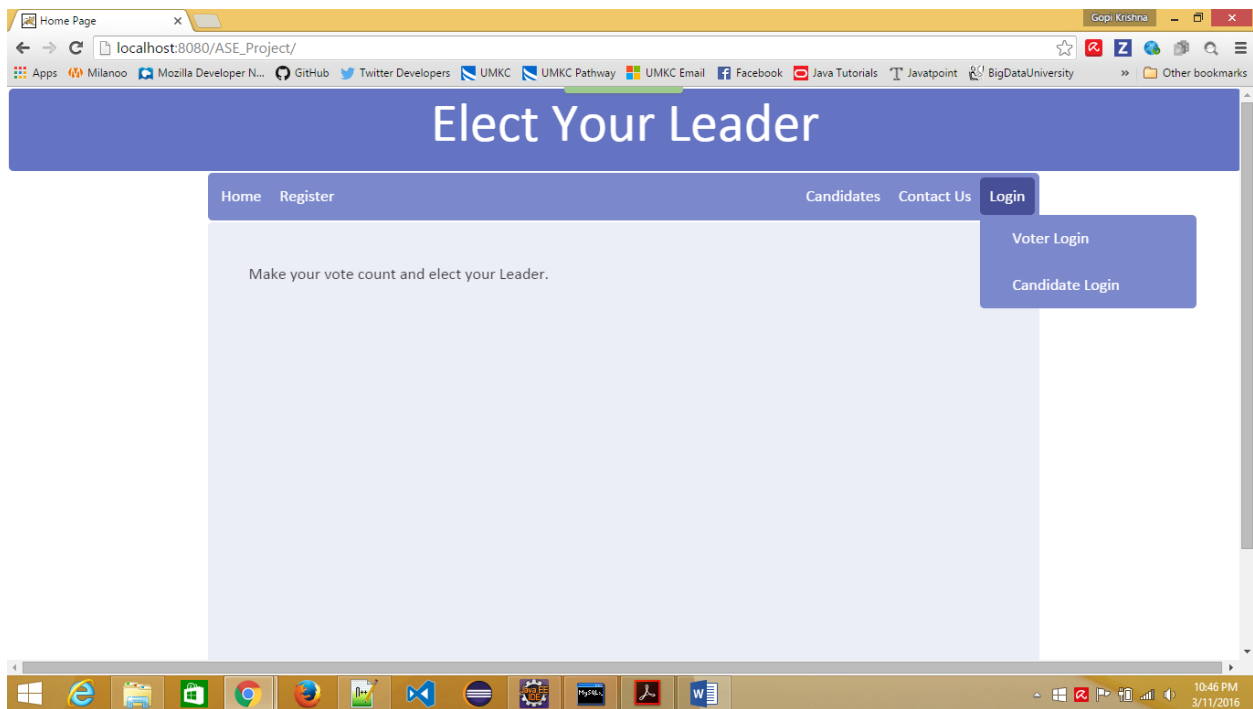
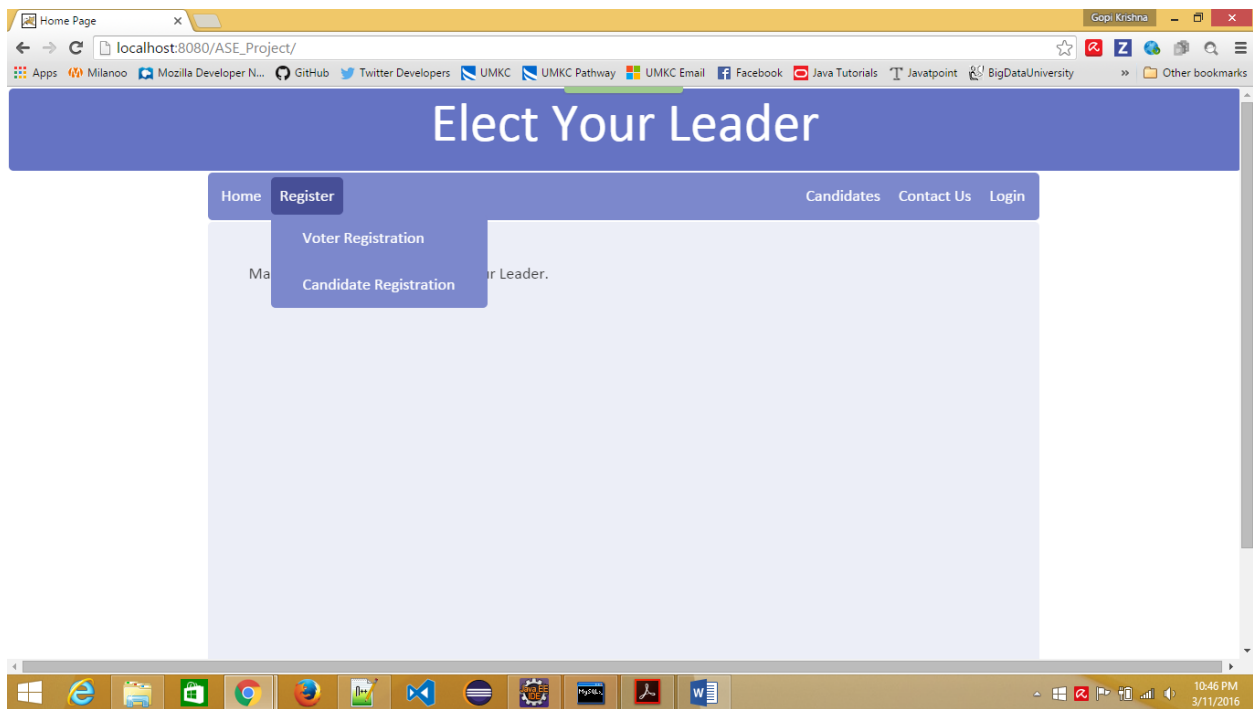
All the user interfaces, validations and database connection are tested by deploying them to tomcat server through Eclipse IDE. Complete code after Increment2 is available at below link in GitHub:

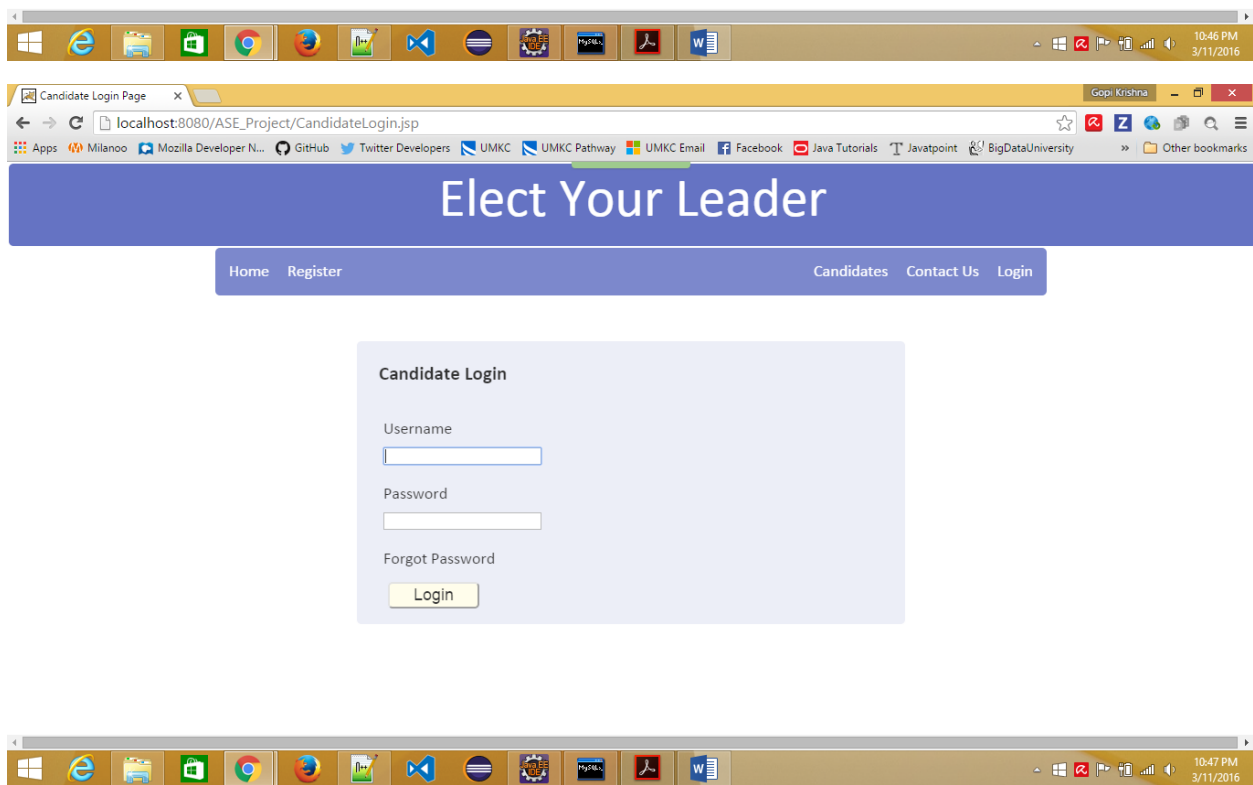
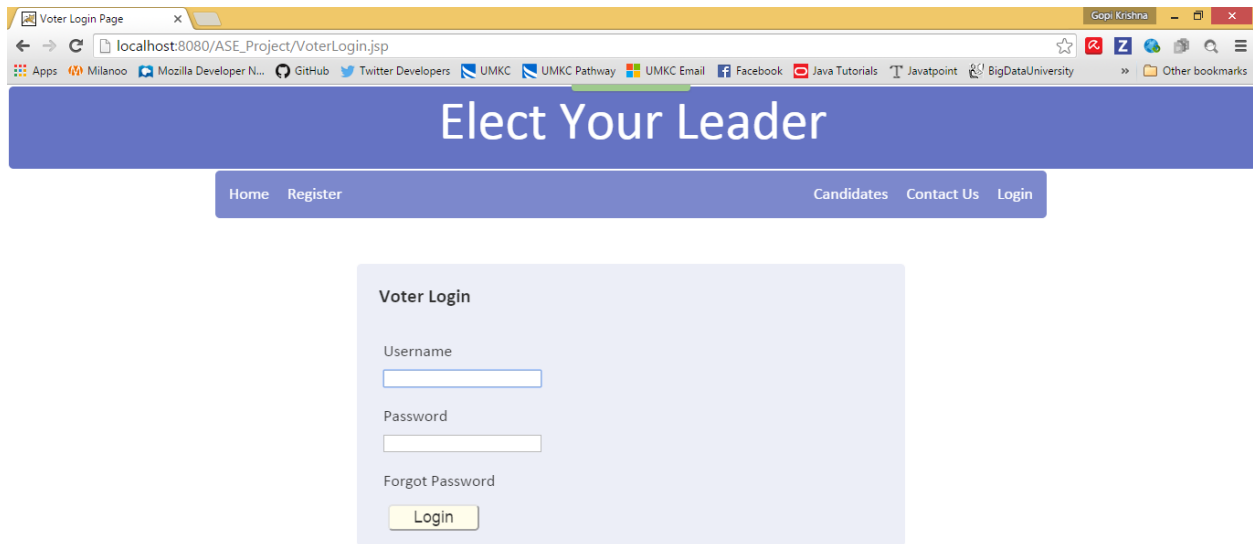
https://github.com/gkswargam/ASE_Project_Team9/tree/master/Increment2/Source

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

User Interfaces:







Voter Registration Page

localhost:8080/ASE_Project/VoterRegistration.jsp

Apps Milano Mozilla Developer N... 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 Registration Page

First Name

Last Name

Unique Id

Date of Birth

Email Id

Password

Re-Enter Password

Windows Taskbar: 10:47 PM 3/11/2016

Candidate Registration Page

localhost:8080/ASE_Project/CandidateRegistration.jsp

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

Home Register Candidates Contact Us Login

Candidate Registration Page

First Name

Last Name

Unique Id

Date of Birth

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 --, ----"/>

Employment Details

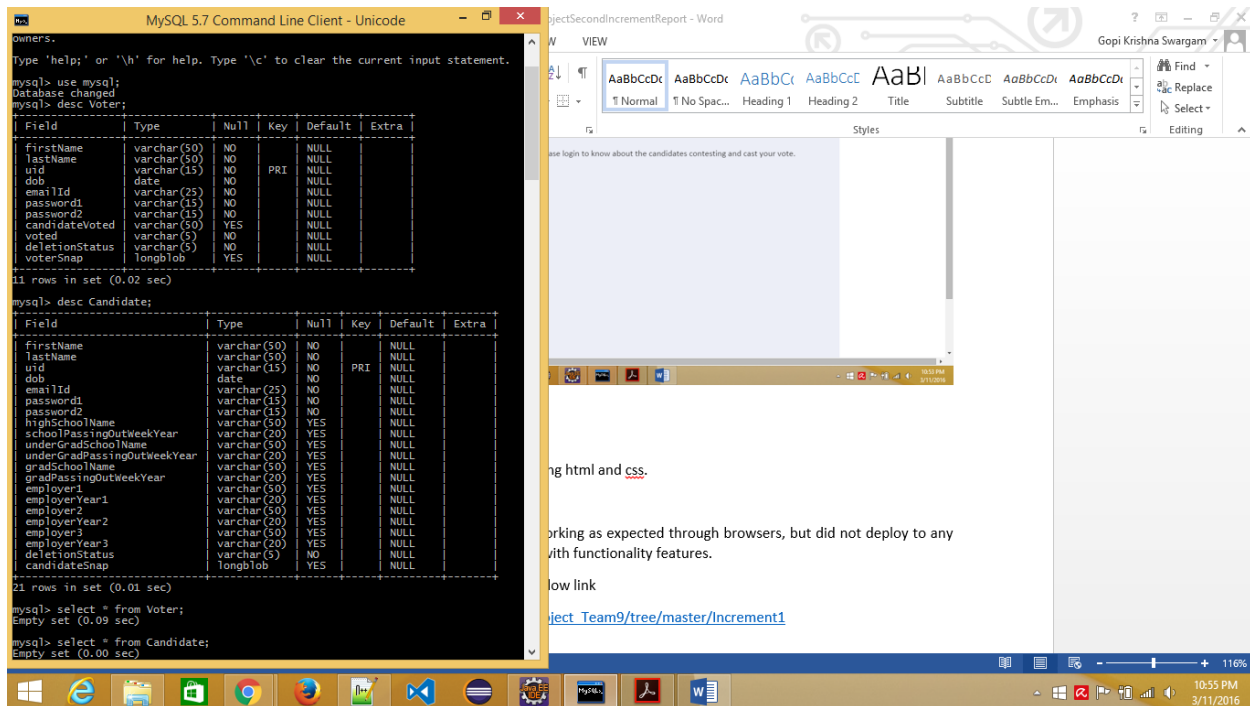
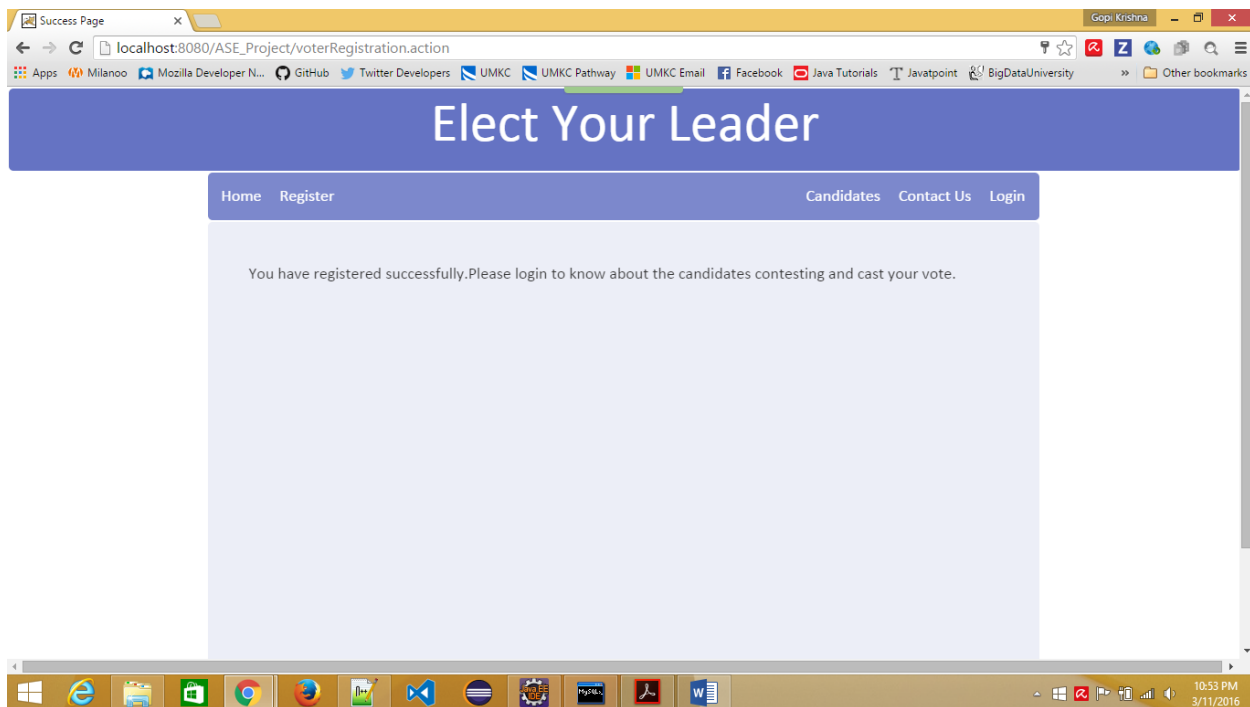
Employer1	<input type="text" value="Organisation name"/>	<input type="text" value="Week --, ----"/>
Employer2	<input type="text" value="Organisation name"/>	<input type="text" value="Week --, ----"/>
Employer3	<input type="text" value="Organisation name"/>	<input type="text" value="Week --, ----"/>

Windows Taskbar: 10:48 PM 3/11/2016

Validations:

The screenshot shows a web browser window with the URL `localhost:8080/ASE_Project/VoterRegistration.jsp`. The page has a blue header with the text "Elect Your Leader". Below the header is a navigation bar with links: Home, Register, Candidates, Contact Us, and Login. The main content area is titled "Voter Registration Page" and contains a form with the following fields: First Name (Gopi), Last Name (Krishna), Unique Id (SSN007), Date of Birth (03/02/2016), Email Id (empty), Password (masked with dots), and Re-Enter Password (masked with dots). A yellow tooltip with an exclamation mark icon and the text "Please fill out this field." is pointing to the Password field. At the bottom of the form are two buttons: Submit and Reset. The Windows taskbar at the bottom shows the time as 10:49 PM on 3/11/2016.

The screenshot shows the same web browser window, but the URL is `localhost:8080/ASE_Project/voterRegistration.action`. The page layout is identical to the first screenshot, but the form fields are empty. The Password field now has a red border and a red error message below it: "password and re-entered password are not equal". The Re-Enter Password field also has a red border and a red error message below it: "password and re-entered password are not equal". The Submit and Reset buttons are still present at the bottom of the form. The Windows taskbar at the bottom shows the time as 10:50 PM on 3/11/2016.



VII. Implementation

All the user interfaces are developed using html and css.

Validations have been checked through html and Java.

Database tables are created using MYSQL.

VIII. Deployment

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

All the artifacts for Increment2 are at below link

https://github.com/gkswargam/ASE_Project_Team9/tree/master/Increment2

IX. Project Management

Work Completed

- **Description**

In Increment2 we have refined our user interfaces, added validations to form data being sent to server, worked on encrypting fields that must be encrypted and stored, created class diagrams and sequence diagrams for overall functionality and created database tables required for project.

- **Responsibility**

(1) Created database tables	Alsofyani,Mohannad Eida M
(2) Worked on encrypting form fields	JyothiKiran Nandanamudi
(3) Draw class diagrams and sequence diagrams	Sidrah Junaid,
(4) Work on form validation	Gopi Krishna Swargam

- **Time taken**

70 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/>

