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## **Project Deployment**

### **Introduction**

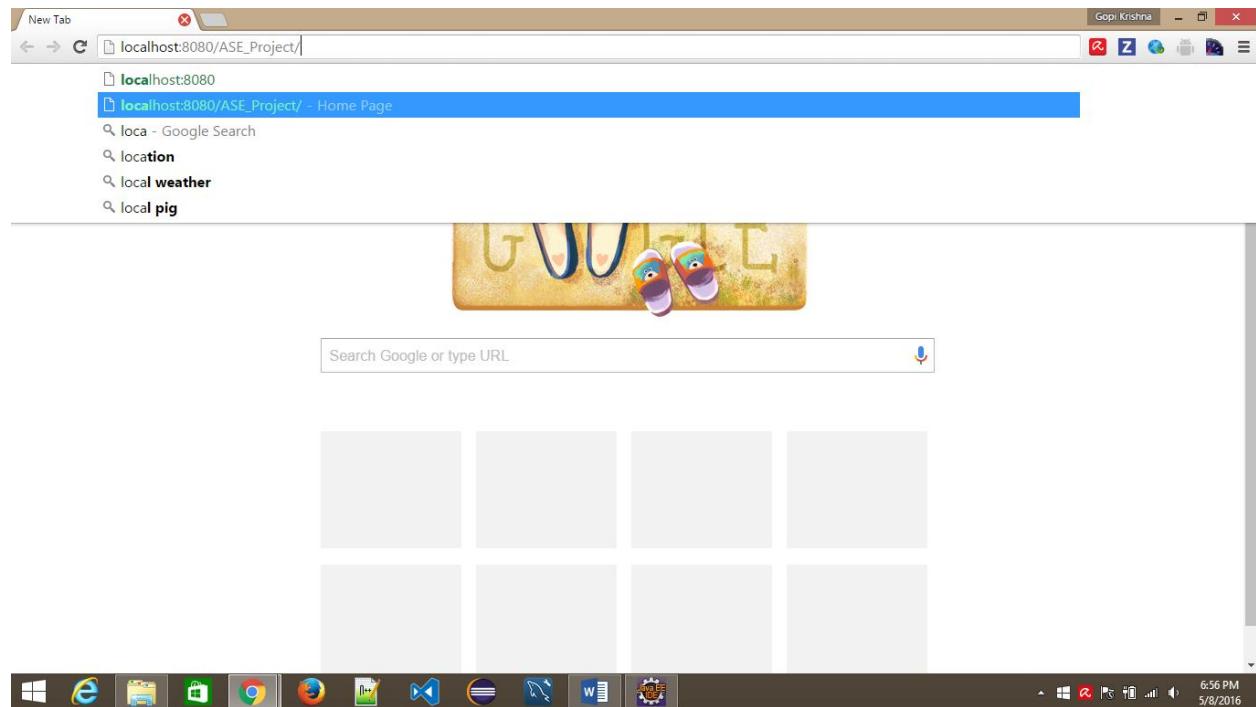
Elections play very important role in directing the future of any nation, everyone expects that the process of conducting elections be hassle free and transparent but we often run in too many issues during this process. When the elections are nearby and during the elections the government spends a lot 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 asses 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. 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 asses 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

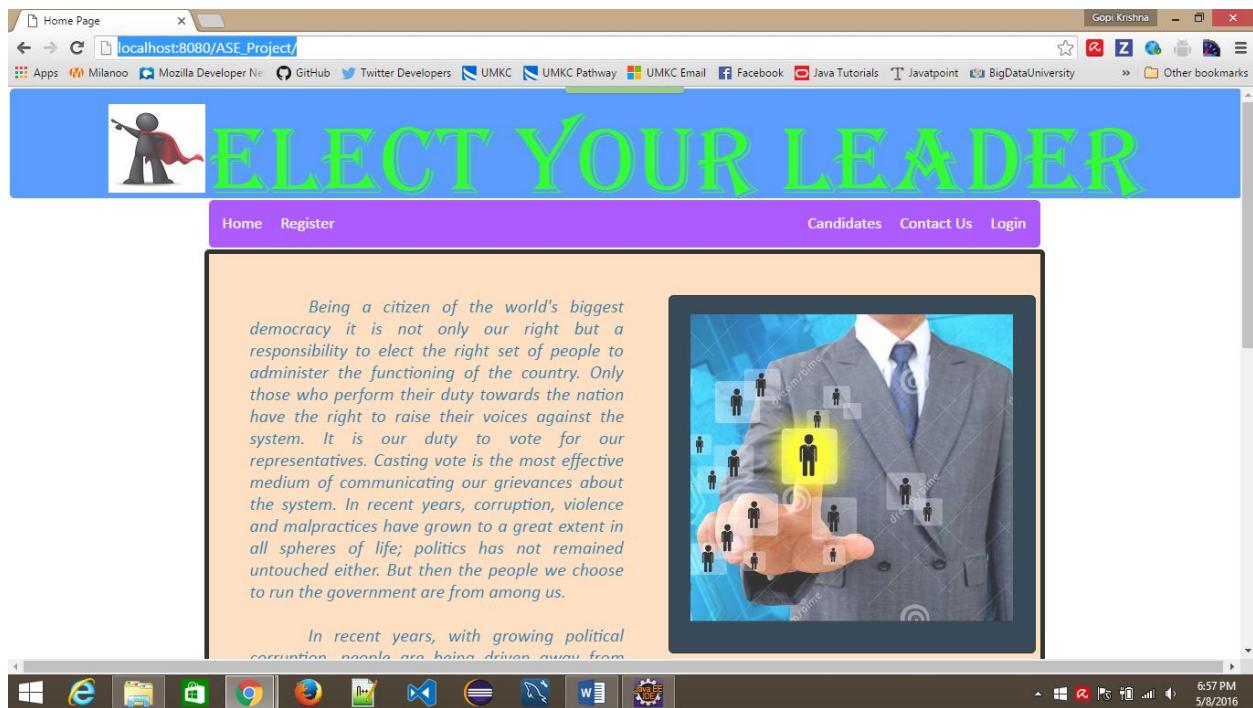
and man power. So essentially the voting system that is developed through our project saves time, money, effort and infrastructure that could be used for other productive purposes and also eases the entire process of conducting elections.

### Using our application

The application that we have developed is a web application which can be accessed from any browser and from any device which supports the browser application. Our application can be accessed through the address bar of the browser by typing its url once it is hosted on the web server. The web pages of the application are very user friendly and can be easily used by the people who are having minimum computer literacy. Any feature of the application can be accessed with a single click of mouse. Our application accesses the web cam of the user's device for taking the user's snap shot and for the devices not having the web cam we have provided the feature of directly uploading the image. We have used the MVC architecture to develop our application which is the best suited architecture for web applications.

Below are few screenshots of accessing our application through web browser:





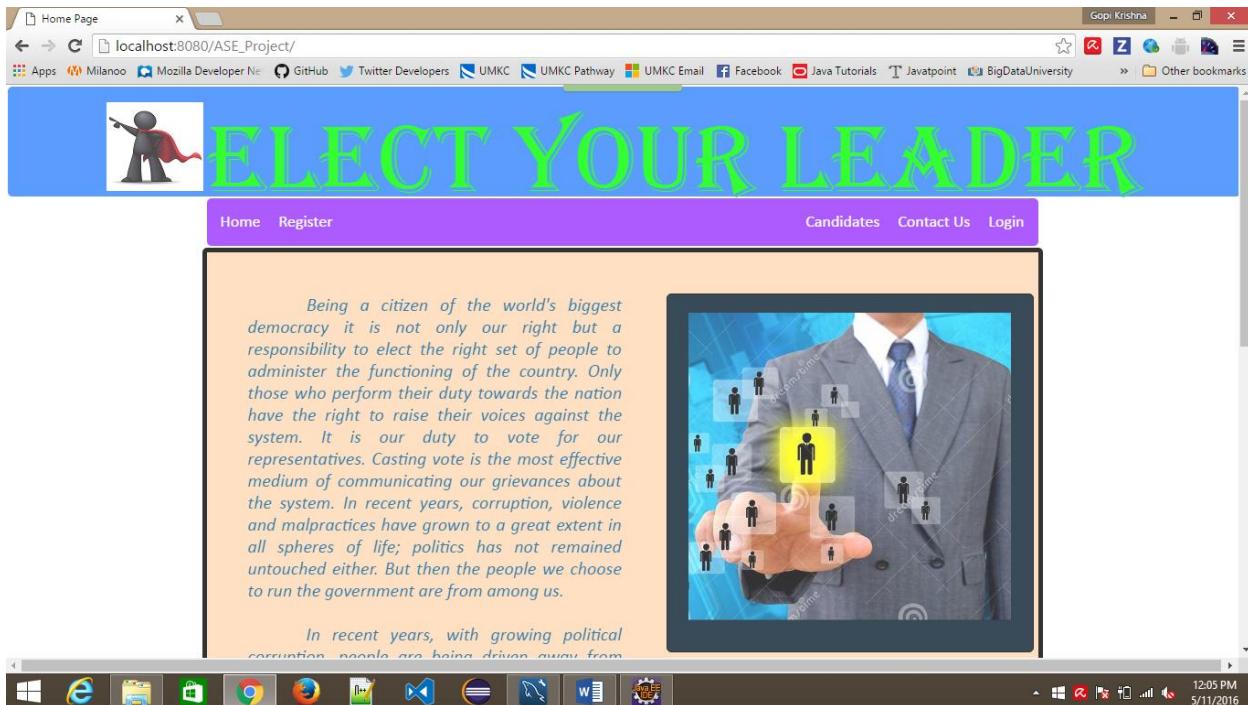
### Error recognition and handling

Below are some of the scenarios where our application may not work as expected due to different reasons:

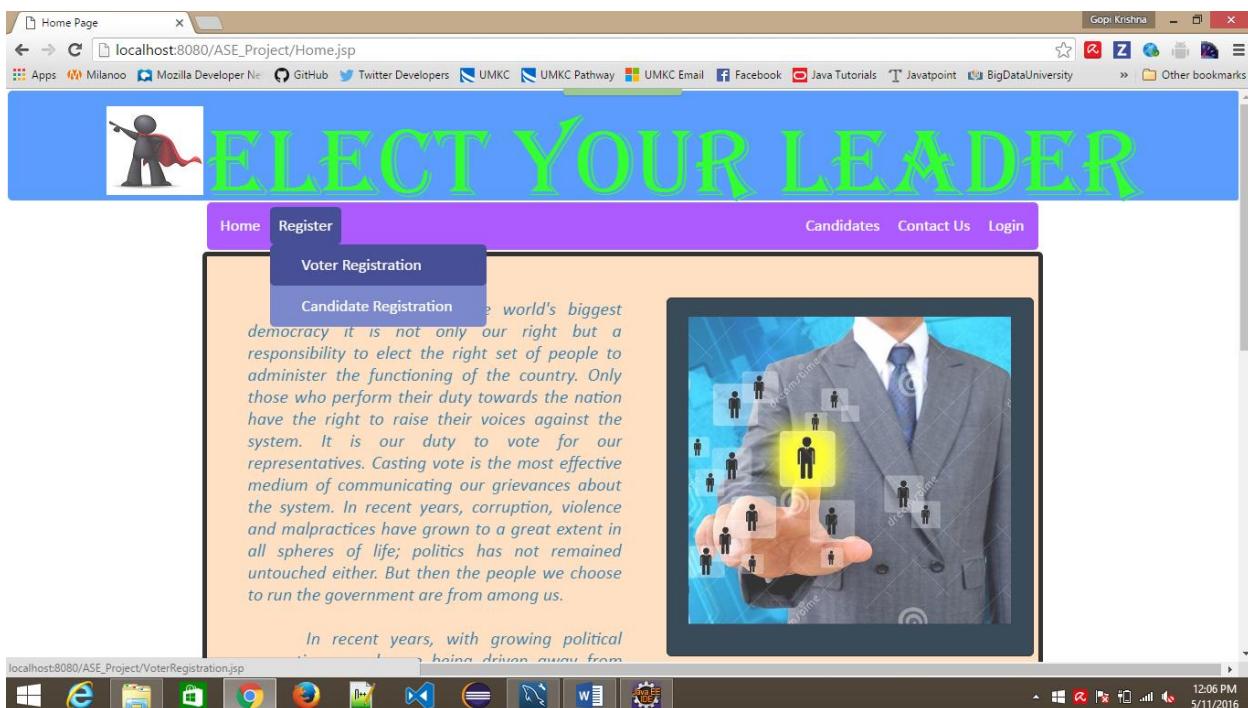
1. Our application accesses the web cam of the device from which it is accessed for taking the user's snapshot during the registration process, in case the device is not having a webcam it does not throw any error but the feature does not work. Alternatively, we have provided the image upload feature also.
2. During the voter registration or candidate registration process the user has to use his/her unique id and personal email Id. In case the unique id or the personal email Id is already found to be registered then it cannot be used to register again.
3. Once the user has registered as voter he or she can cast his vote only once, trying to vote gain will direct you to the page showing the candidate details to which you have voted.
4. In case the users have forgotten their password for voter login or candidate login then they can use the forgot password feature to retrieve their password. When using the forgot password feature the application will ask you for your registered email Id, password will not be sent to any other email Id other than the registered email Id.

## Interacting with the application

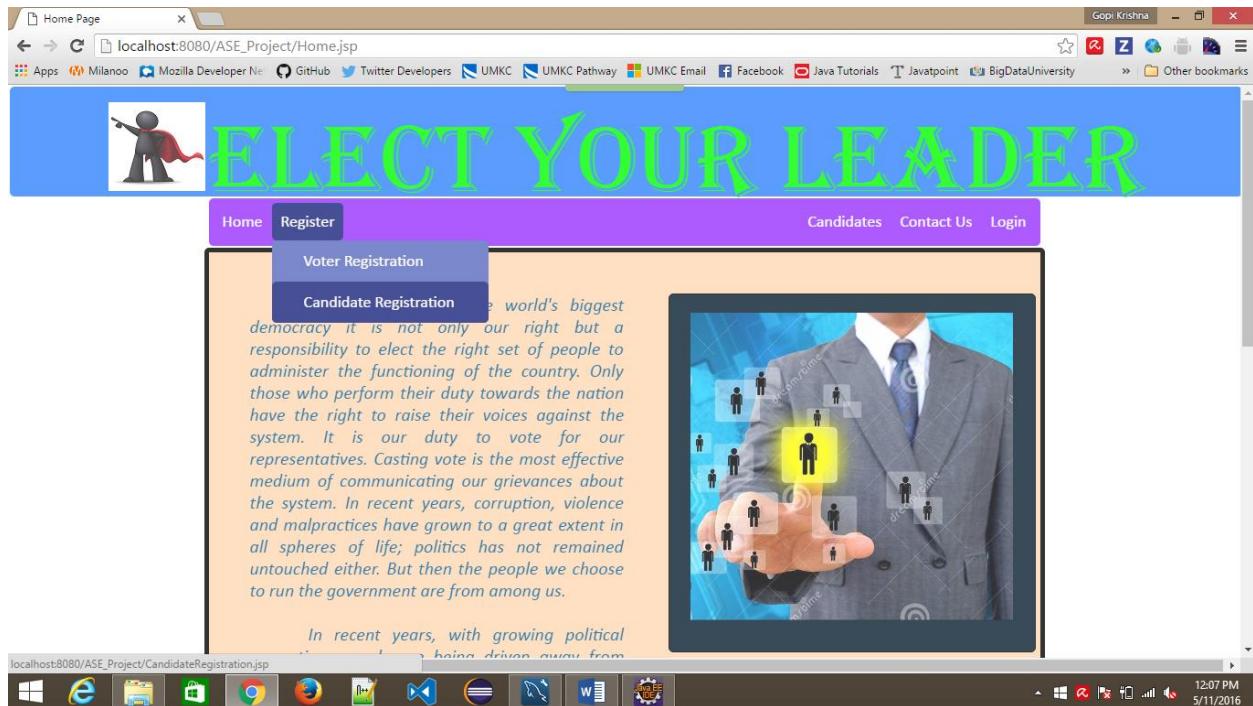
### Home Page of our application



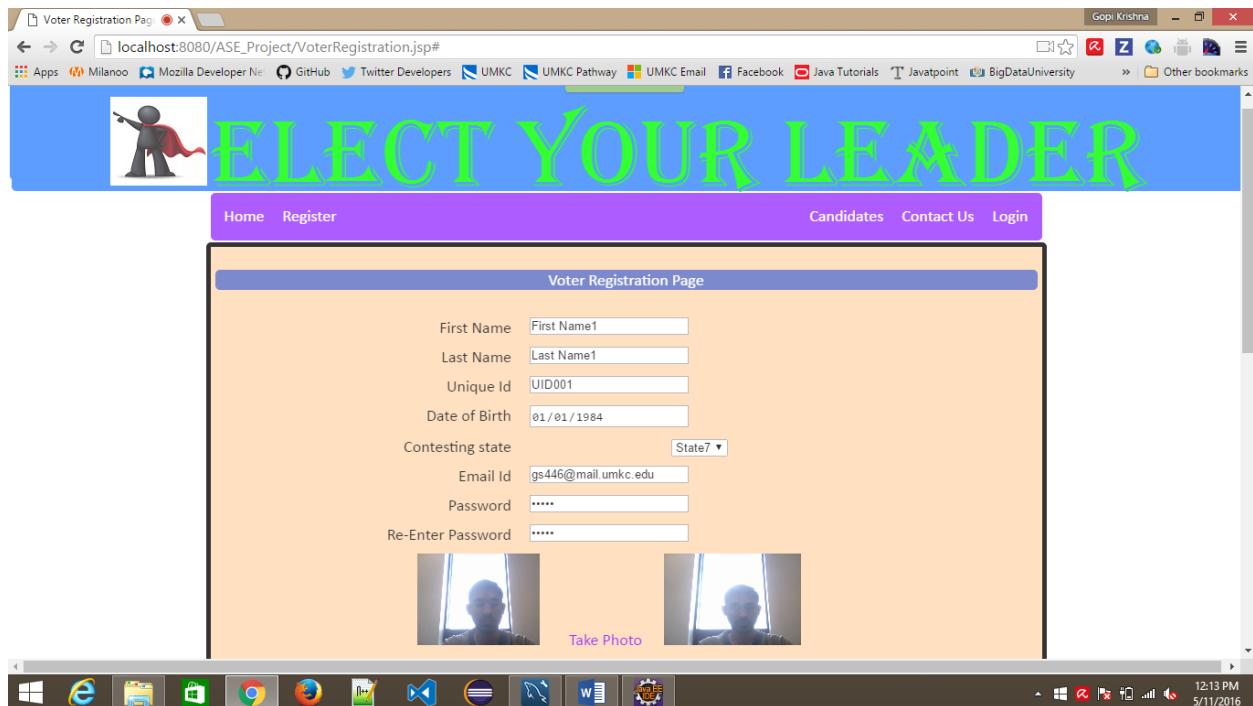
### Accessing Voter Registration screen from Register tab on home screen



## Accessing Candidate Registration screen from Register tab on home screen



## Voter registration through voter registration screen



Voter Registration Page

localhost:8080/ASE\_Project/VoterRegistration.jsp#

Gopi Krishna

First Name: First Name1  
Last Name: Last Name1  
Unique Id: UID001  
Date of Birth: 01/01/1984  
Contesting state: State7  
Email Id: gs446@mail.umkc.edu  
Password: \*\*\*\*\*  
Re-Enter Password: \*\*\*\*\*

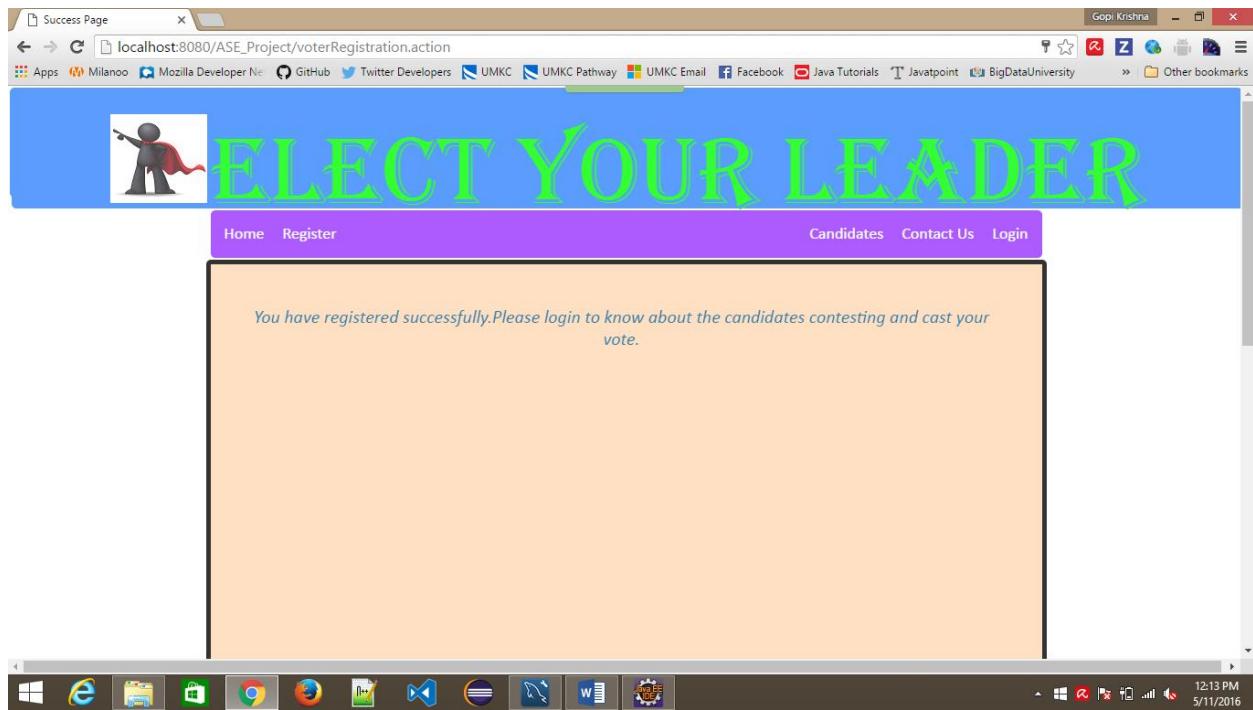
   
[Take Photo](#)

Your Image:  candidate.jpg

DOB File:  GRE\_S...pdf

12:13 PM  
5/11/2016

### Registration success screen after successful voter registration



## Data insertion in to voter table after successful voter registration

The screenshot shows the MySQL Workbench interface. In the 'Query Grid' tab, a query is run:

```

1 select * from voter;
2
3
4
5 truncate candidate;
    
```

The results show four rows inserted into the 'voter' table:

firstname	lastName	uid	dob	emailId	password1	password2	candidateVoted	voted	deletionStatus	voterSnap	state	dobFile
First Name4	Last Name4	VUEMDA0	1987-04-04	gs449@mail.umkc.edu	MTIzNDU2Nzg=	MTIzNDU2Nzg=	NULL	false	false	BLOB	State7	BLOB
First Name1	Last Name1	VUEMDA0	1984-01-01	gs446@mail.umkc.edu	MTIzNDU=	MTIzNDU=	NULL	false	false	BLOB	State7	BLOB
First Name2	Last Name2	VUEMDA0	1985-02-02	gs447@mail.umkc.edu	MTIzNDU2	MTIzNDU2	NULL	false	false	BLOB	State7	BLOB
First Name3	Last Name3	VUEMDA0	1986-03-03	gs448@mail.umkc.edu	MTIzNDU2Nw==	MTIzNDU2Nw==	NULL	false	false	BLOB	State7	BLOB
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

In the 'Action Output' section, three log entries are shown:

- 1 12:05:27 select \* from voter LIMIT 0, 1000 0 row(s) returned 0.062 sec / 0.000 sec
- 2 12:05:33 select \* from candidate LIMIT 0, 1000 0 row(s) returned 0.000 sec / 0.000 sec
- 3 12:19:18 select \* from voter LIMIT 0, 1000 4 row(s) returned 0.000 sec / 0.000 sec

## Candidate registration through candidate registration screen

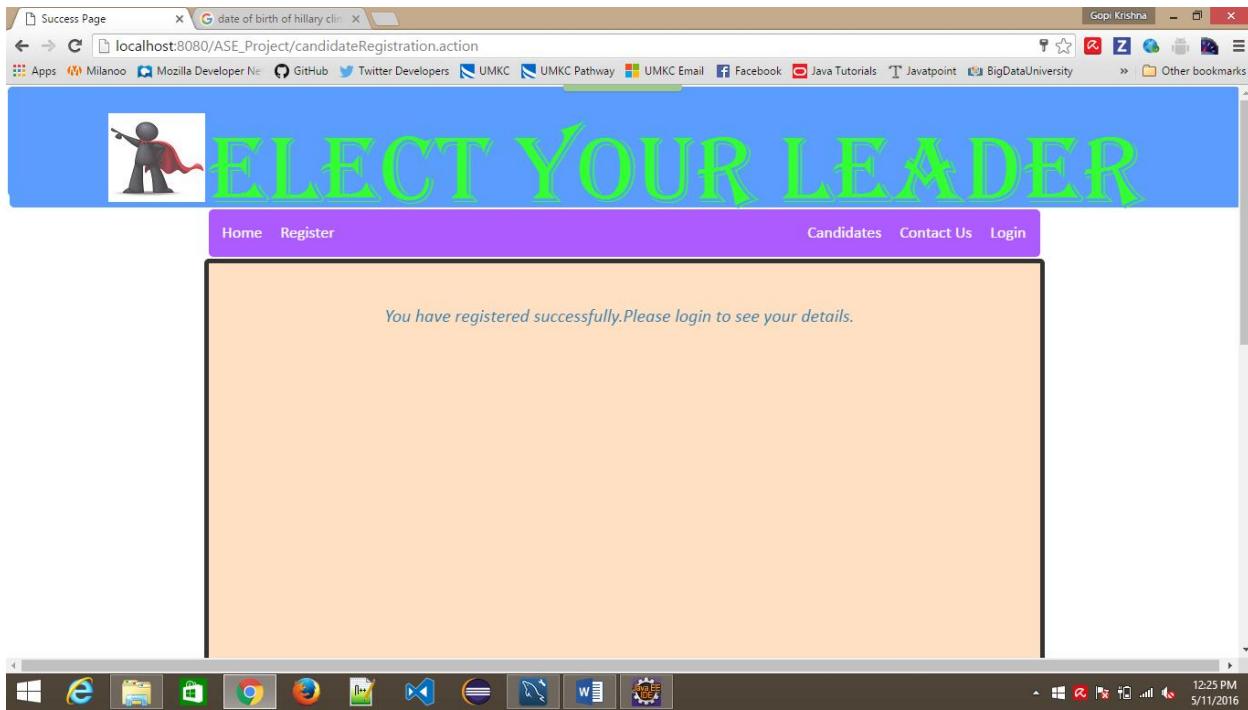
The screenshot shows a web browser window titled 'Candidate Registration' at the URL 'localhost:8080/ASE\_Project/CandidateRegistration.jsp'. The page has a header with a logo and the text 'ELECT YOUR LEADER'. Below the header is a navigation bar with links for Home, Register, Candidates, Contact Us, and Login.

The main content area is titled 'Candidate Registration Page' and contains the following form fields:

- First Name: Hillary
- Last Name: Clinton
- Unique Id: UID009
- Date of Birth: 10/26/1947
- Contesting state: State7
- Contesting Party: Party3
- Email Id: hillary.clinton@usa.com
- Password: (redacted)
- Re-Enter Password: (redacted)
- Education Details**
- High School: Oxford
- Under Graduation: Stanford

The bottom of the browser window shows the Windows taskbar with various pinned icons and the system clock indicating 12:24 PM on 5/11/2016.

## Registration success screen after successful candidate registration



## Data insertion into candidate table after successful candidate registration

A screenshot of MySQL Workbench. The "Query 1" tab shows the SQL query "select \* from candidate;". The results grid displays five rows of data corresponding to the candidates Ted Cruz, Bernie Sanders, Donald Trump, Hillary Clinton, and a blank row. The "Action Output" pane at the bottom shows the execution history of the query, including the time, action, message, and duration.

## Voter registration failure on trying to register with already registered UID and email Id

Screenshot of the Voter Registration Page:

The page title is "Voter Registration Page". The form fields are:

- First Name: First Name5
- Last Name: Last Name5
- Unique Id: UID001
- Date of Birth: 05/04/2016
- Contesting state: State6
- Email Id: gs446@mail.umkc.edu
- Password: (two input fields)
- Re-Enter Password: (two input fields)

Below the form is a placeholder image of a person taking a photo, with buttons for "Take Photo" and "photo of you".

Below the image are file upload fields:

- Your Image: Choose File candidate.jpg
- DOR File: Choose File GRF\_S.pdf

At the bottom of the page, there is a note: "Your Image is not uploaded".

Screenshot of the Registration Error Page:

The page title is "Registration Error Page". The message displayed is:

*Your UID or EmailId is already used for registration. Please go to login page to login or if you have forgot password please click on forgot password link on login page to retrieve your password*

## Candidate registration failure on trying to register with already registered UID and email Id

Screenshot of a web browser displaying the "Candidate Registration" page. The URL is `localhost:8080/ASE_Project/CandidateRegistration.jsp`. The page title is "ELECT YOUR LEADER". The registration form is filled with the following data:

First Name	Barack
Last Name	Obama
Unique Id	UID006
Date of Birth	12/22/1970
Contesting state	State7
Contesting Party	Party4
Email Id	barack.obama@usa.com
Password	***
Re-Enter Password	***
Education Details-	
High School	Cambridge
Under Graduation	MIT
Graduation	Stanford

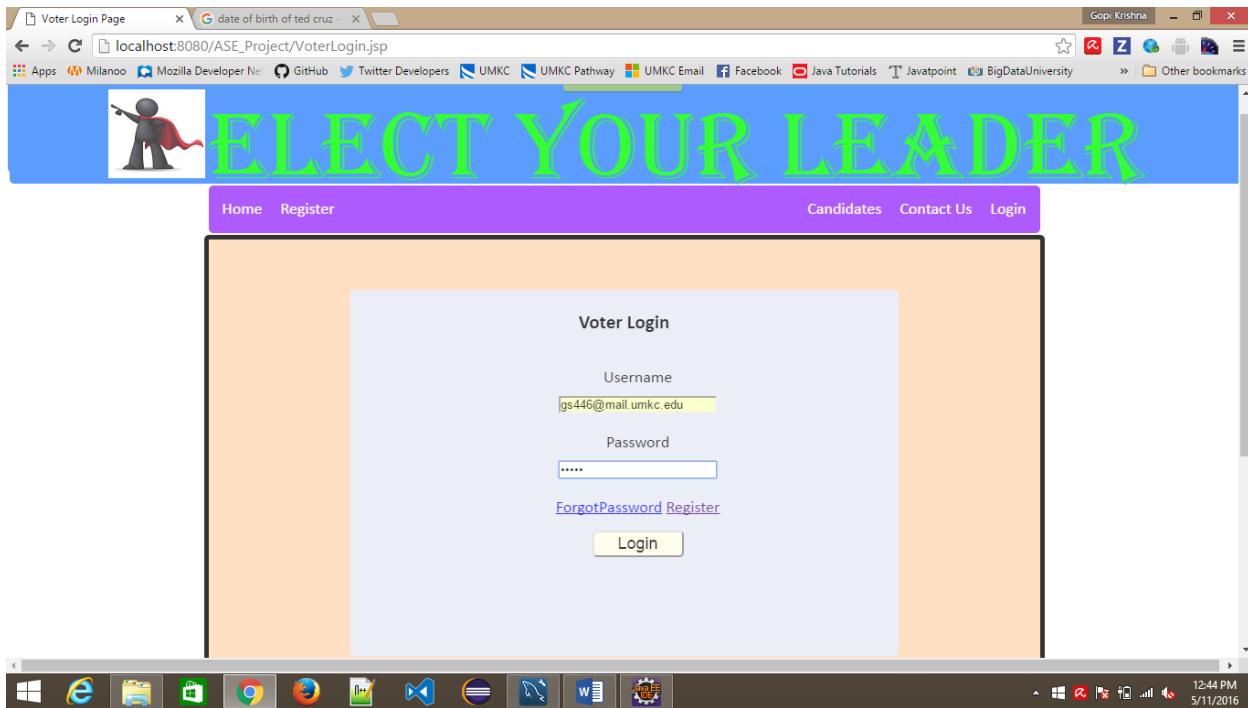
The browser status bar shows the date as 5/11/2016 and the time as 12:43 PM.

Screenshot of a web browser displaying the "Registration Error Page" with the URL `localhost:8080/ASE_Project/candidateRegistration.action`. The page title is "ELECT YOUR LEADER". The error message is:

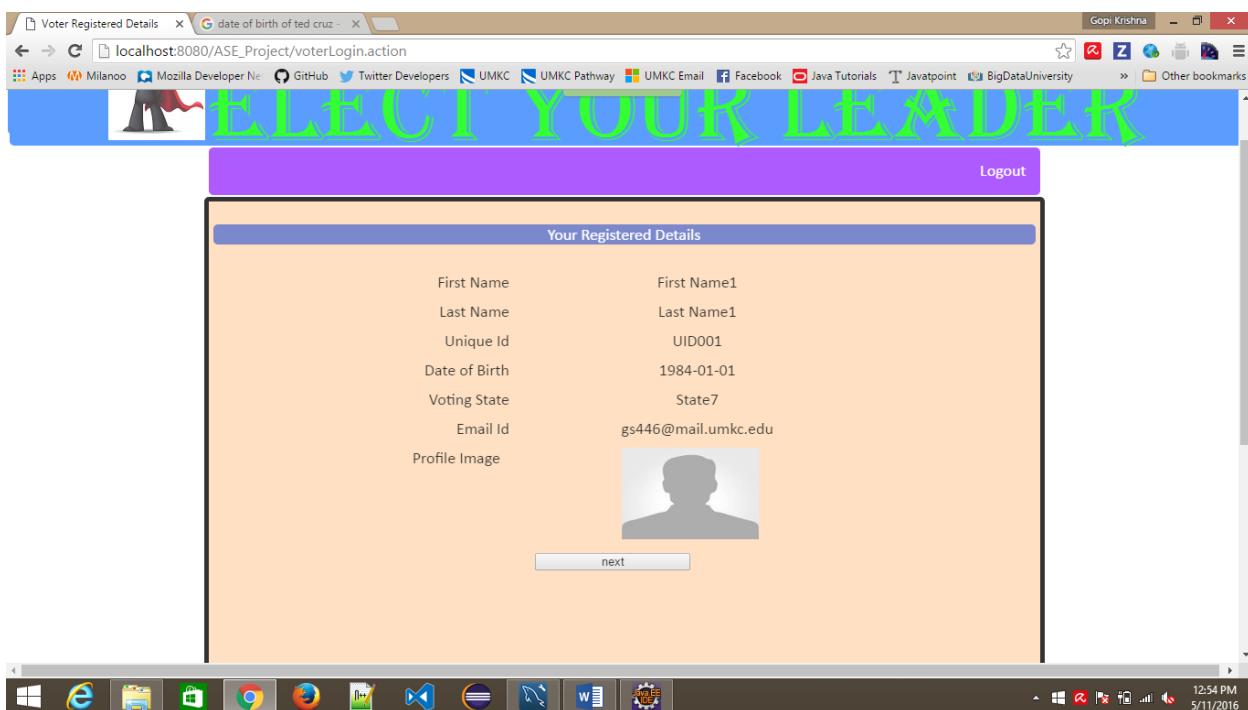
Your UID or EmailId is already used for registration. Please go to login page to login or if you have forgot password  
please click on forgot password link on login page to retrieve your password

The browser status bar shows the date as 5/11/2016 and the time as 12:43 PM.

## Voter login through voter login screen



## Voter registered details after voter login



## Showing candidate details in voter's region after clicking next inside voter login session

A screenshot of a Microsoft Edge browser window. The title bar says "Contesting Candidates pa" and "localhost:8080/ASE\_Project/castVote.action". The main content area displays a list of four candidates:

- First Name: Ted  
Last Name: Cruz  
UID: UID006  
Party: Party4
- First Name: Bernie  
Last Name: Sanders  
UID: UID007  
Party: Party1
- First Name: Donald  
Last Name: Trump  
UID: UID008  
Party: Party2
- First Name: Hillary  
Last Name: Clinton  
UID: UID009

The browser has a standard Windows 10 taskbar at the bottom with various pinned icons.

## Vote feature to vote for any of the candidates from the candidates list shown

A screenshot of a Microsoft Edge browser window, identical to the previous one but with a voting form added at the bottom:

First Name: Bernie  
Last Name: Sanders  
UID: UID007  
Party: Party1

First Name: Donald  
Last Name: Trump  
UID: UID008  
Party: Party2

First Name: Hillary  
Last Name: Clinton  
UID: UID009  
Party: Party3

Vote:  UID006  UID007  UID008  UID009

The browser has a standard Windows 10 taskbar at the bottom with various pinned icons.

## Voting for one of the candidates

The screenshot shows a web browser window with the URL [localhost:8080/ASE\\_Project/castVote.action](http://localhost:8080/ASE_Project/castVote.action). The page displays three political figures with their details:

- First Name: Bernie  
Last Name: Sanders  
UID: UID007  
Party: Party1
- First Name: Donald  
Last Name: Trump  
UID: UID008  
Party: Party2
- First Name: Hillary  
Last Name: Clinton  
UID: UID009  
Party: Party3

Below the candidates is a voting form with radio buttons and a submit button:

Vote:  UID006  UID007  UID008  UID009

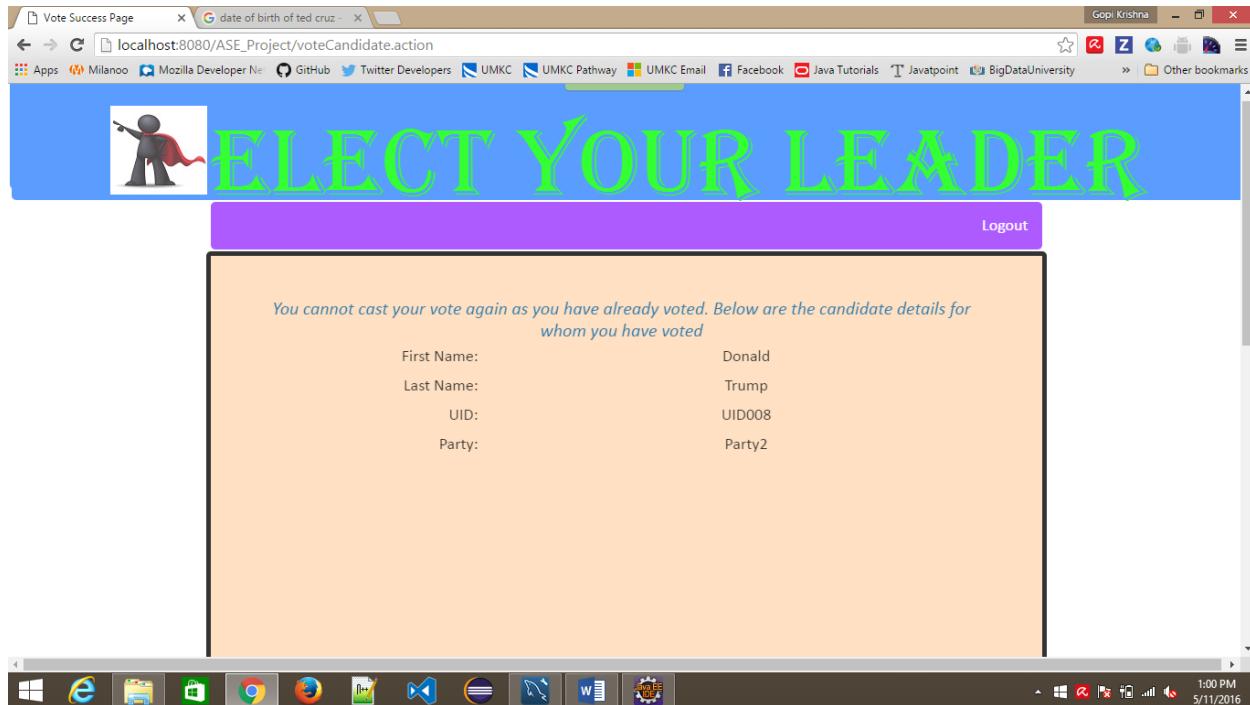
The browser's toolbar and taskbar are visible at the top and bottom of the window.

## After successfully voting

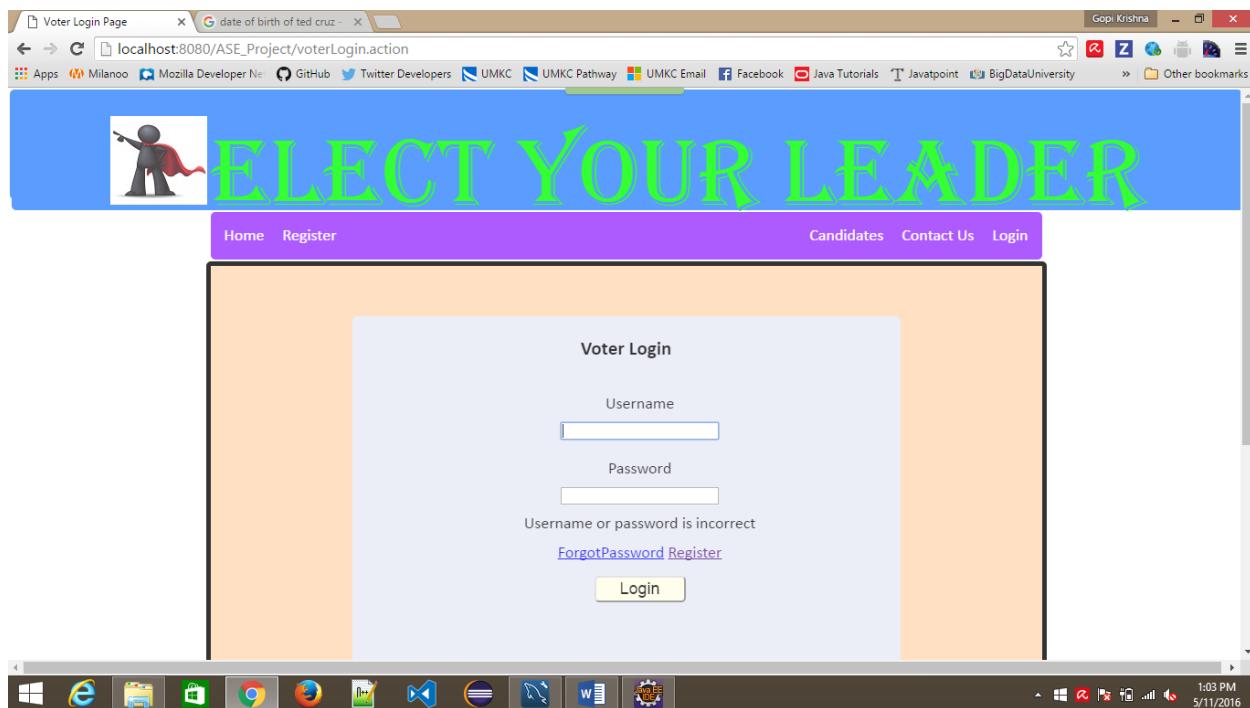
The screenshot shows a web browser window with the URL [localhost:8080/ASE\\_Project/voteCandidate.action](http://localhost:8080/ASE_Project/voteCandidate.action). The page features a large blue header with the text "ELECT YOUR LEADER". Below the header is a purple navigation bar with a "Logout" button. The main content area contains the message: "You have casted your vote successfully."

The browser's toolbar and taskbar are visible at the top and bottom of the window.

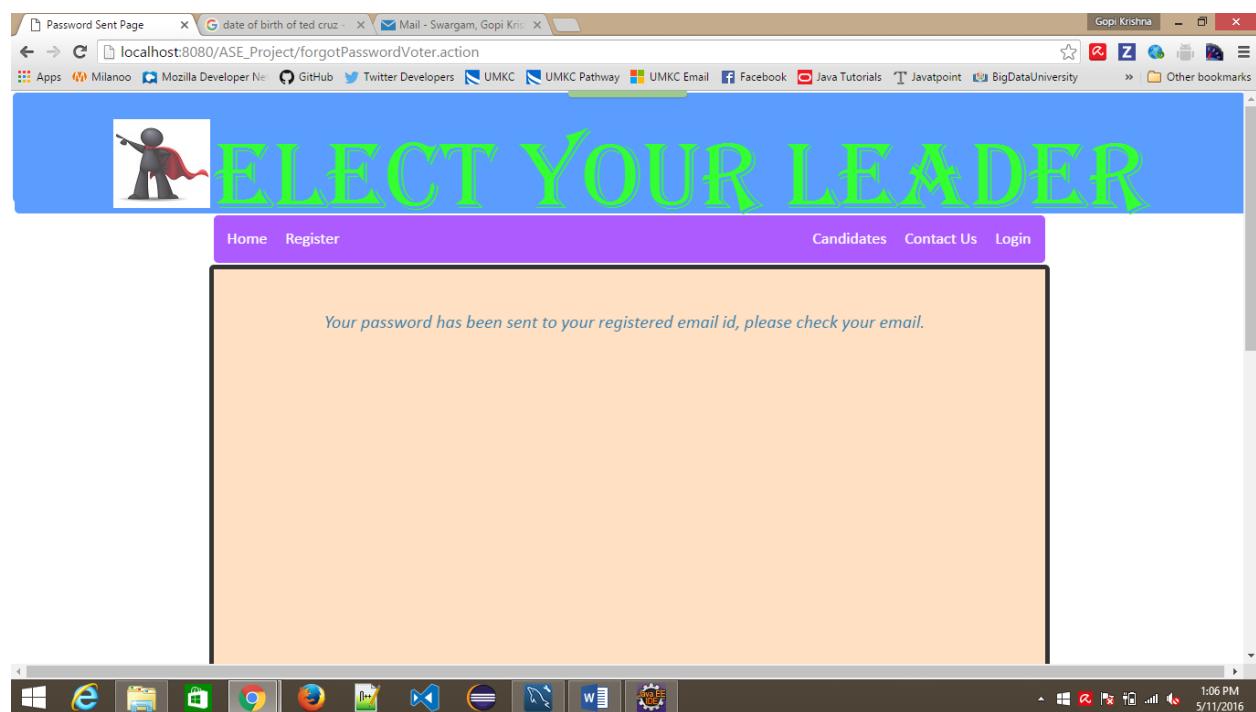
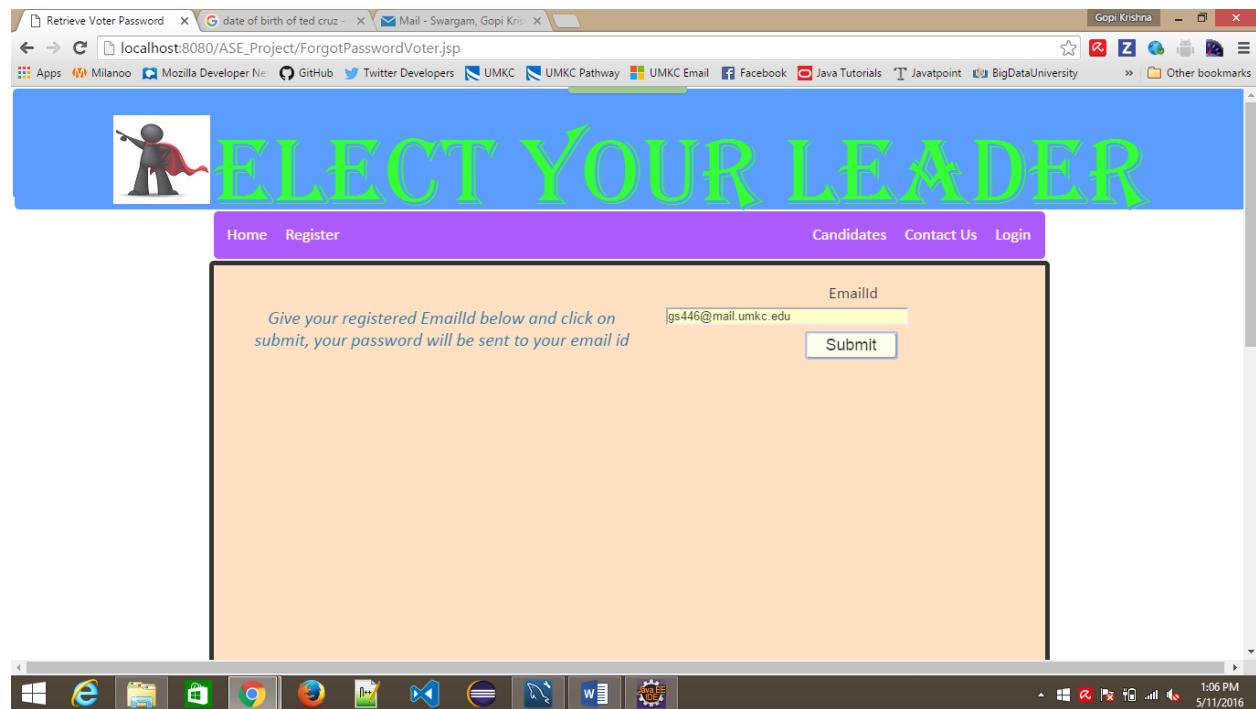
If already voted and if the voter is trying to vote again, then showing the candidate details of candidate for whom vote is casted

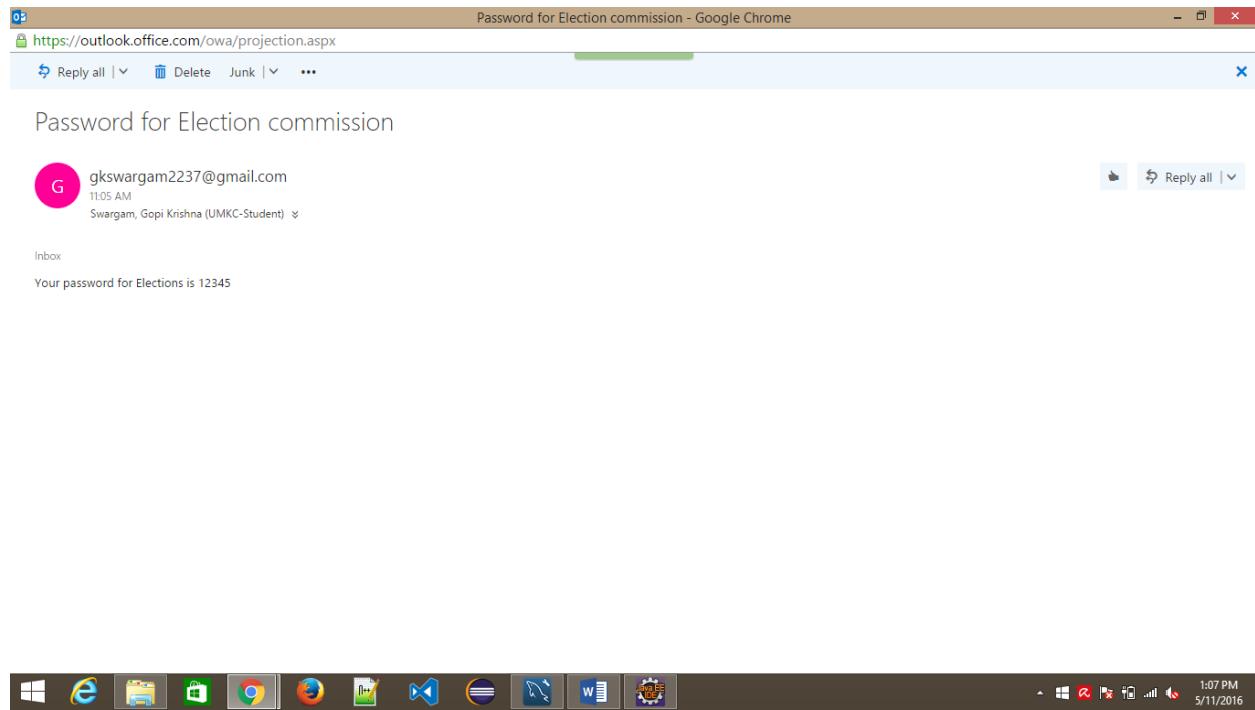


Voter login failure upon giving wrong log in credentials



## Retrieving password through forgot password feature





**Upon logging in for candidate, candidate details are shown as below**

The screenshot shows a web browser window with the URL "localhost:8080/ASE\_Project/candidateLogin.action". The page title is "ELECT YOUR LEADER". A purple header bar contains a "Logout" button. The main content area is titled "Your Registered Details" and displays the following information:

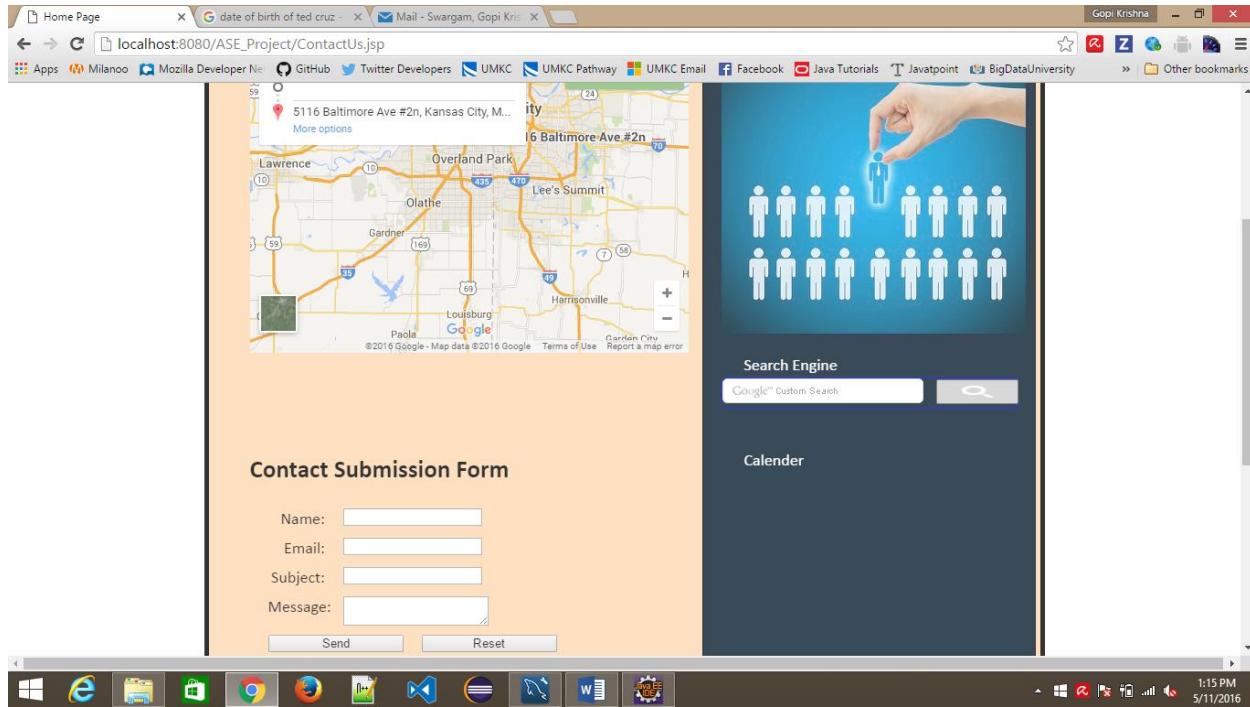
First Name	Hillary
Last Name	Clinton
Unique Id	UID009
Date of Birth	1947-10-26
Voting State	State7
Email Id	hillary.clinton@usa.com
GradSchool Name	Harvard
UnderGradSchool Name	Stanford
HighSchool Name	Oxford
Profile Image	

## Candidates contesting in different regions can be seen through candidates tab

The screenshot shows a web browser window with the URL [localhost:8080/ASE\\_Project/Candidates.jsp](http://localhost:8080/ASE_Project/Candidates.jsp). The page has a blue header with the text "ELECT YOUR LEADER". Below the header is a purple navigation bar with links for Home, Register, Candidates, Contact Us, and Login. A central orange box contains the heading "Know the candidates contesting" and a dropdown menu labeled "Select the state" with options: State1, State2, State3, State4, State5, State6, and State7. To the right of the dropdown is a "Submit" button. Below this section is a grey sidebar with "Quick Links" (Home, Voter Registration, Candidate Registration, Voter Login, Candidate Login, Contact Us), social sharing icons for Facebook, Twitter, Google+, and LinkedIn, and a "References" section listing IBM Analytics, IBM Bigdata Blog, and IBM Bigdata Blog.

The screenshot shows the same web browser window after a search. The URL is now [localhost:8080/ASE\\_Project/candidateSearch.action](http://localhost:8080/ASE_Project/candidateSearch.action). The search results for "Ted Cruz" are displayed in three sections. The first section shows the candidate's details: First Name: Ted, Last Name: Cruz, UID: UID006, Party: Party4, and Votes Casted: 0. The second section shows another candidate: First Name: Bernie, Last Name: Sanders, UID: UID007, Party: Party1, and Votes Casted: 0. The third section shows a third candidate: First Name: Donald, Last Name: Trump, UID: UID008, Party: Party2, and Votes Casted: 0.

**We can be contacted through contact us page through which you can send email to us about any information that you want regarding the elections**



## Project Management

### Project Management Report

We have followed Agile model for completing our project. We have divided our project in to four modules and under each module we have created tasks. Tasks created under each module are assigned human hours based on the amount of work required to complete each task. Based on the total number of human hours required to complete each task, the tasks under each module are equally assigned to all of us. To track the progress of each task under each module we have created milestones for each module using the project management tool Zen hub which is integrated with GitHub. We as a team have meet regularly to discuss the progress of the tasks assigned to each one of us and share the knowledge and concerns while completing the project work.

Below are the screenshots of our project management using Zen hub which is integrated to GitHub.

#### Module1 (Milestone 1)

The screenshot shows a GitHub Issues page for the repository "SCE-UMKC/AESP16\_ElectYourLeader\_Team9". The search bar contains the query "milestone:increment1 is:closed". There are 5 closed issues listed:

- Develop user interfaces set2 (8)
- Develop user interfaces set1 (8)
- Draw wireframes (5)
- Team meeting for finalizing layouts (3)
- Draw layouts on board (3)

Each issue includes a link, the number of comments, and the date it was opened 11 days ago by gkswargam. The issues are grouped under the heading "0 Open" and "5 Closed".

## Module2 (Milestone 2)

The screenshot shows a GitHub Issues page for the same repository, but with a different search query: "milestone:increment2 is:closed". There are 8 closed issues listed:

- Create class diagrams (5)
- Work on database integration to user interfaces (13)
- Write code for database integration (8)
- Create database tables (8)
- Team discussion on database tables creation (8)
- Add the feature to add photo (13)
- Do form validations (13)
- Revisit and review developed user interfaces for adding any other features (8)

Each issue includes a link, the number of comments, and the date it was opened 11 days ago by gkswargam. The issues are grouped under the heading "0 Open" and "8 Closed".

## Module3 (Milestone 3)

The screenshot shows the GitHub Issues page for the repository 'SCE-UMKC/ASESP16\_ElectYourLeader\_Team9'. The URL is https://github.com/SCE-UMKC/ASESP16\_ElectYourLeader\_Team9/issues?q=milestone%3AIncrement3+is%3Aclosed. The search bar contains 'milestone:Increment3 is:closed'. There are 4 closed issues listed:

- #21: Update and delete operations on database (enhancement) - opened 11 days ago by gkswargam
- #20: Insert and read operations on database (enhancement) - opened 11 days ago by gkswargam
- #19: Add forgot password functionality (enhancement) - opened 11 days ago by gkswargam
- #18: Add login functionality (enhancement) - opened 11 days ago by gkswargam

At the bottom, there is a ProTip: 'Add no:assignee to see everything that's not assigned.'

## Module4 (Milestone 4)

The screenshot shows the GitHub Issues page for the same repository. The URL is https://github.com/SCE-UMKC/ASESP16\_ElectYourLeader\_Team9/issues?q=milestone%3AIncrement4+is%3Aclosed. The search bar contains 'milestone:Increment4 is:closed'. There are 8 closed issues listed:

- #29: Add Search engine and Calender in the Contact Us page (enhancement) - opened 11 days ago by nandanamudi
- #28: Map and contact form in Contact Us page (enhancement) - opened 11 days ago by nandanamudi
- #27: Add Like, share button to UI (enhancement) - opened 11 days ago by nandanamudi
- #26: Adding Quick links to UI (enhancement) - opened 11 days ago by nandanamudi
- #25: Add functionality for candidate search (enhancement) - opened 11 days ago by gkswargam
- #24: Add functionality to load candidate details (enhancement) - opened 11 days ago by gkswargam
- #23: Add enable and disable feature for voting (enhancement) - opened 11 days ago by gkswargam
- #22: Add voting functionality (enhancement) - opened 11 days ago by gkswargam

## **Final Project Evaluation**

We have divided the project in to four modules and tasks under each module were created and assigned to all of us equally. Every time we concentrated on the module to be completed, we have never thought of the project as whole. We have tried to complete each task under the module at a time and finally integrated at the end of each module to get the desired result. At times we had trouble to meet as a team as each one of us were enrolled in different courses and the timings for the courses were different and we had at times constraints related to travel. Despite the constraints we have tried our best to meet regularly to discuss and work on the project. We could have further added more features to our project but time was also a constraint as we had projects and assignments, quizzes and other examinations for other courses also, so balancing the time for each course and its course load was also a bit tough but we have tried our best to achieve the main functionality for our project. We have followed agile model so that we can review our progress regularly and incorporate any changes if required at any stage of the project. We have completed the project with almost all the features that we have planned to include in to it and all of us have contributed equally to complete the project.

## **Project Proposal**

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 asses 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. To the best of my knowledge most of the countries are following the above described procedure to conduct elections which involves a lot of money, time and effort. The goal of my team is to develop a system which can conduct the elections online which can essentially save a lot of money which can be used for the welfare of people, save time and effort of people and many other stake holders who involve in Elections.

The system or application that my team wants to develop basically replaces the above described traditional way of conducting elections by making everything online. 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 asses 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.

The application that my team is going to develop would include the below basic and essential features:

1. Allows all the voters to register by providing complete information about themselves.
2. Allows all the people who want to contest to register by providing complete information about themselves.
3. Allows the voters to see the complete profile of all the people who are contesting.
4. Enable the voting facility only on a particular date or in a time frame.

We would like to incorporate new features as we start and upon suggestions and ideas from others.

## **Project Plan**

### **Increment1**

1. Draw layouts on board
2. Team meeting for finalizing layouts
3. Draw wireframes
4. Develop user interfaces

### **Increment2**

1. Add the feature to add photo
2. Do form validations
3. Revisit and review developed user interfaces for adding any other features
4. Team discussion on database tables creation

5. Create database tables
6. Create class diagrams
7. Work on database integration to user interfaces

**Increment3**

1. Add login functionality
2. Add forgot password functionality
3. Insert and read operations on database
4. Update and delete operations on database

**Increment4**

1. Add voting functionality
2. Add enable and disable feature for voting
3. Add functionality to load candidate details
4. Add functionality for candidate search

# **First Increment Report**

## **Project Plan and First Increment**

### **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 asses 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 asses 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. Project Plan**

#### **Increment1**

5. Draw layouts on board
6. Team meeting for finalizing layouts
7. Draw wireframes
8. Develop user interfaces

#### **Increment2**

8. Add the feature to add photo
9. Do form validations
10. Revisit and review developed user interfaces for adding any other features
11. Team discussion on database tables creation
12. Create database tables
13. Create class diagrams
14. Work on database integration to user interfaces

#### **Increment3**

5. Add login functionality
6. Add forgot password functionality
7. Insert and read operations on database
8. Update and delete operations on database

#### **Increment4**

5. Add voting functionality
6. Add enable and disable feature for voting
7. Add functionality to load candidate details
8. Add functionality for candidate search

## Milestones Zenhub Screenshots

4 Open 0 Closed Sort ▾

**Increment1 submission**  
Due by February 19, 2016 Last updated 2 minutes ago As a part of Increment1 submission we are going to do the following... (more)

60% complete 2 open 3 closed Edit Close Delete

**Increment2**  
Due by March 11, 2016 Last updated 22 minutes ago Project plan for Increment2.

0% complete 7 open 0 closed Edit Close Delete

**Increment3**  
Due by April 6, 2016 Last updated 17 minutes ago Project plan for Increment3.

0% complete 4 open 0 closed Edit Close Delete

**Increment4**  
Due by April 29, 2016 Last updated 5 minutes ago Project plan for Increment4.

0% complete 4 open 0 closed Edit Close Delete

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Status API Training Shop Blog About Pricing

4:07 PM  
2/19/2016

4 Open 0 Closed Sort ▾

**Increment1 submission**  
Due by February 19, 2016 Last updated 1 minute ago As a part of Increment1 submission we are going to do the following... (more)

100% complete 0 open 5 closed Edit Close Delete

**Increment2**  
Due by March 11, 2016 Last updated 33 minutes ago Project plan for Increment2.

0% complete 7 open 0 closed Edit Close Delete

**Increment3**  
Due by April 6, 2016 Last updated 27 minutes ago Project plan for Increment3.

0% complete 4 open 0 closed Edit Close Delete

**Increment4**  
Due by April 29, 2016 Last updated 16 minutes ago Project plan for Increment4.

0% complete 4 open 0 closed Edit Close Delete

4:18 PM  
2/19/2016

## Increment1 milestone

This screenshot shows the GitHub Issues page for the repository `gkswargam / ASE_Project_Team9`. The search bar at the top contains the query `milestone:"Increment1 submission" is:closed`. The results show three closed issues:

- #3 **Draw wireframes** (opened 2 days ago by gkswargam) - Increment1 submissi...
- #2 **Team meeting for user interfaces** (opened 2 days ago by gkswargam) - Increment1 submissi...
- #1 **Draw Layouts** (opened 2 days ago by gkswargam) - Increment1 submissi...

The GitHub interface includes standard navigation buttons like Code, Issues (17), Pull requests (0), Boards, Burndown, Wiki, Pulse, Graphs, and Settings. A green "New issue" button is located in the top right corner.

This screenshot shows the GitHub Issues page for the repository `gkswargam / ASE_Project_Team9`. The search bar at the top contains the query `is:open milestone:"Increment1 submission"`. The results show two open issues:

- #5 **Develop user interfaces set2** (opened 2 days ago by gkswargam) - Increment1 submissi...
- #4 **Develop userinterfaces set1** (opened 2 days ago by gkswargam) - Increment1 submissi...

The GitHub interface includes standard navigation buttons like Code, Issues (17), Pull requests (0), Boards, Burndown, Wiki, Pulse, Graphs, and Settings. A green "New issue" button is located in the top right corner. A note at the bottom says: "ProTip! Exclude your own issues with -author:gkswargam."

The screenshot shows a web browser window with multiple tabs open. The active tab is 'Issues · gkswargam/ASE\_P' on GitHub. The URL is [https://github.com/gkswargam/ASE\\_Project\\_Team9/issues?q= milestone%3AIncrement1+submission%20is%3Aclosed](https://github.com/gkswargam/ASE_Project_Team9/issues?q= milestone%3AIncrement1+submission%20is%3Aclosed). The search bar at the top contains the query 'milestone:"Increment1 submission" is:closed'. Below the search bar are buttons for 'Filters', 'Labels', 'Milestones', and a green 'New issue' button. A link to 'Clear current search query, filters, and sorts' is also present. The main area displays a list of 5 closed issues, each with a checkbox, title, author, and a small preview of the issue content. At the bottom of the list is a 'ProTip!' message: 'Click a checkbox on the left to edit multiple issues at once.' The bottom of the browser window shows the Windows taskbar with various pinned icons and the date/time as 4:17 PM 2/19/2016.

Issue #	Title	Author	Preview
#5	Develop user interfaces set2	gkswargam	Increment1 submissi...
#4	Develop userinterfaces set1	gkswargam	Increment1 submissi...
#3	Draw wireframes	gkswargam	Increment1 submissi...
#2	Team meeting for user interfaces	gkswargam	Increment1 submissi...
#1	Draw Layouts	gkswargam	Increment1 submissi...

## Increment2 milestone

The screenshot shows a web browser window with multiple tabs open. The active tab is 'Issues · gkswargam/ASE\_P' on GitHub. The URL is [https://github.com/gkswargam/ASE\\_Project\\_Team9/milestones/Increment2](https://github.com/gkswargam/ASE_Project_Team9/milestones/Increment2). The search bar at the top contains the query 'is:open milestone:Increment2'. Below the search bar are buttons for 'Code', 'Issues 17', 'Pull requests 0', 'Boards', 'Burndown', 'Wiki', 'Pulse', 'Graphs', and 'Settings'. A link to 'Clear current search query, filters, and sorts' is also present. The main area displays a list of 7 open issues, each with a checkbox, title, author, and a small preview of the issue content. The bottom of the browser window shows the Windows taskbar with various pinned icons and the date/time as 4:12 PM 2/19/2016.

Issue #	Title	Author	Preview
#13	Database Integration	gkswargam	Increment2
#12	Create class diagrams	gkswargam	Increment2
#11	Create tables	gkswargam	Increment2
#10	Discussion on database tables creation	gkswargam	Increment2
#9	Revisit developed user interfaces	gkswargam	Increment2
#8	Form validations	gkswargam	Increment2
#7	Photo feature	gkswargam	Increment2

## Increment3 milestone

The screenshot shows the GitHub Issues page for the repository 'gkswargam / ASE\_Project\_Team9'. The URL is https://github.com/gkswargam/ASE\_Project\_Team9/milestones/Increment3. There are 17 issues listed, all of which are open. The issues are categorized under the 'Update and Delete operations', 'Insert and read operations', 'Forgot password functionality', and 'Login functionality' labels. Each issue has a small icon next to its title and a timestamp indicating when it was opened.

Issue Type	Title	Opened By	Milestone
Update and Delete operations	#17 Update and Delete operations	gkswargam	Increment3
	#16 Insert and read operations	gkswargam	Increment3
	#15 Forgot password functionality	gkswargam	Increment3
	#14 Login functionality	gkswargam	Increment3
Insert and read operations	#18 Voting functionality	gkswargam	Increment3
	#19 Enable or disable vote feature	gkswargam	Increment3
	#20 Load candidate details	gkswargam	Increment3
	#21 Candidate search	gkswargam	Increment3

## Increment4 milestone

The screenshot shows the GitHub Issues page for the repository 'gkswargam / ASE\_Project\_Team9'. The URL is https://github.com/gkswargam/ASE\_Project\_Team9/milestones/Increment4. There are 17 issues listed, all of which are open. The issues are categorized under the 'Candidate search', 'Load candidate details', 'Enable or disable vote feature', and 'Voting functionality' labels. Each issue has a small icon next to its title and a timestamp indicating when it was opened.

Issue Type	Title	Opened By	Milestone
Candidate search	#21 Candidate search	gkswargam	Increment4
	#20 Load candidate details	gkswargam	Increment4
	#19 Enable or disable vote feature	gkswargam	Increment4
	#18 Voting functionality	gkswargam	Increment4
Load candidate details	#22 Load candidate details	gkswargam	Increment4
	#23 Enable or disable vote feature	gkswargam	Increment4
	#24 Voting functionality	gkswargam	Increment4
	#25 Candidate search	gkswargam	Increment4

#### **IV. First Increment Report**

In our first increment we have developed all the required user interface screens required for our project. First we have drawn the layouts on the drawing board and then finalized on the final layouts. Then we have drawn the wireframes and finally developed the web pages.

##### **Existing Services/API**

Did not use any APIs or existing services for Increment1.

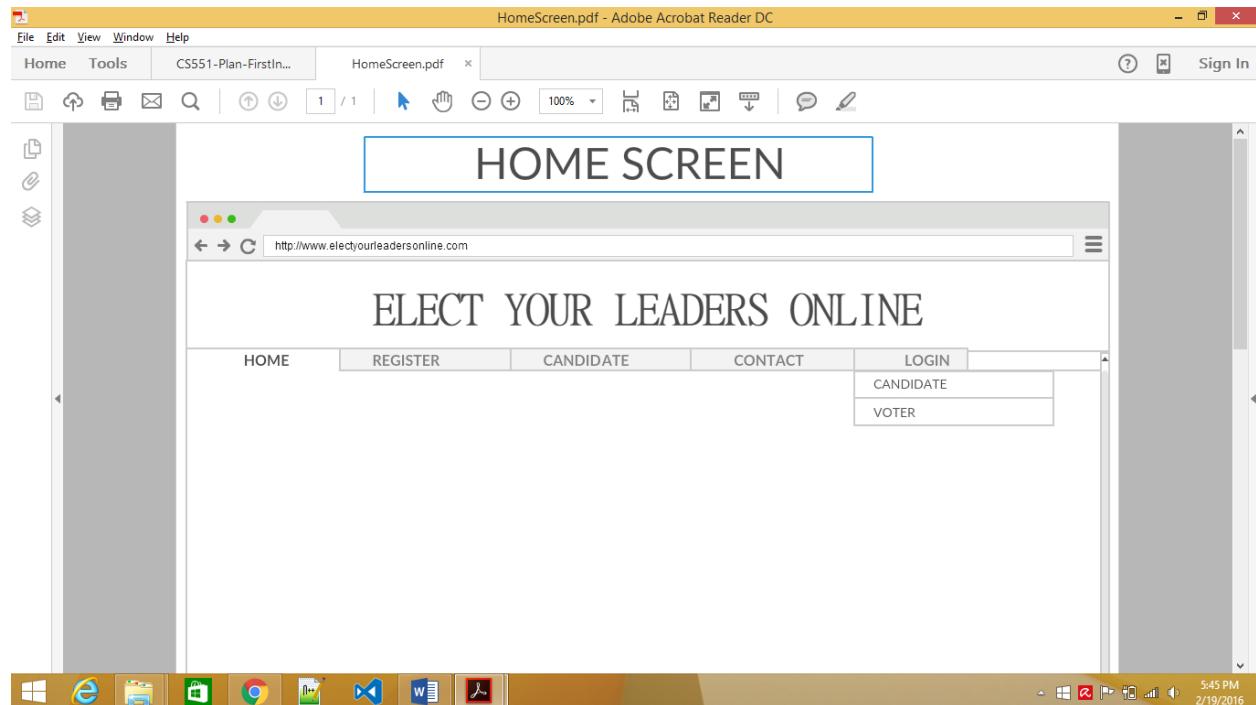
##### **Detail Design of Features (using tools)**

All the wireframes for the user interfaces developed in Increment1 are at below link

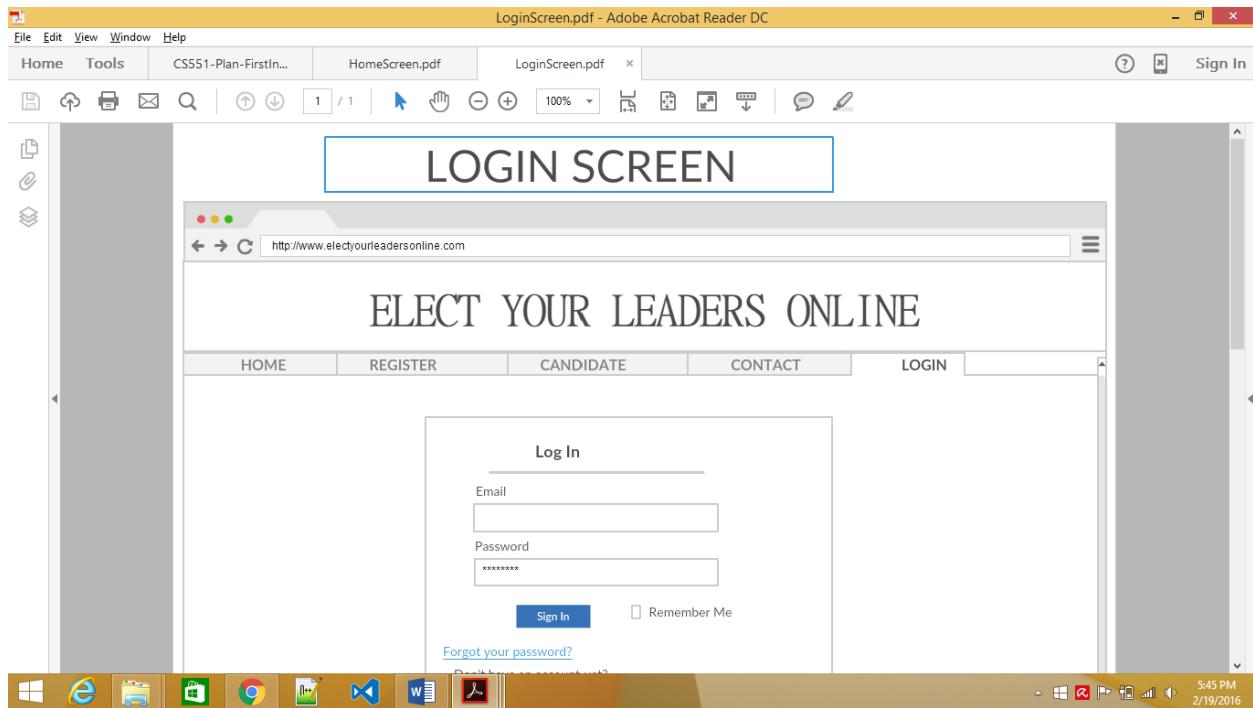
[https://github.com/gkswargam/ASE\\_Project\\_Team9/tree/master/Increment1/Documentation/Project\\_Wireframes](https://github.com/gkswargam/ASE_Project_Team9/tree/master/Increment1/Documentation/Project_Wireframes)

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

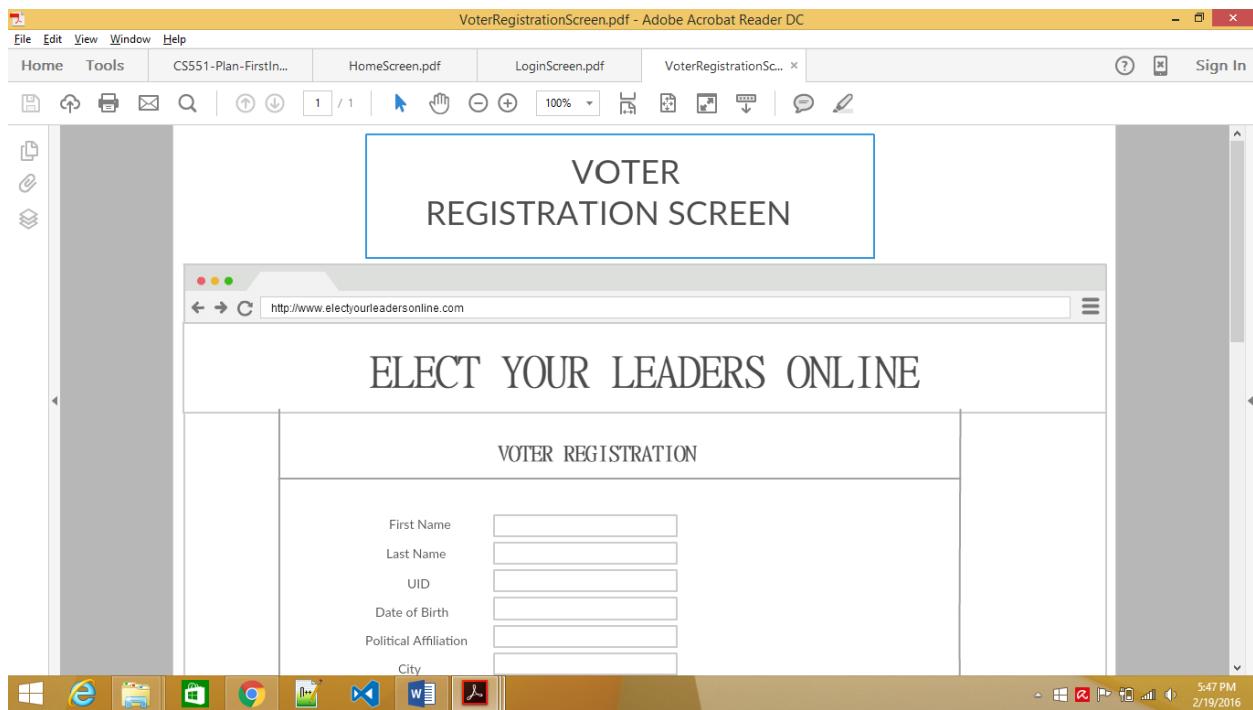
##### **Home Screen**



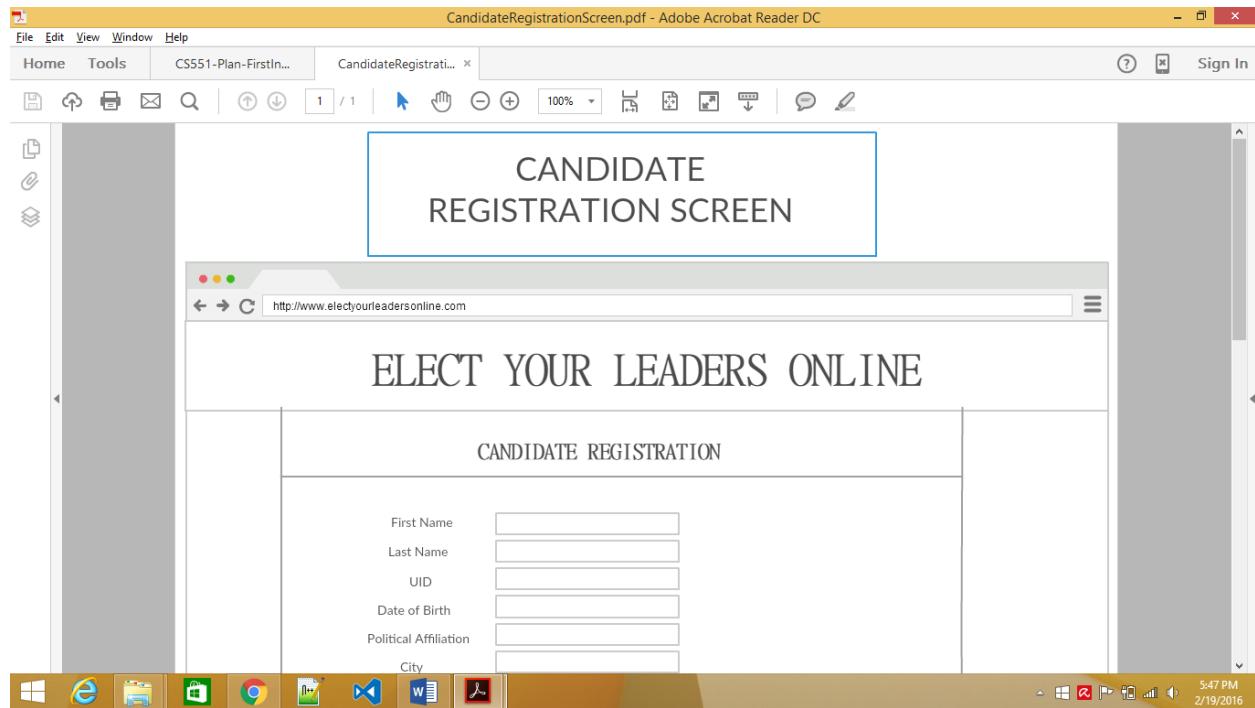
## Login Screen



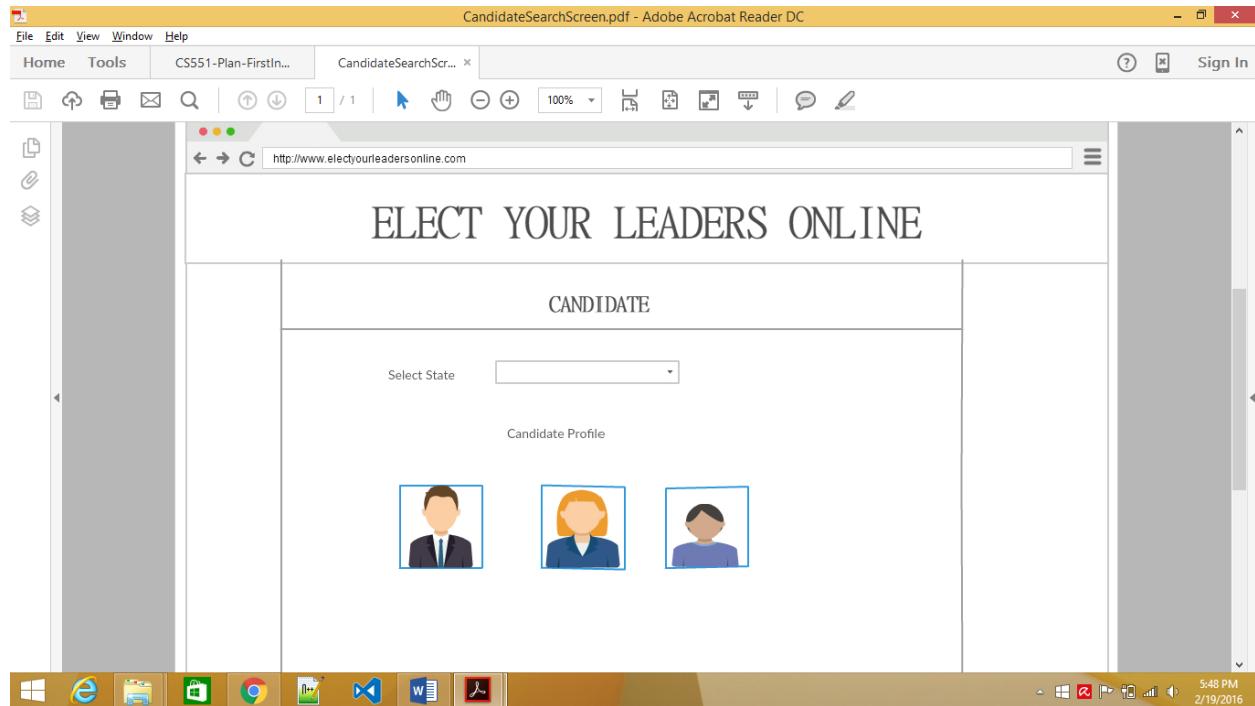
## Voter Registration Screen



## Candidate Registration Screen



## Candidate Search Screen

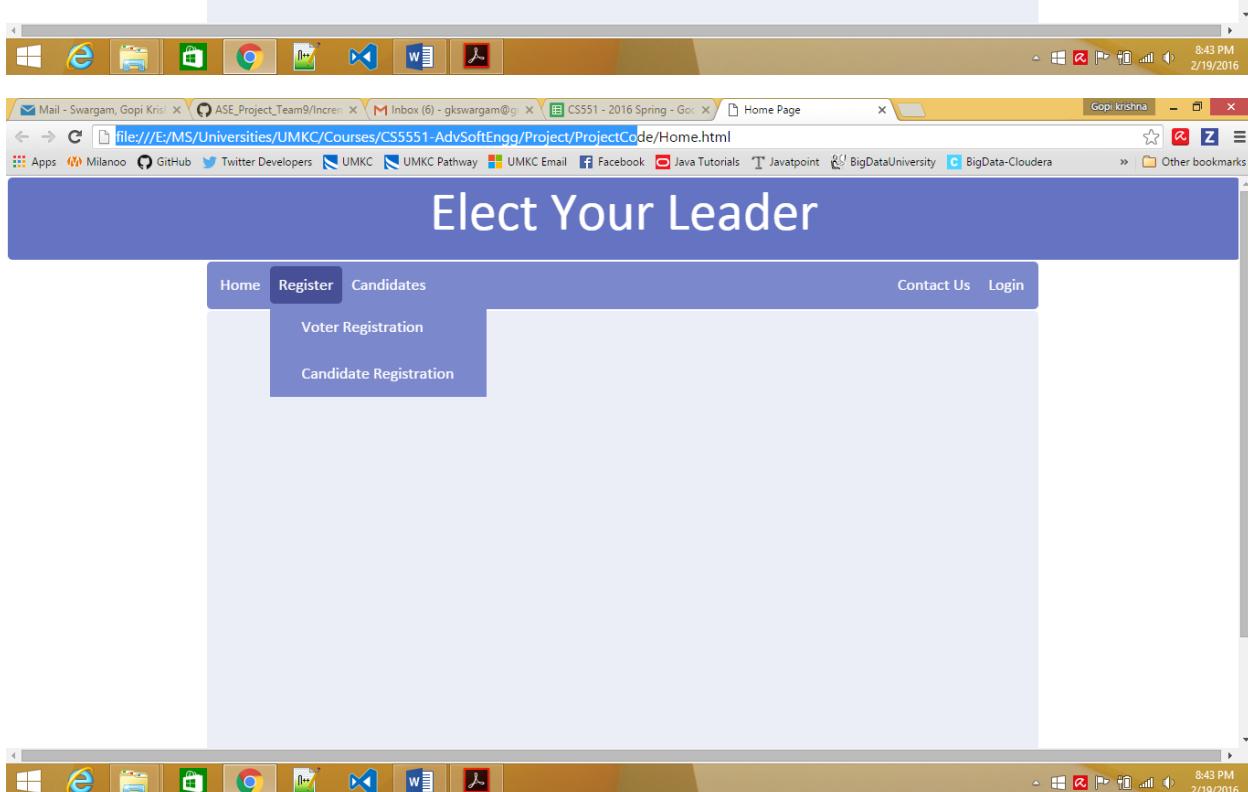
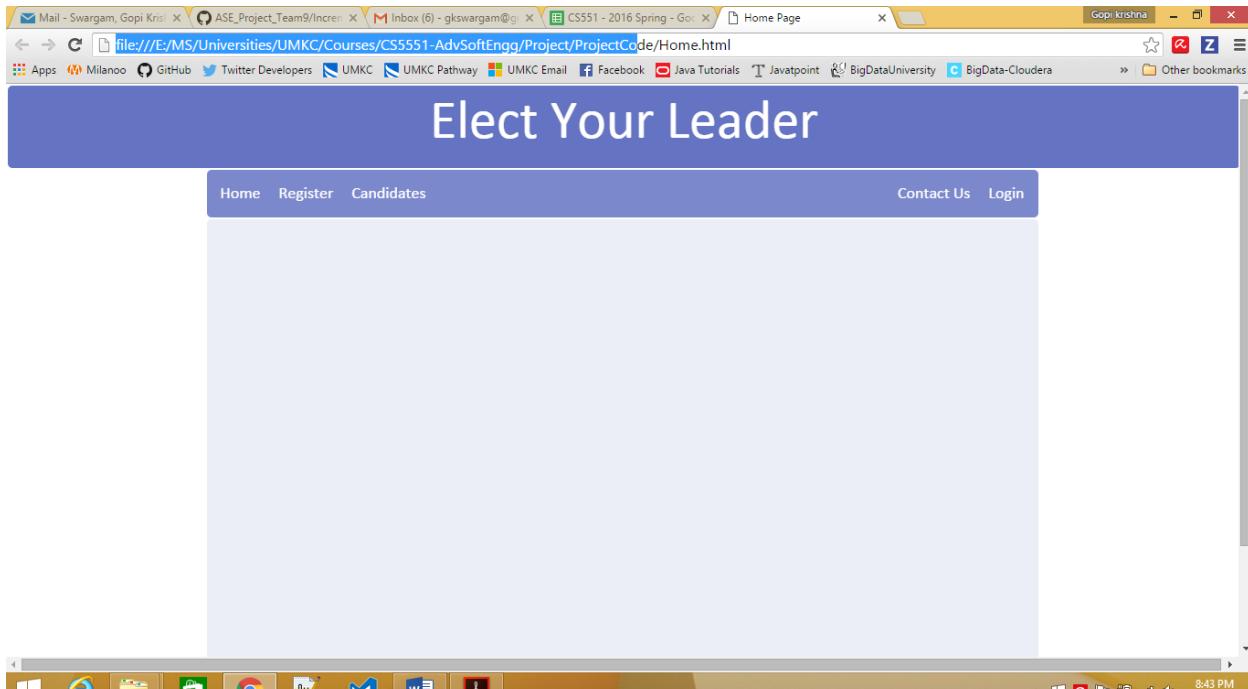


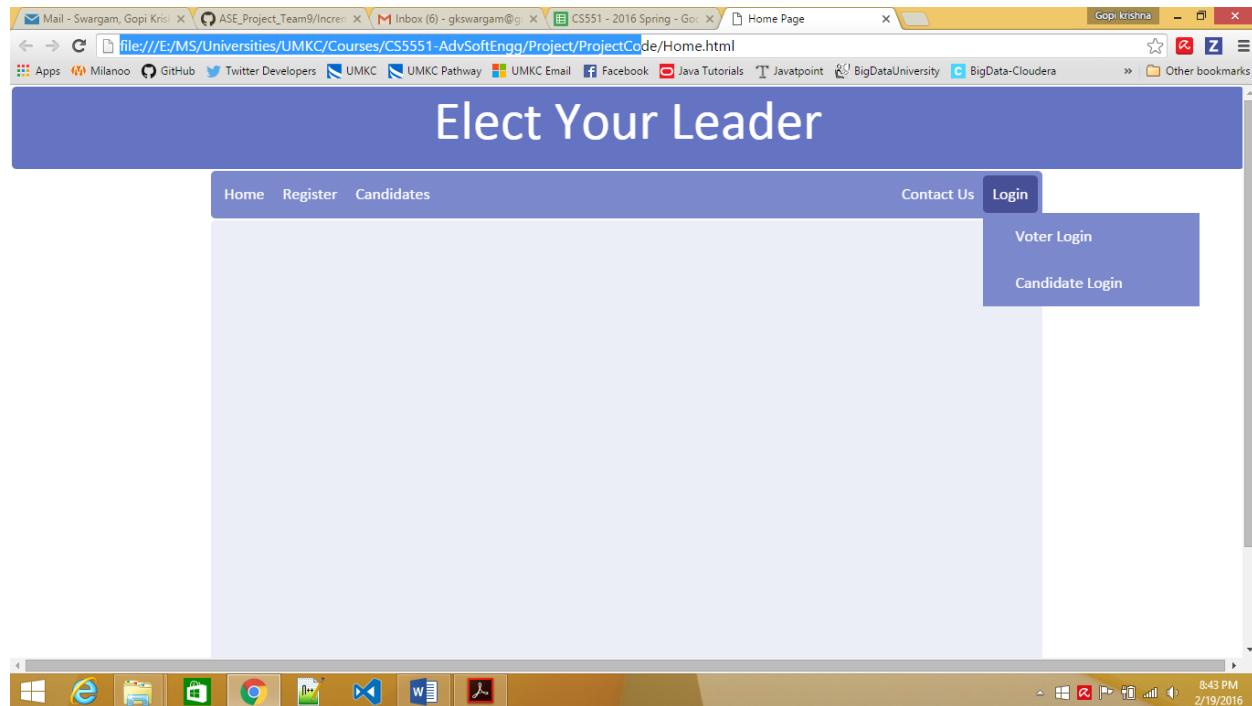
## Testing

All the user interfaces are developed and tested by opening them through browsers. Code for the user interfaces is uploaded at below link

[https://github.com/gkswargam/ASE\\_Project\\_Team9/tree/master/Increment1/Source](https://github.com/gkswargam/ASE_Project_Team9/tree/master/Increment1/Source)

Below are the screenshots for testing through browser





The screenshot shows a web browser window with multiple tabs open at the top. The active tab is titled "Candidate Login Page". The main content area features a blue header bar with the text "Elect Your Leader". Below this is a navigation bar with links for "Home", "Register", "Candidates", "Contact Us", and "Login". The central part of the page is a "Candidate Login" form containing fields for "Username" and "Password", a "Forgot Password" link, and a "Login" button.

The screenshot shows a web browser window with multiple tabs open at the top. The active tab is titled "Voter Registration Page". The main content area features a blue header bar with the text "Elect Your Leader". Below this is a navigation bar with links for "Home", "Register", "Candidates", "Contact Us", and "Login". The central part of the page is a "Voter Registration Page" form containing fields for "First Name", "Last Name", "Unique Id", "Date of Birth", "Email Id", "Password", and "Re-Enter Password", along with "Register" and "Reset" buttons.

The screenshot shows a web application titled "Elect Your Leader" for candidate registration. The form includes fields for personal information (First Name, Last Name, Unique Id, Date of Birth, Email Id, Password, Re-Enter Password), education details (High School, Under Graduation, Graduation), and employment details (Employer1, Employer2, Employer3). Navigation links at the top allow users to Home, Register, Candidates, Contact Us, or Log in. The browser's address bar shows the local file path. The taskbar at the bottom shows various open applications like Mail, Google, and Java Tutorials.

## Implementation

All the user interfaces are developed using html and css.

## Deployment

All the user interfaces developed are working as expected through browsers, but did not deploy to any server, will deploy in Increment2 along with functionality features.

All the artifacts for Increment1 are at below link

[https://github.com/gkswargam/ASE\\_Project\\_Team9/tree/master/Increment1](https://github.com/gkswargam/ASE_Project_Team9/tree/master/Increment1)

## Project Management

### Work Completed

- **Description**

In Increment1 we have developed user interfaces required for the project.

- **Responsibility**

(1) Draw layouts on board	Alsofyani,Mohannad Eida M, JyothiKiran Nandanamudi
(2) Team meeting for finalizing user interface	All
(3) Draw wireframes for user interfaces	Sidrah Junaid, Gopi Krishna Swargam
(4) Develop user interfaces for the wireframes	All

- **Time taken**

20 hours

- **Contributions**

(1) Gopi Krishna Swargam	25%
(2) Nandanamudi Jyothikiran	25%
(3) Sidrah Junaid	25%

(4) Alsofyani,Mohannad Eida M 25%

**Bibliography**

<http://www.w3schools.com/>

<http://www.tutorialrepublic.com/>

# **Second Increment Report**

## **Project Second Increment Report**

### **V. 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 asses 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.

### **VI. 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 asses 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.

## VII. 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.

## VIII. Existing Services/API

Did not use any APIs or existing services for Increment2

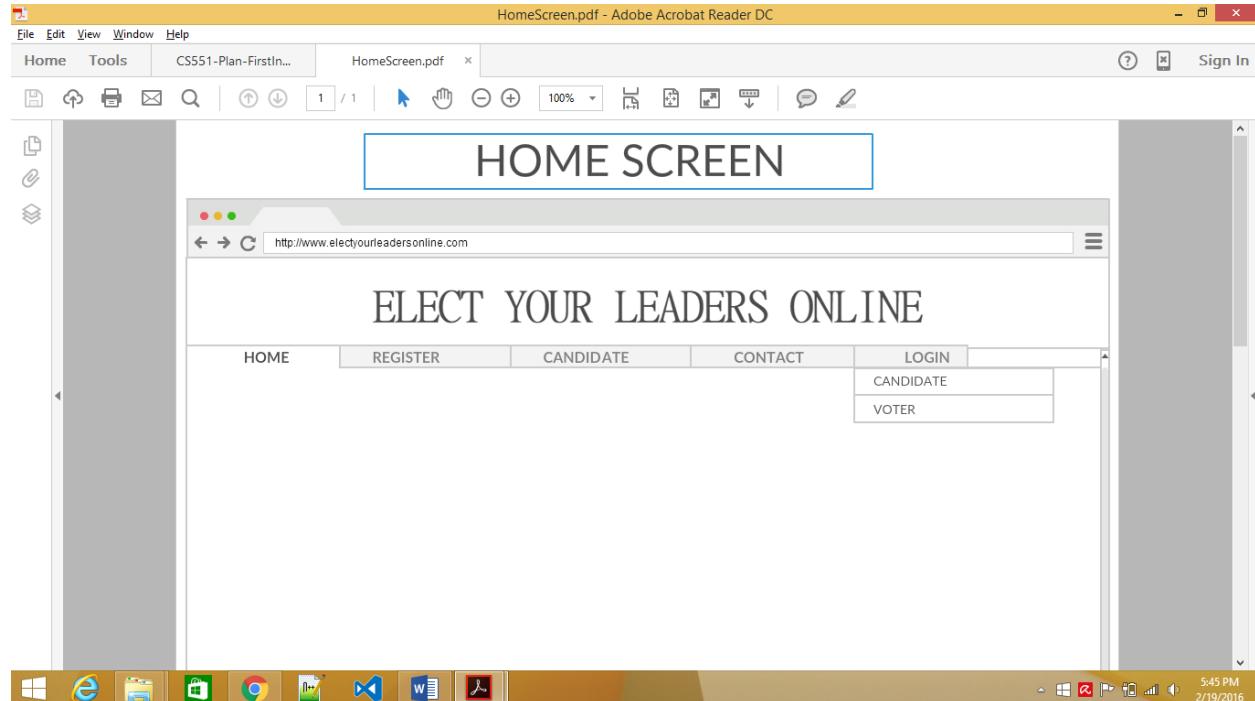
## IX. Detail Design of Features (using tools)

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

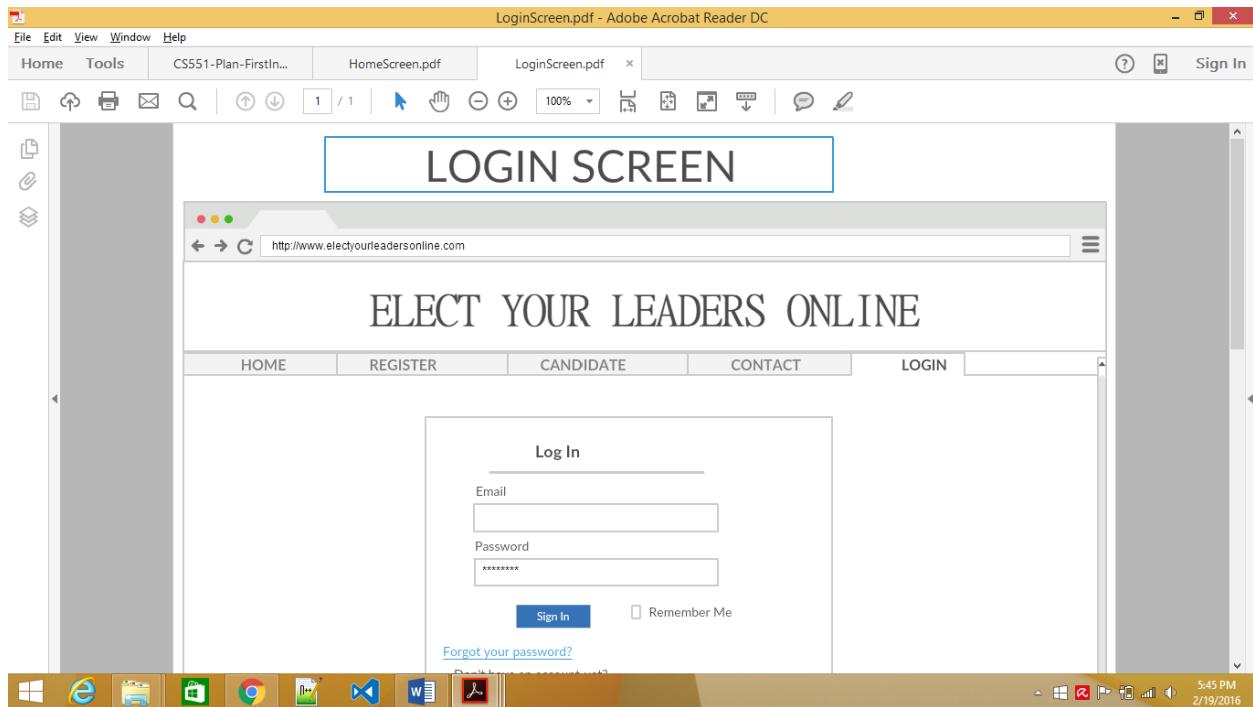
[https://github.com/gkswargam/ASE\\_Project\\_Team9/tree/master/Increment2/Documentation/Project\\_Wireframes](https://github.com/gkswargam/ASE_Project_Team9/tree/master/Increment2/Documentation/Project_Wireframes)

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

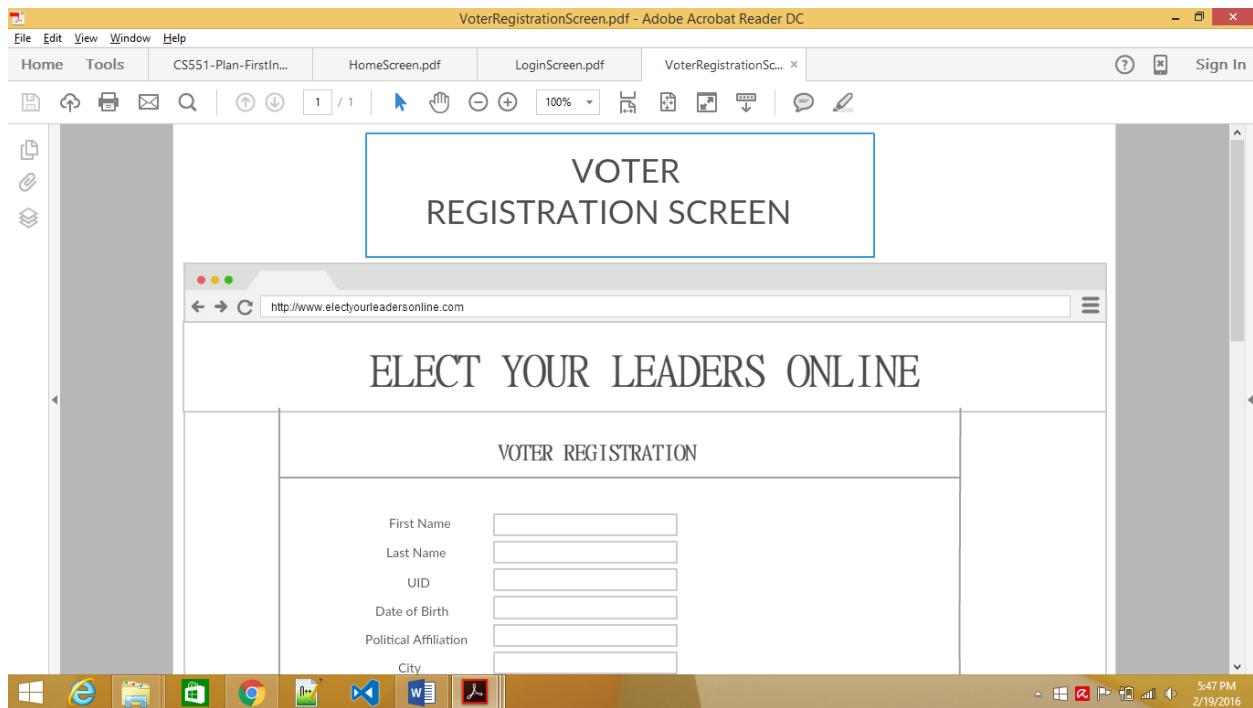
Home Screen



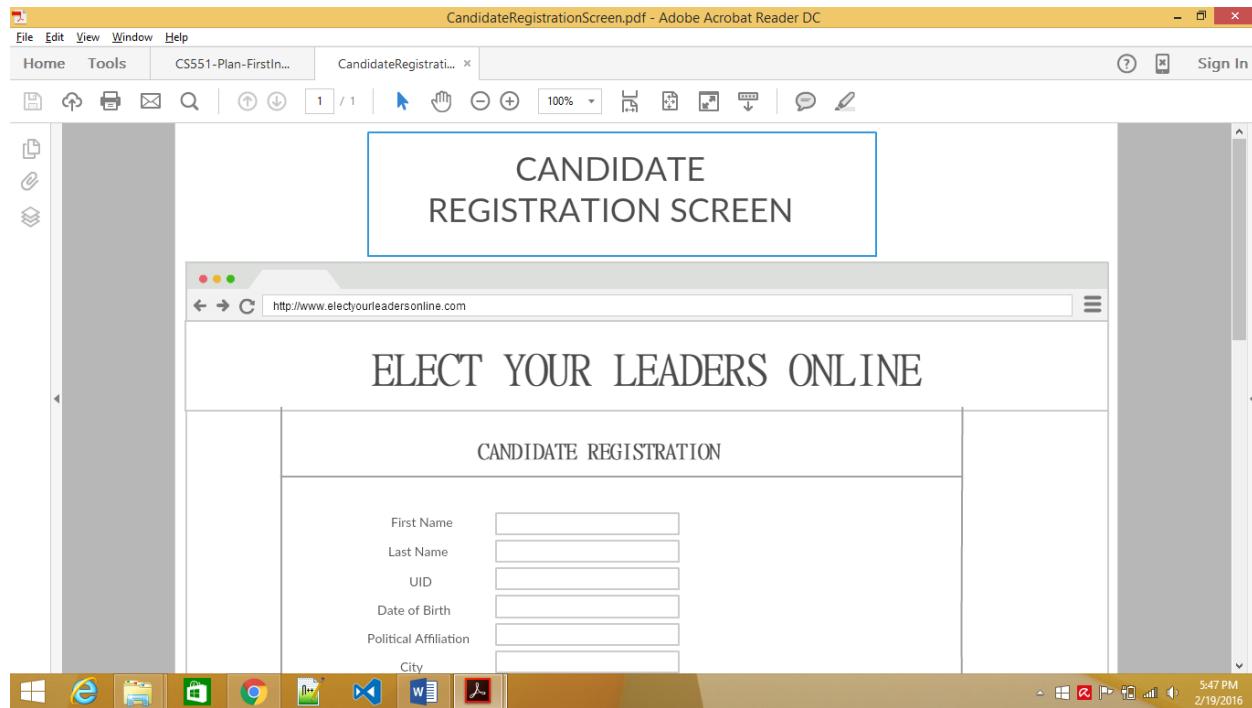
## Login Screen



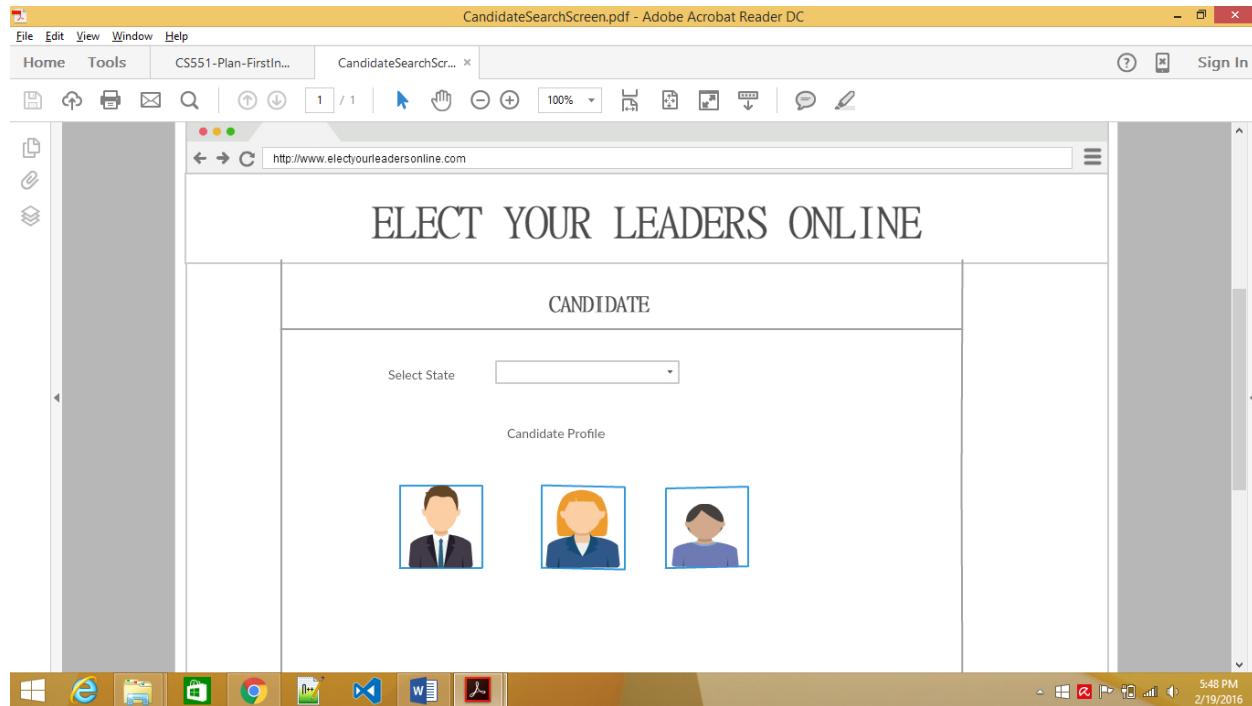
## Voter Registration Screen



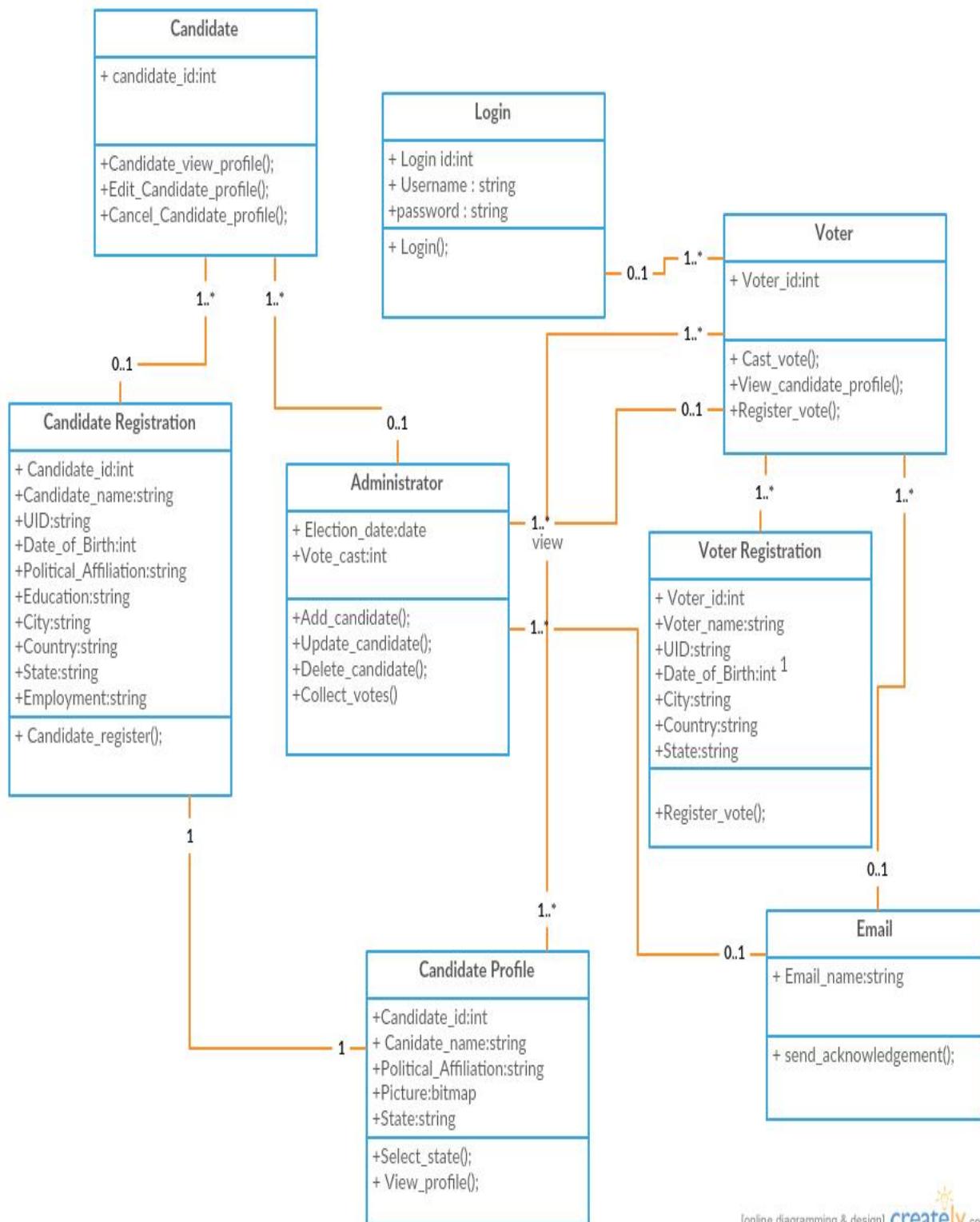
## Candidate Registration Screen

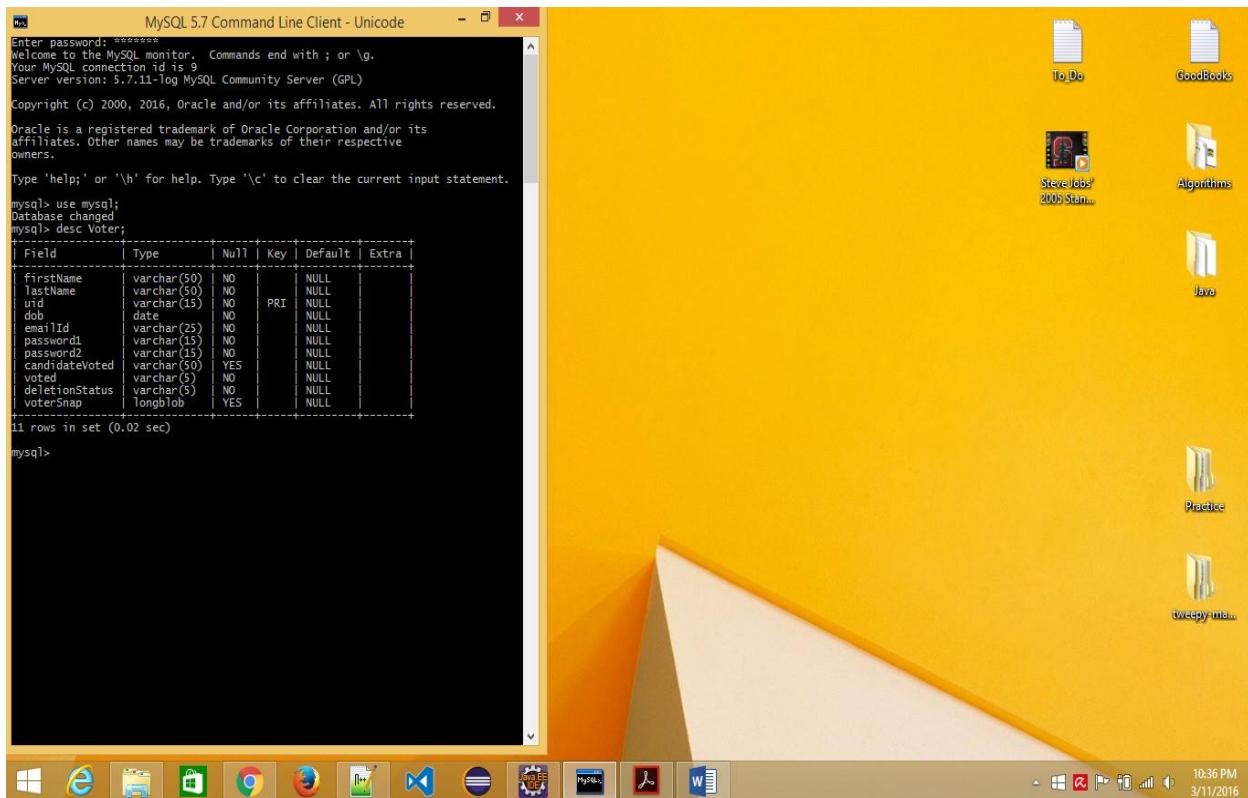
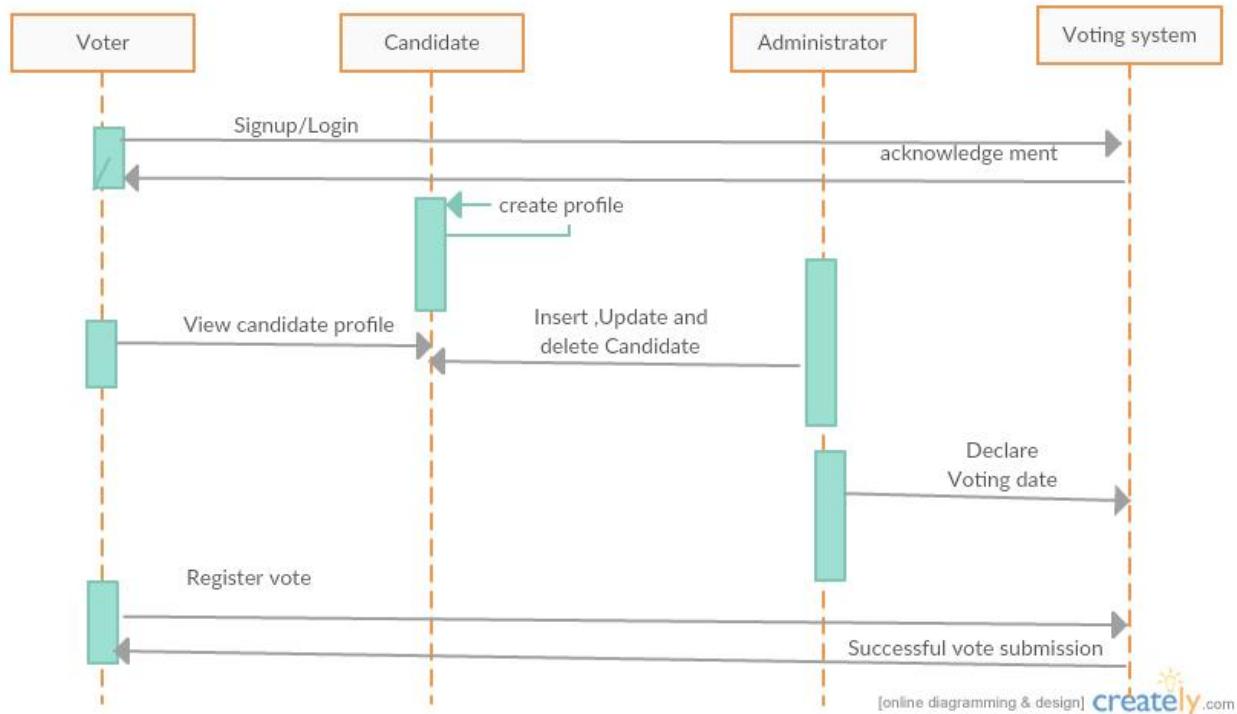


## Candidate Search Screen



Below are class diagrams, sequence diagrams and database descriptions:





```

MySQL 5.7 Command Line Client - Unicode

mysql> desc Candidate;
+-----+-----+-----+-----+-----+
| 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    |             |
| highSchoolName | varchar(50) | YES  |     | NULL    |             |
| underGradSchoolName | varchar(50) | YES  |     | NULL    |             |
| underGradPassingOutYear | varchar(20) | YES  |     | NULL    |             |
| gradSchoolName  | varchar(50) | YES  |     | NULL    |             |
| gradPassingOutYear | varchar(20) | YES  |     | NULL    |             |
| employer1       | varchar(50) | YES  |     | NULL    |             |
| employerYear1   | varchar(20) | YES  |     | NULL    |             |
| employer2       | varchar(50) | YES  |     | NULL    |             |
| employerYear2   | varchar(20) | YES  |     | NULL    |             |
| employer3       | varchar(50) | YES  |     | NULL    |             |
| employerYear3   | varchar(20) | YES  |     | NULL    |             |
| deletionStatus  | varchar(5)  | NO   |     | NULL    |             |
| candidateSnap   | longblob | YES  |     | NULL    |             |
+-----+-----+-----+-----+-----+
21 rows in set (0.01 sec)

mysql>

```

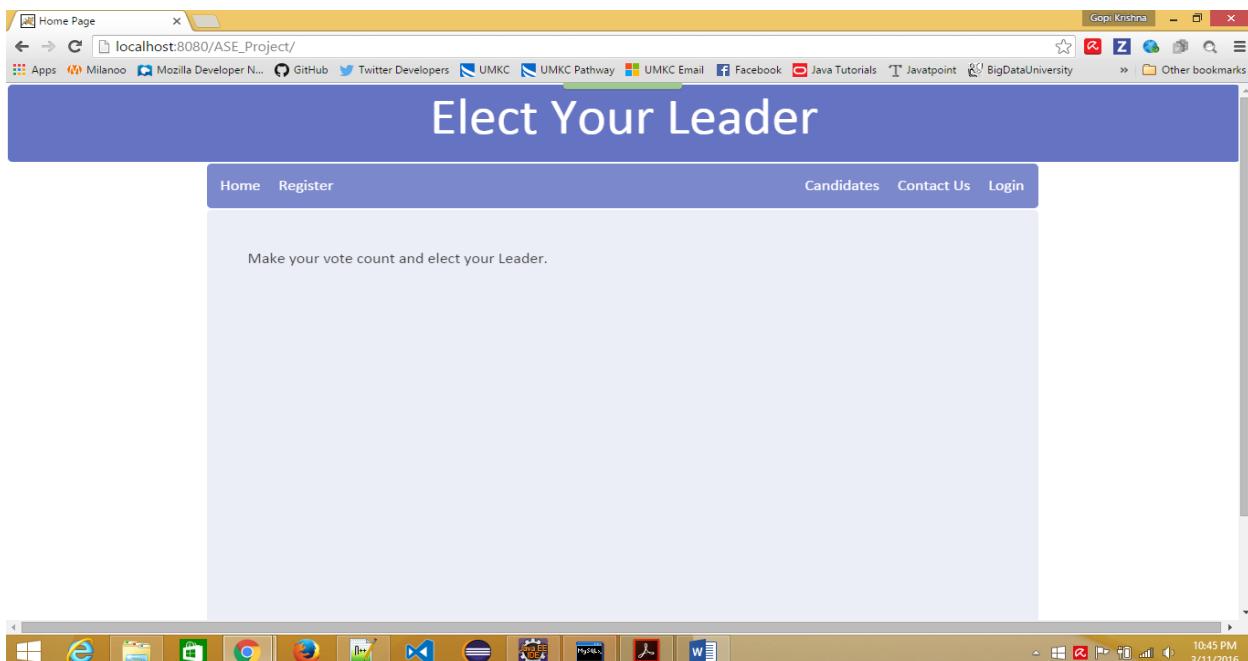
## X. Testing

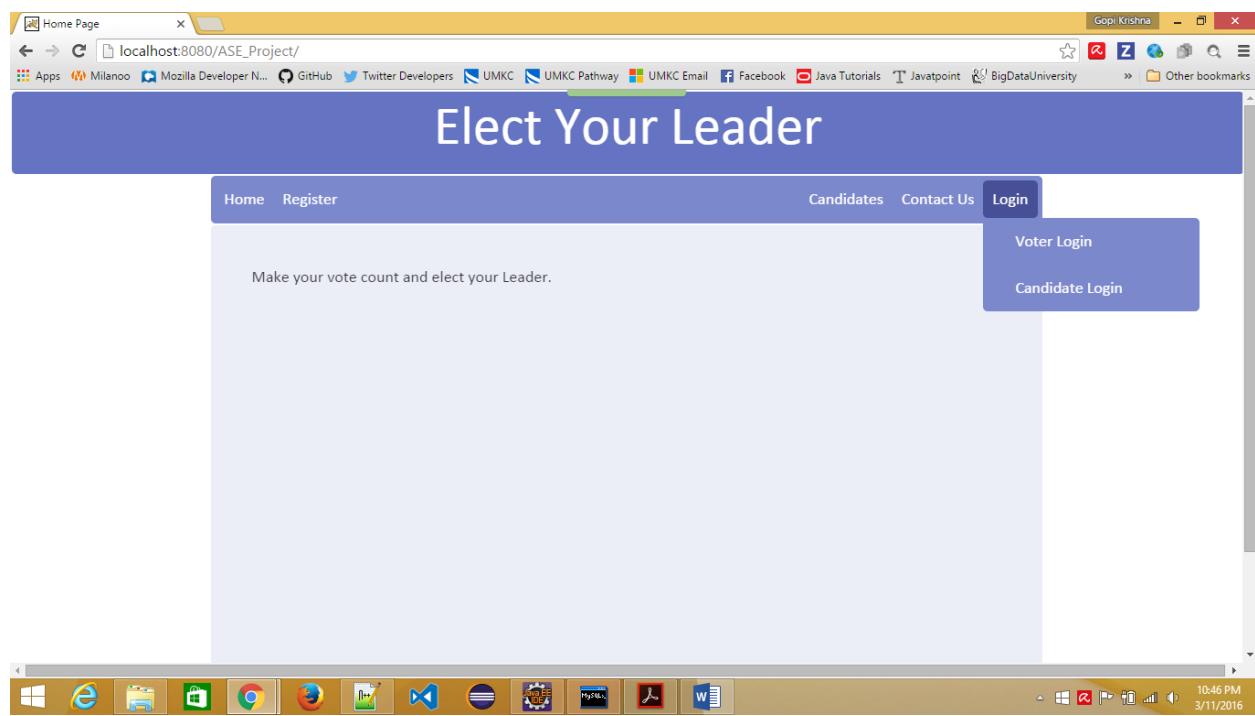
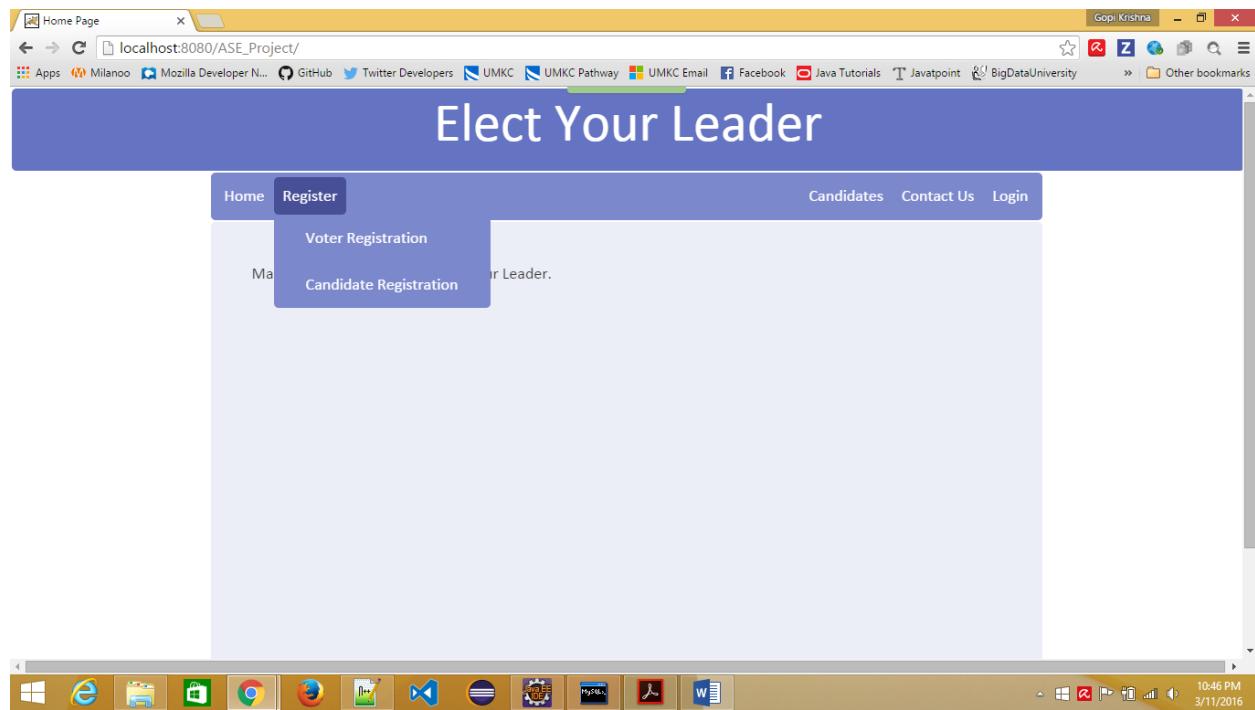
All the user interfaces, validations and database connection are tested by deploying them to tomcat server through Eclipse IDE. Complete code after Increment2 is available at below link in GitHub:

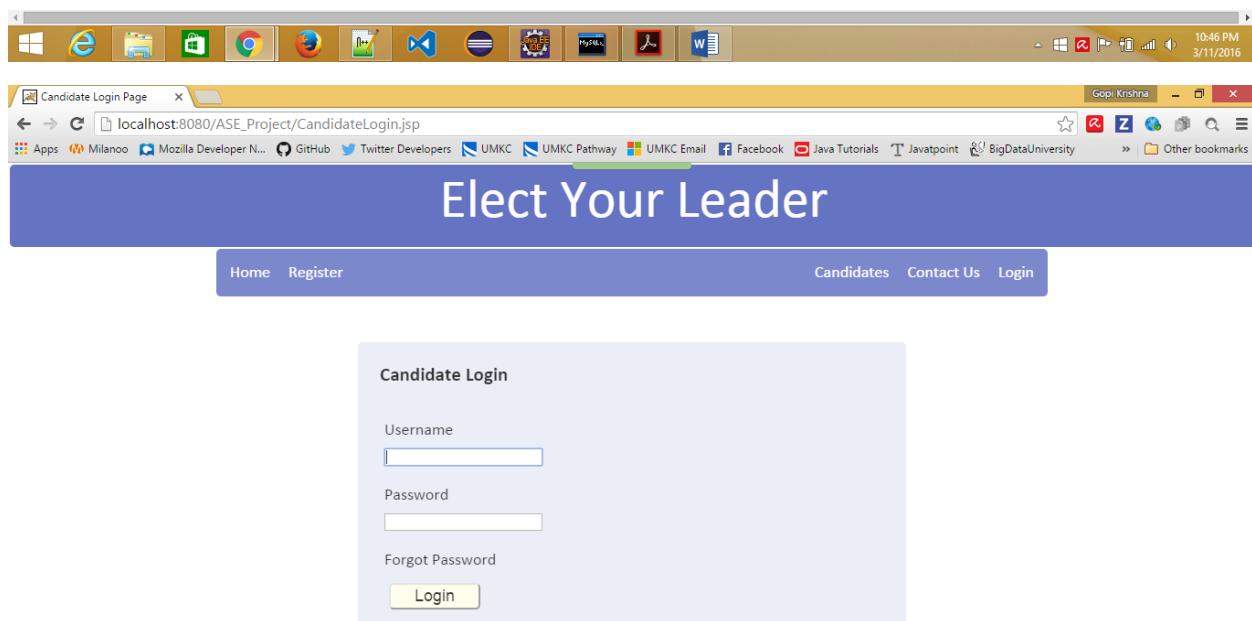
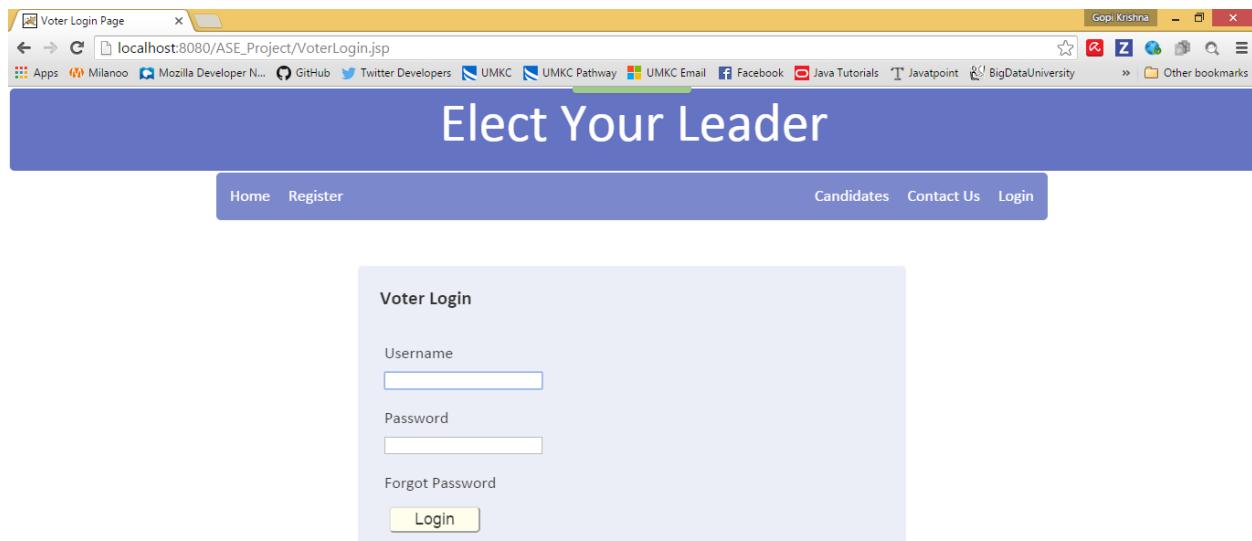
[https://github.com/gkswargam/ASE\\_Project\\_Team9/tree/master/Increment2/Source](https://github.com/gkswargam/ASE_Project_Team9/tree/master/Increment2/Source)

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

User Interfaces:







Voter Registration Page

localhost:8080/ASE\_Project/VoterRegistration.jsp

Home Register Candidates Contact Us Login

## Elect Your Leader

### Voter Registration Page

First Name

Last Name

Unique Id

Date of Birth  mm/dd/yyyy

Email Id

Password

Re-Enter Password

Candidate Registration Page

localhost:8080/ASE\_Project/CandidateRegistration.jsp

Home Register Candidates Contact Us Login

### Candidate Registration Page

First Name

Last Name

Unique Id

Date of Birth  mm/dd/yyyy

Email Id

Password

Re-Enter Password

**Education Details**

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

**Employment Details**

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

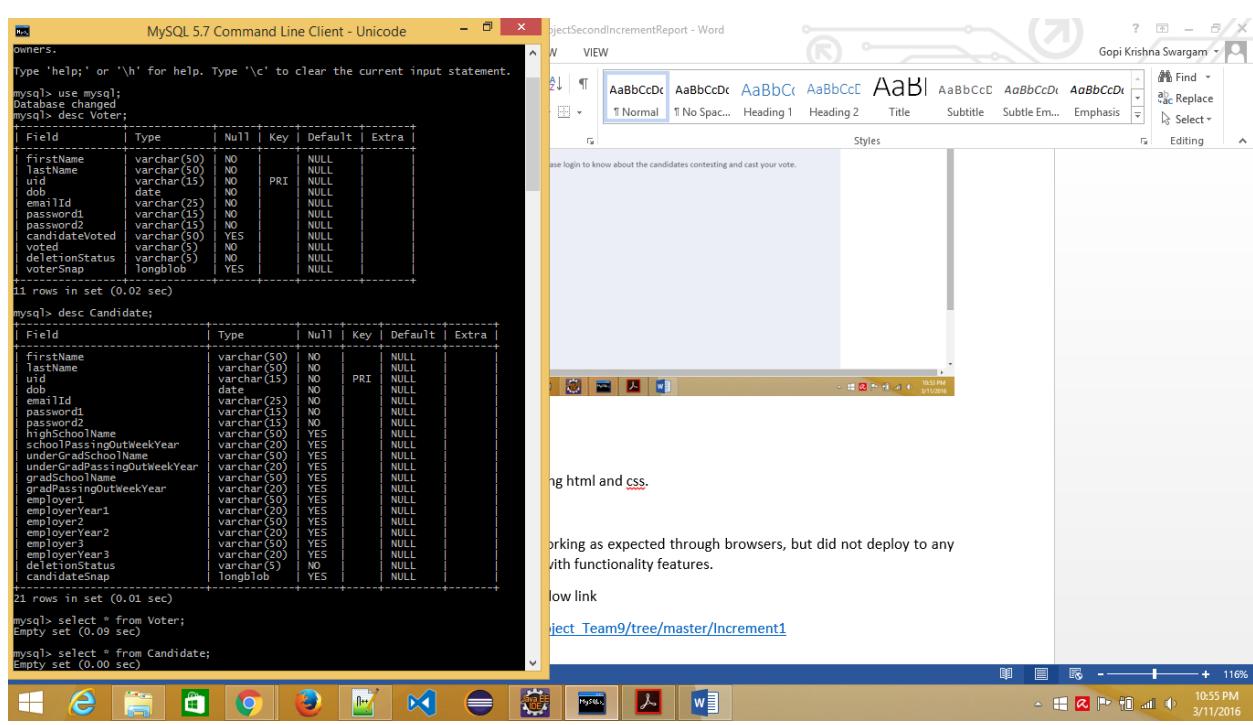
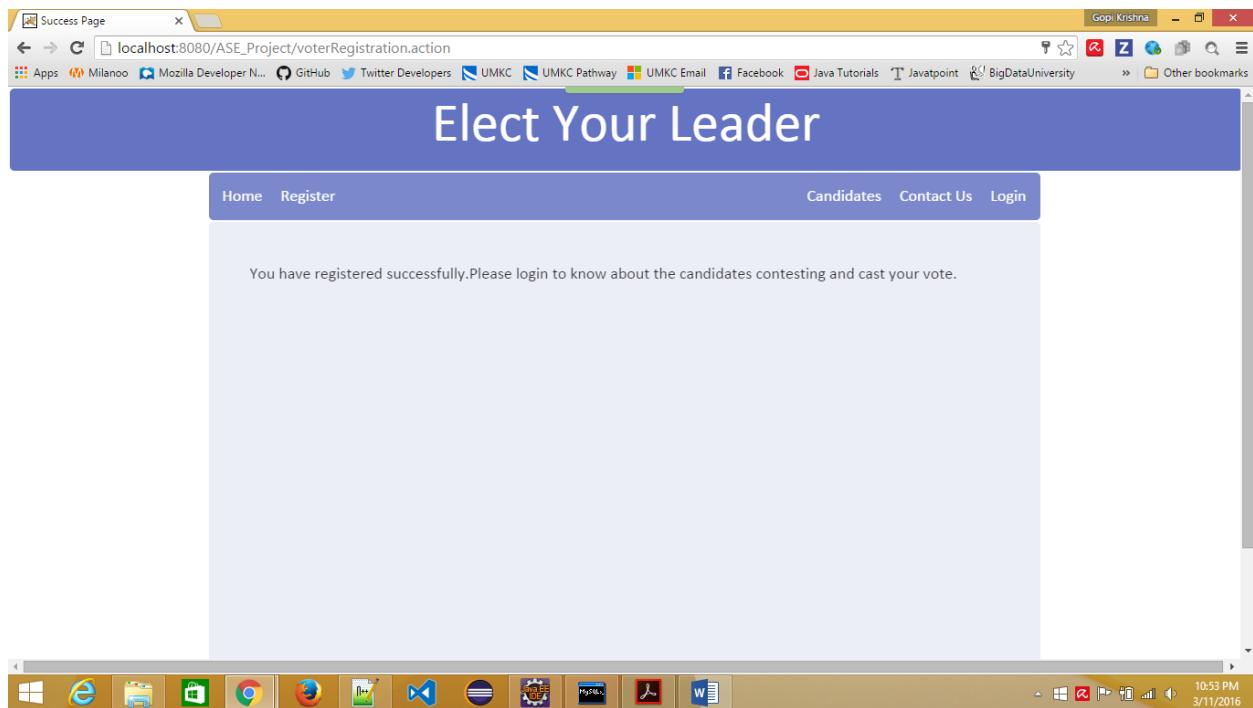
## Validations:

The screenshot displays two instances of a web browser window titled "Voter Registration Page" from the URL [localhost:8080/ASE\\_Project/VoterRegistration.jsp](http://localhost:8080/ASE_Project/VoterRegistration.jsp). The browser's address bar also shows [localhost:8080/ASE\\_Project/voterRegistration.action](http://localhost:8080/ASE_Project/voterRegistration.action).

The top window shows successful data entry for fields: First Name (Gopi), Last Name (Krishna), Unique Id (SSN007), Date of Birth (03/02/2016), Email Id (hidden), Password (hidden), and Re-Enter Password (hidden). The "Submit" button is visible.

The bottom window shows validation errors for the same fields. The "Password" field has an error message: "password and re-entered password are not equal". The "Re-Enter Password" field also has the same error message. Both the "Submit" and "Reset" buttons are visible.

The operating system taskbar at the bottom of both screenshots shows various application icons and the date/time (3/11/2016, 10:49 PM).



## **XI. 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.

## **XII. 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](https://github.com/gkswargam/ASE_Project_Team9/tree/master/Increment2)

## **XIII. 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**

(5) Created database tables	Alsofyani,Mohannad Eida M
(6) Worked on encrypting form fields	JyothiKiran Nandanamudi
(7) Draw class diagrams and sequence diagrams	Sidrah Junaid,
(8) Work on form validation	Gopi Krishna Swargam

- Time taken**

70 hours

- Contributions**

(5) Gopi Krishna Swargam	25%
(6) Nandanamudi Jyothikiran	25%
(7) Sidrah Junaid	25%
(8) Alsofyani,Mohannad Eida M	25%

## **Bibliography**

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

# **Third Increment Report**

## **Project Third Increment Report**

### **XIV. 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 asses 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.

### **XV. 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 asses 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.

## XVI. Features

We have developed the following features for your project:

4. Developed all the user interfaces required for the project.
5. Written validations code for all the data that is being passed to the database.
6. Created the database tables required for the project.
7. Inserted the registration data in to database tables.
8. Implemented the login functionality.
9. Implemented the password recovery functionality.
10. Read data from database and displayed.

## XVII. Existing Services/API

Did not use any APIs or existing services for Increment3

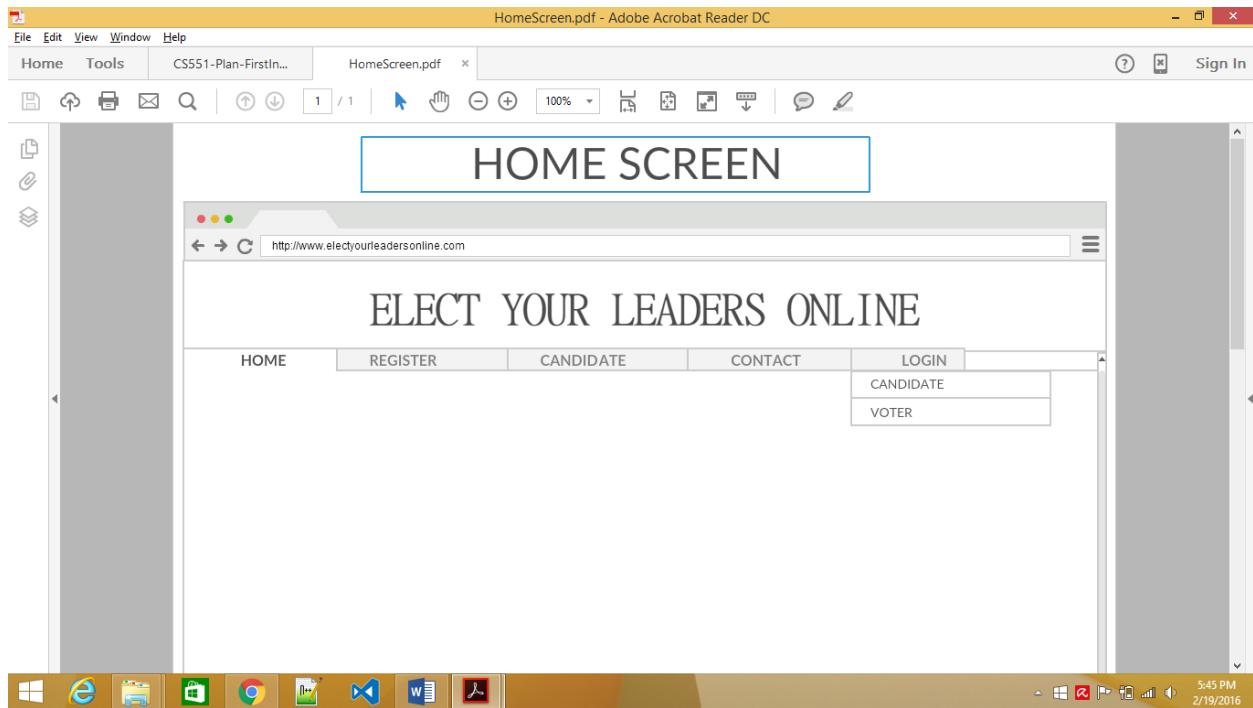
## XVIII. Detail Design of Features (using tools)

All the wireframes, class diagrams, sequence diagrams developed in Increment3 are at below link

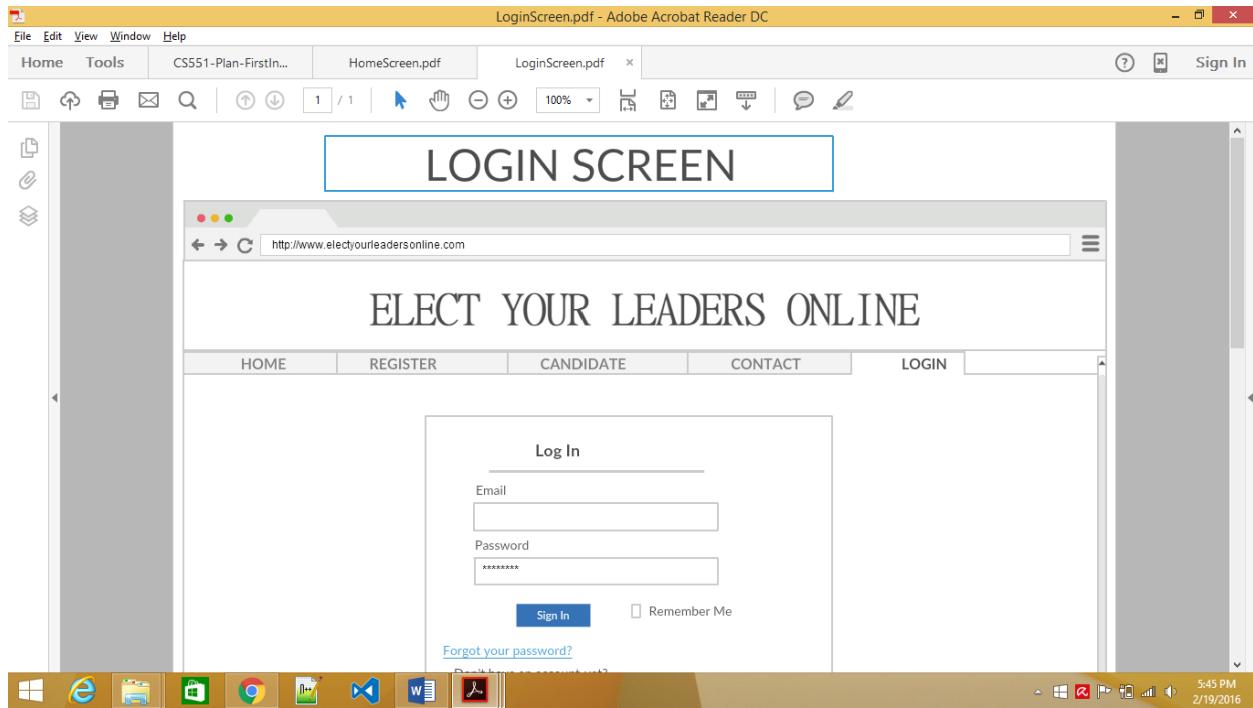
[https://github.com/gkswargam/ASE\\_Project\\_Team9/tree/master/Increment3/Documentation/Project\\_Wireframes](https://github.com/gkswargam/ASE_Project_Team9/tree/master/Increment3/Documentation/Project_Wireframes)

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

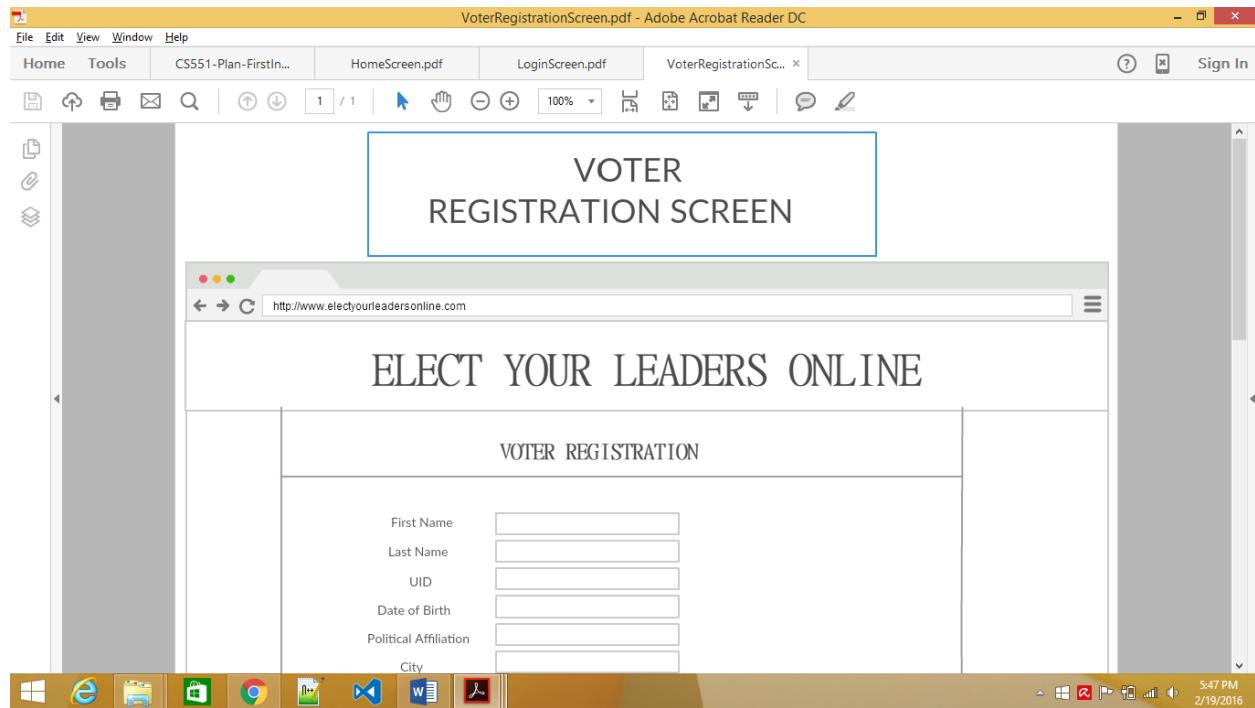
## Home Screen



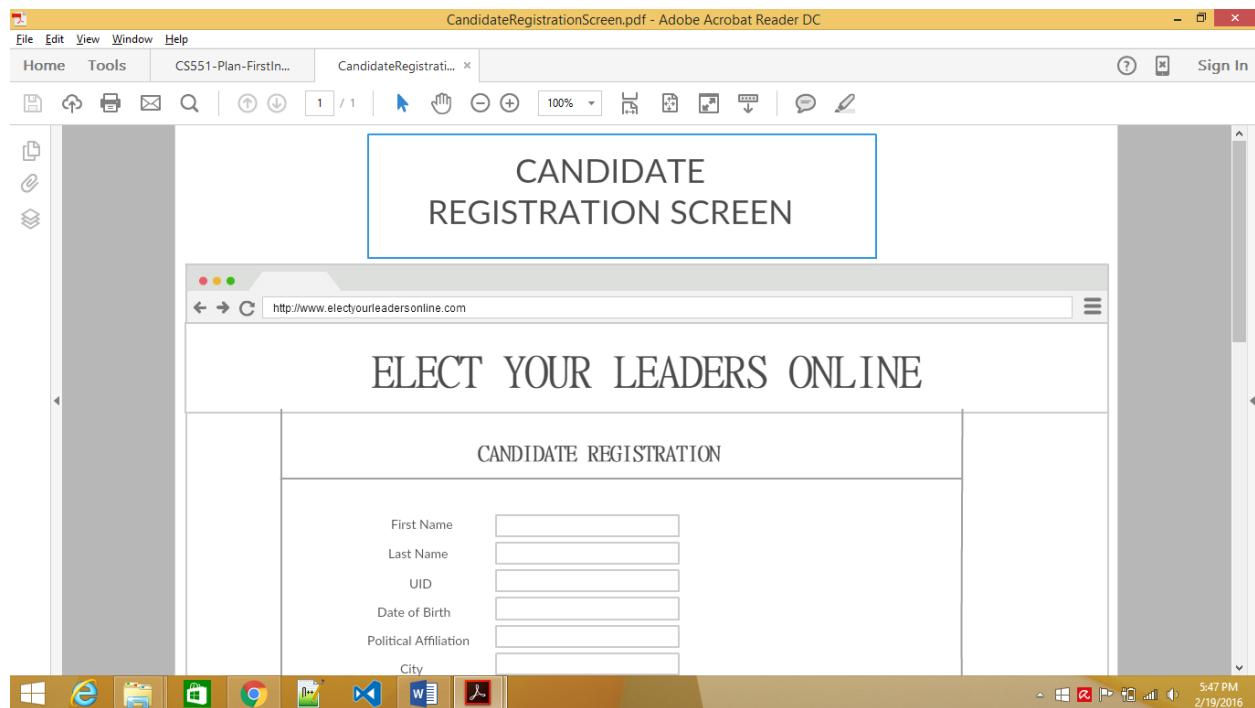
## Login Screen



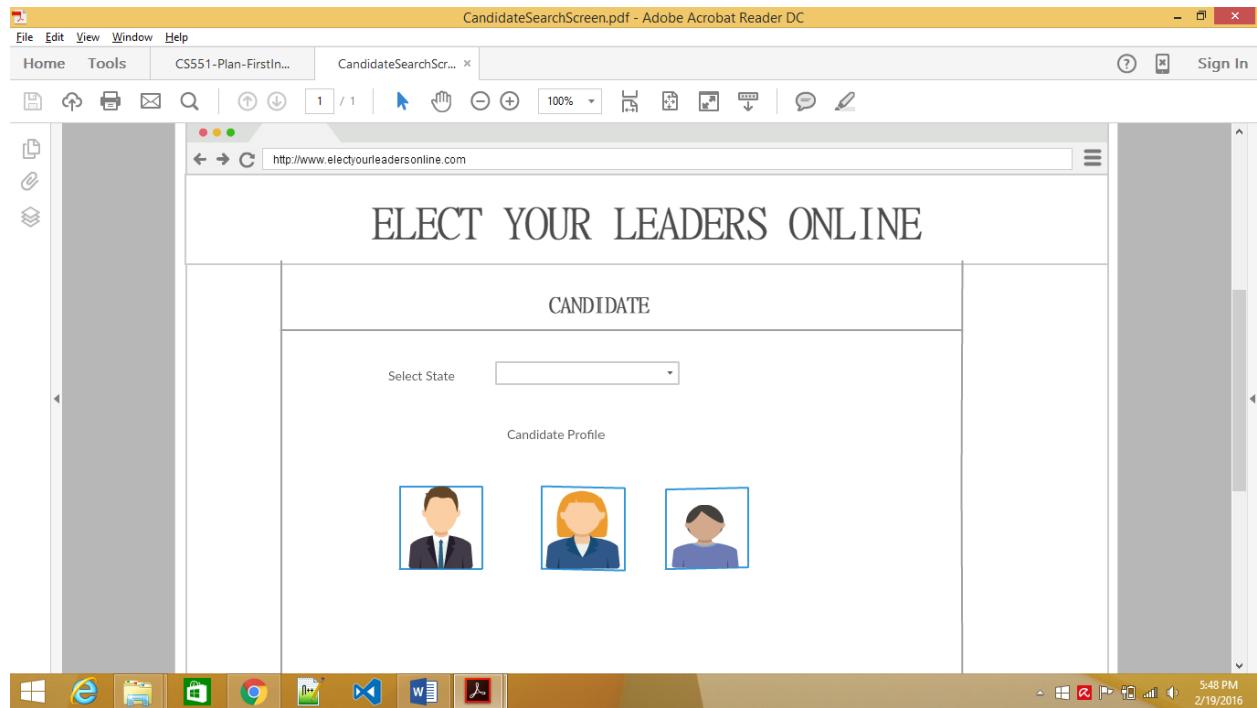
## Voter Registration Screen



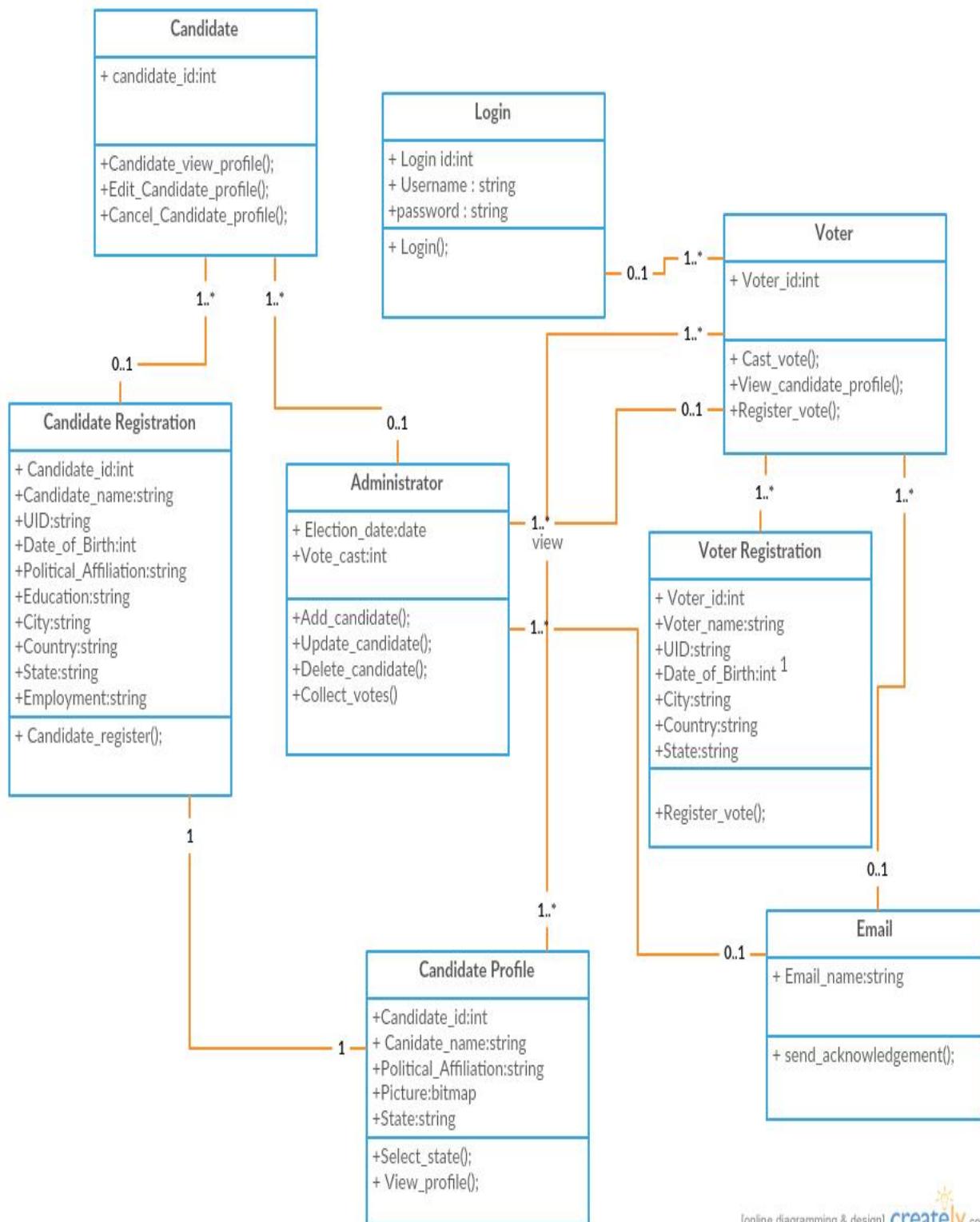
## Candidate Registration Screen

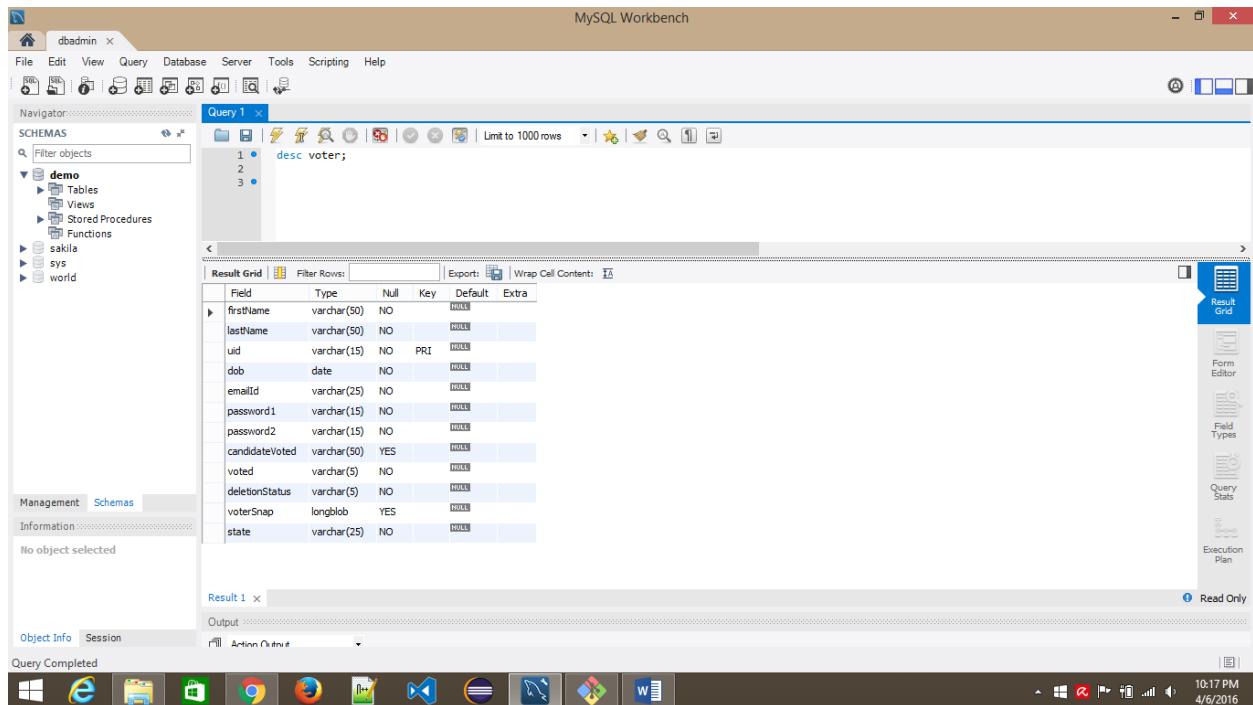
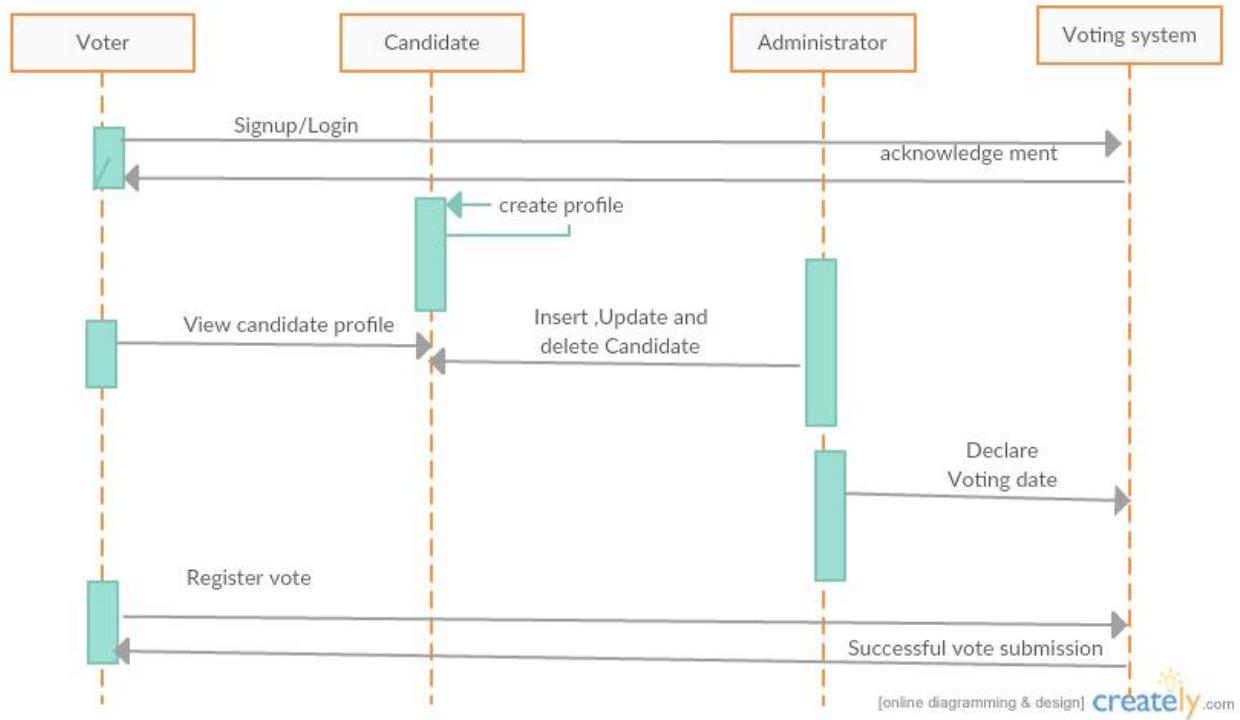


## Candidate Search Screen



Below are class diagrams, sequence diagrams and database descriptions:





The screenshot shows the MySQL Workbench interface with the 'dbadmin' connection selected. In the Navigator pane, under the 'demo' schema, the 'Tables' node is expanded, and the 'candidate' table is selected. The main area displays the table structure in a grid format:

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	
highSchoolName	varchar(50)	YES		NULL	
schoolPassingOutWeekYear	varchar(20)	YES		NULL	
underGradSchoolName	varchar(50)	YES		NULL	
underGradPassingOutWee...	varchar(20)	YES		NULL	
gradSchoolName	varchar(50)	YES		NULL	
gradPassingOutWeekYear	varchar(20)	YES		NULL	
employer1	varchar(50)	YES		NULL	
employerYear1	varchar(20)	YES		NULL	
employer2	varchar(50)	YES		NULL	
employerYear2	varchar(20)	YES		NULL	

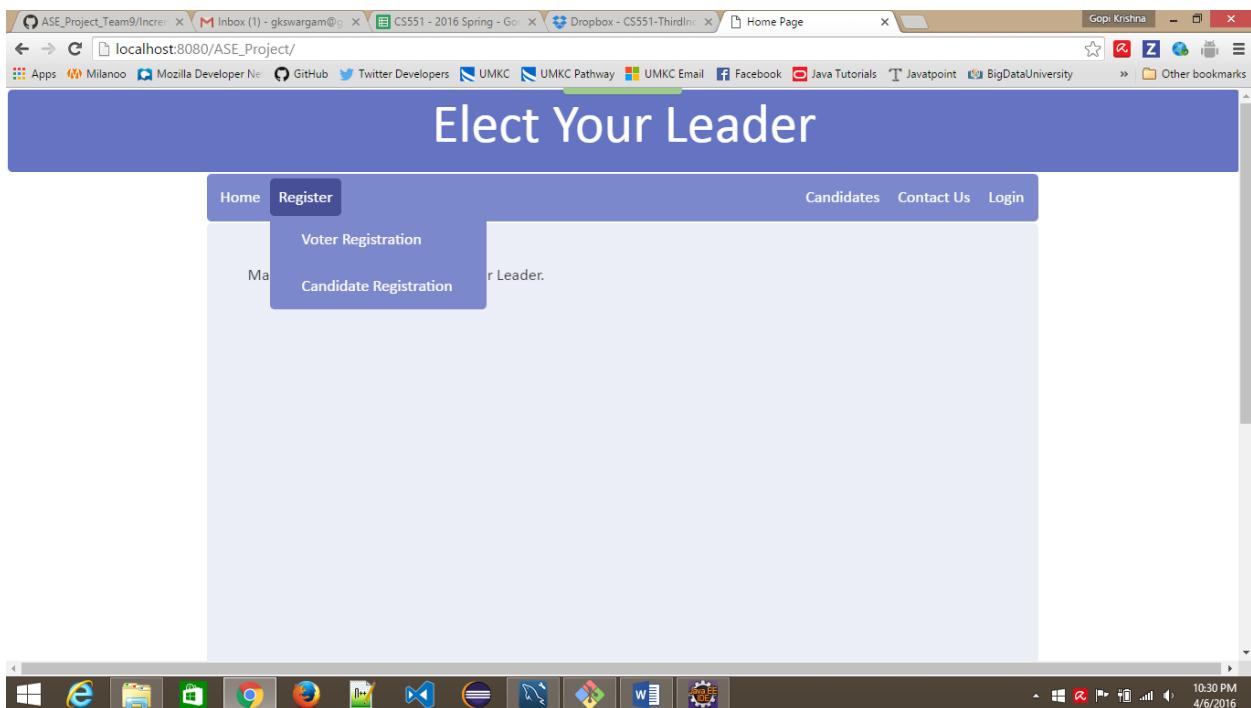
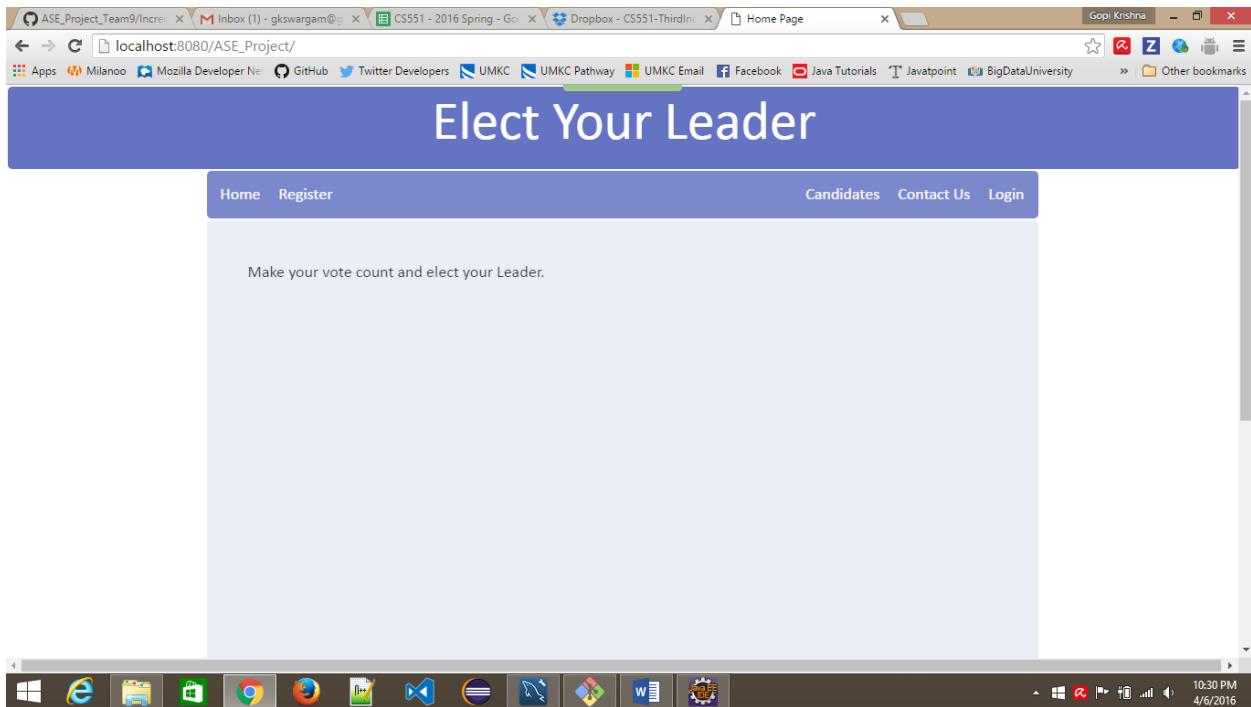
## XIX. Testing

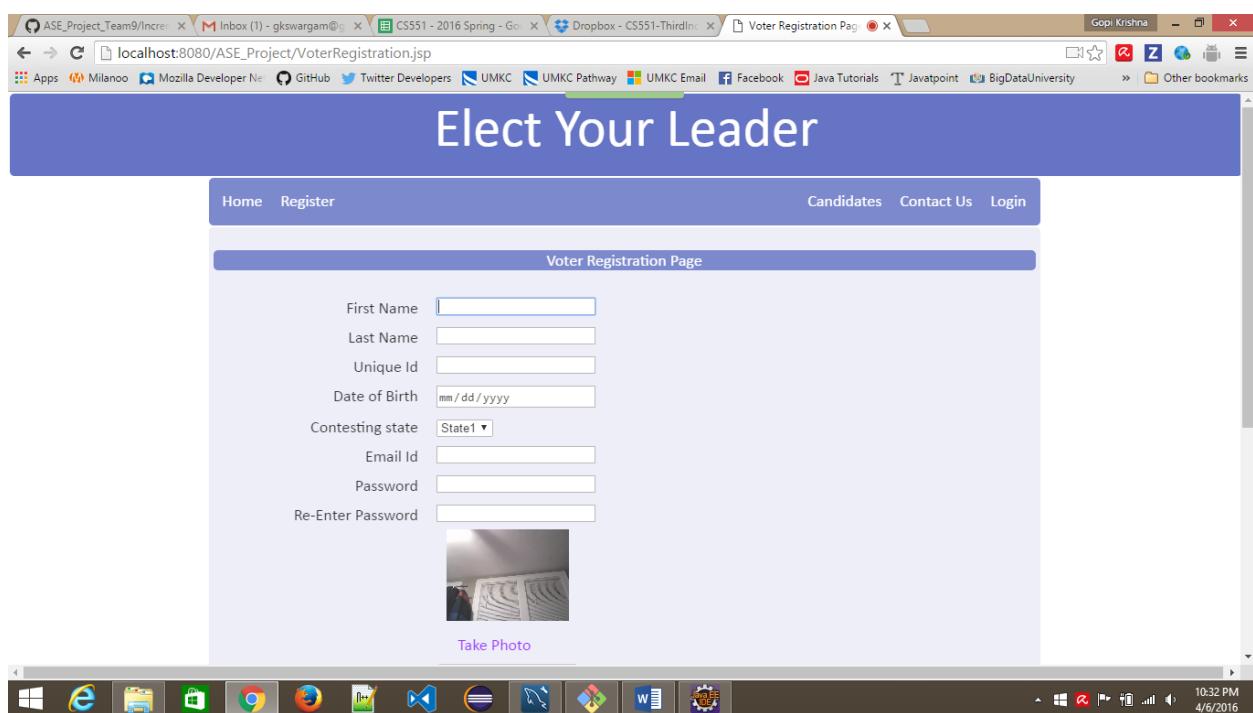
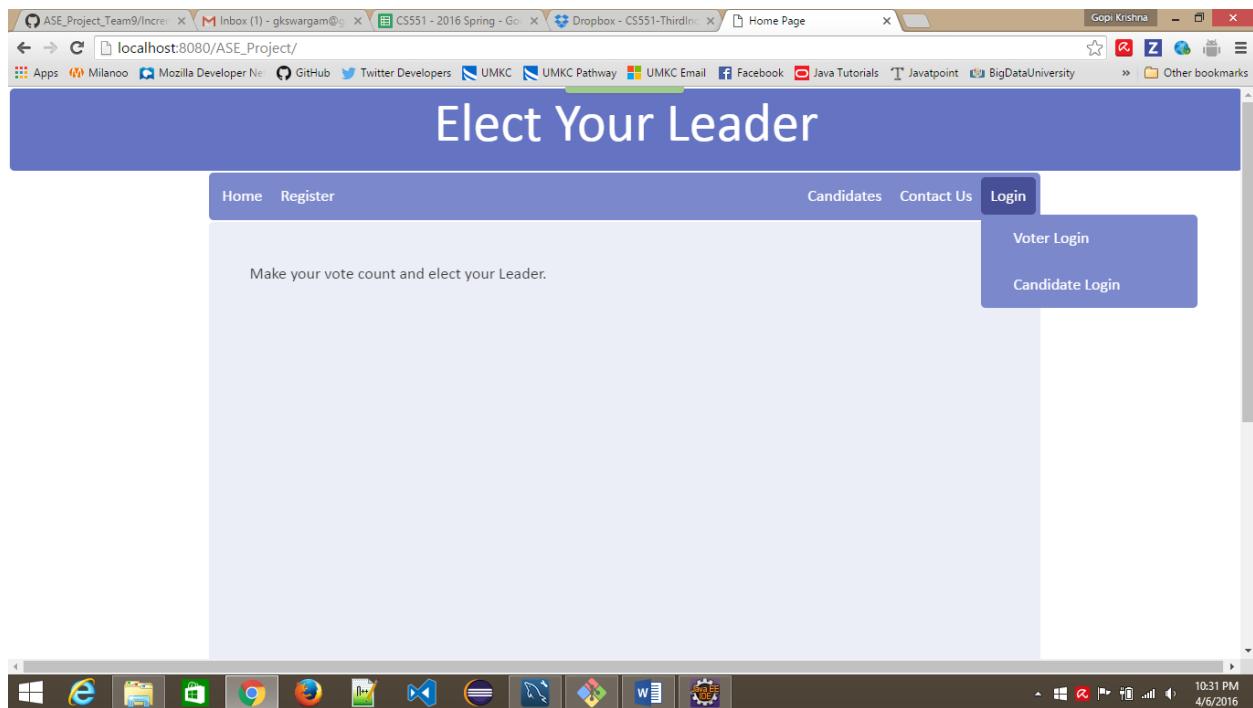
All the user interfaces, validations, database connections, data insertions, login functionality, password recovery functionality, reading data and database tables are tested by deploying them to tomcat server through Eclipse IDE. Complete code after Increment3 is available at below link in GitHub:

[https://github.com/gkswargam/ASE\\_Project\\_Team9/tree/master/Increment3/Source](https://github.com/gkswargam/ASE_Project_Team9/tree/master/Increment3/Source)

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

User Interfaces:





Screenshot of a web browser showing the "Candidate Registration Page".

The title bar reads "localhost:8080/ASE\_Project/CandidateRegistration.jsp".

The main content area has a blue header "Elect Your Leader".

Navigation links include Home, Register, Candidates, Contact Us, and Login.

The form fields are:

- First Name:
- Last Name:
- Unique Id:
- Date of Birth:  mm / dd / yyyy
- Contesting state:  State1
- Email Id:
- Password:
- Re-Enter Password:

Education Details:

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

Employment Details: [This section is partially visible at the bottom]

System status bar shows: 10:32 PM 4/6/2016

Screenshot of a web browser showing the "Voter Login Page".

The title bar reads "localhost:8080/ASE\_Project/VoterLogin.jsp".

The main content area has a blue header "Elect Your Leader".

Navigation links include Home, Register, Candidates, Contact Us, and Login.

The form fields are:

Voter Login

- Username:
- Password:
- [Forgot Password](#)
- 



Screenshot of a web browser showing the "Candidate Login Page".

The title bar shows the URL: `localhost:8080/ASE_Project/CandidateLogin.jsp`. The page header features a blue banner with the text "Elect Your Leader". Below the banner is a navigation menu with links: Home, Register, Candidates, Contact Us, and Login.

The main content area is titled "Candidate Login" and contains the following fields:

- Username: An input field.
- Password: An input field.
- [Forgot Password](#)
- 



Validations, Data insertions, reading data:

Screenshot of a web browser showing the "Voter Registration Page".

The title bar shows the URL: `localhost:8080/ASE_Project/voterRegistration.action`. The page header features a blue banner with the text "Elect Your Leader". Below the banner is a navigation menu with links: Home, Register, Candidates, Contact Us, and Login.

The main content area is titled "Voter Registration Page" and contains the following form fields:

First Name	<input type="text"/>
Last Name	<input type="text"/>
Unique Id	<input type="text"/>
Date of Birth	<input type="text"/> mm/dd/yyyy
Contesting state	<input type="text"/> State1
Email Id	<input type="text"/>
Password	<input type="text"/>
password and re-entered password are not equal	
Re-Enter Password	<input type="text"/>
password and re-entered password are not equal	

A screenshot of a Windows operating system taskbar is visible at the bottom of the screen, showing a similar set of application icons and system status information (10:40 PM, 4/6/2016).

The screenshot shows a web browser window with the title "Voter Login Page". The URL in the address bar is "localhost:8080/ASE\_Project/voterLogin.action". The page has a blue header bar with the text "Elect Your Leader". Below the header is a navigation bar with links for "Home", "Register", "Candidates", "Contact Us", and "Login". The main content area is titled "Voter Login" and contains fields for "Username" and "Password". A message "Username or password is incorrect" is displayed below the password field. There are links for "Forgot Password" and "Login".

The screenshot shows a web browser window with the title "Success Page". The URL in the address bar is "localhost:8080/ASE\_Project/voterRegistration.action". The page has a blue header bar with the text "Elect Your Leader". Below the header is a navigation bar with links for "Home", "Register", "Candidates", "Contact Us", and "Login". The main content area displays the message "You have registered successfully. Please login to know about the candidates contesting and cast your vote.".

MySQL Workbench

File Edit View Query Database Server Tools Scripting Help

Navigator: SCHEMAS Filter objects

demo

- Tables
- Views
- Stored Procedures
- Functions
- sakila
- sys
- world

Query 1

```
1 • select * from voter;
2
3 • truncate voter;
4 •
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content: |

firstName	lastName	uid	dob	emailId	password1	password2	candidateVoted	voted	deletionStatus	voterSnap	state
Gopi Krishna	Swargam	SSN007	1990-06-25	gs446@mail.umkc.edu	12345	12345	NULL	false	false	BLWS	State7
HULL	HULL	HULL	HULL	HULL	HULL	HULL	HULL	HULL	HULL	HULL	HULL
*											

Management Schemas

Information No object selected

voter 5

Object Info Session

Output

Query Completed

10:41 PM 4/6/2016

Inbox (1) - gkswargam@gmail.com CS551 - 2016 Spring - Go... Dropbox - CS551-ThirdIn...

localhost:8080/ASE\_Project/voterLogin.action

Elect Your Leader

Your Registered Details

First Name Gopi Krishna  
 Last Name Swargam  
 Unique Id SSN007  
 Date of Birth 1990-06-25  
 Voting State State7  
 Email Id gs446@mail.umkc.edu

Profile Image 

10:48 PM 4/6/2016

The screenshot shows a web browser window with multiple tabs open at the top. The active tab is titled "localhost:8080/ASE\_Project/ForgotPasswordVoter.jsp". The main content area displays a blue header bar with the text "Elect Your Leader". Below this is a form with a label "Give your registered EmailId below and click on submit, your password will be sent to your email id". The form contains a text input field labeled "EmailId" and a "Submit" button. At the bottom of the page, there is a navigation menu with links for "Home", "Register", "Candidates", "Contact Us", and "Login". The browser's toolbar and taskbar are visible at the bottom, showing various application icons and the system clock.

The screenshot shows an email message in an inbox. The subject line is "Password for Election commission". The message body contains the text "Your password for Elections is 12345". The message was sent by "gkswargam2237@gmail.com" and received by "Swargam, Gopi Krishna (UMKC-Student)". The message has a timestamp of "8:49 PM" and is located in the "Inbox". The Windows taskbar at the bottom shows various application icons and the system clock.

## **XX. 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.

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

## **XXI. Deployment**

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

All the artifacts for Increment3 are at below link

[https://github.com/gkswargam/ASE\\_Project\\_Team9/tree/master/Increment3](https://github.com/gkswargam/ASE_Project_Team9/tree/master/Increment3)

## **XXII. Project Management**

### **Work Completed**

#### **Description**

In Increment3 we have completed the below

- Developed all the user interfaces required for the project.
- Written validations code for all the data that is being passed to the database.
- Created the database tables required for the project.
- Inserted the registration data in to database tables.
- Implemented the login functionality.
- Implemented the password recovery functionality.
- Read data from database and displayed.
- Password encryption and decryption

#### **• Responsibility**

- |   |                           |
|---|---------------------------|
| (9) Email functionality                                 | Alsofyani,Mohannad Eida M |
| (10)Login functionality, password encryption/decryption | JyothiKiran Nandanamudi   |
| (11)Accessing camera plugin and take snapshot           | Sidrah Junaid             |
| (12)Data insertion and reading data                     | Gopi Krishna Swargam      |

#### **• Time taken**

300 hours

#### **• Contributions**

- |                               |     |
|-------------------------------|-----|
| (9) Gopi Krishna Swargam      | 25% |
| (10)Nandanamudi Jyothikiran   | 25% |
| (11)Sidrah Junaid             | 25% |
| (12)Alsofyani,Mohannad Eida M | 25% |

## **Bibliography**

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

# **Fourth Increment Report**

## **Project Fourth Increment Report**

### **XXIII. 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 asses 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.

### **XXIV. 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 asses 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.

## **XXV. Features**

We have developed the following features for your project:

11. Developed all the user interfaces required for the project and improved the styling using CSS.
12. Written validations code for all the entered in user interface forms and the data that is being passed to the database.
13. Created the required database tables required for the project.
14. Implemented voter registration and candidate registration functionality.
15. Inserted the registration data in to database tables.
16. Implemented the login functionality.
17. Implemented the password recovery functionality.
18. Implemented the password encryption and decryption functionality.
19. Read data from database and display it.
20. Implemented the display candidates feature.
21. Implemented the voting functionality for the candidates.
22. Implemented the voting disable feature once voted.

## **XXVI. Existing Services/API**

Did not use any APIs or existing services for Increment4

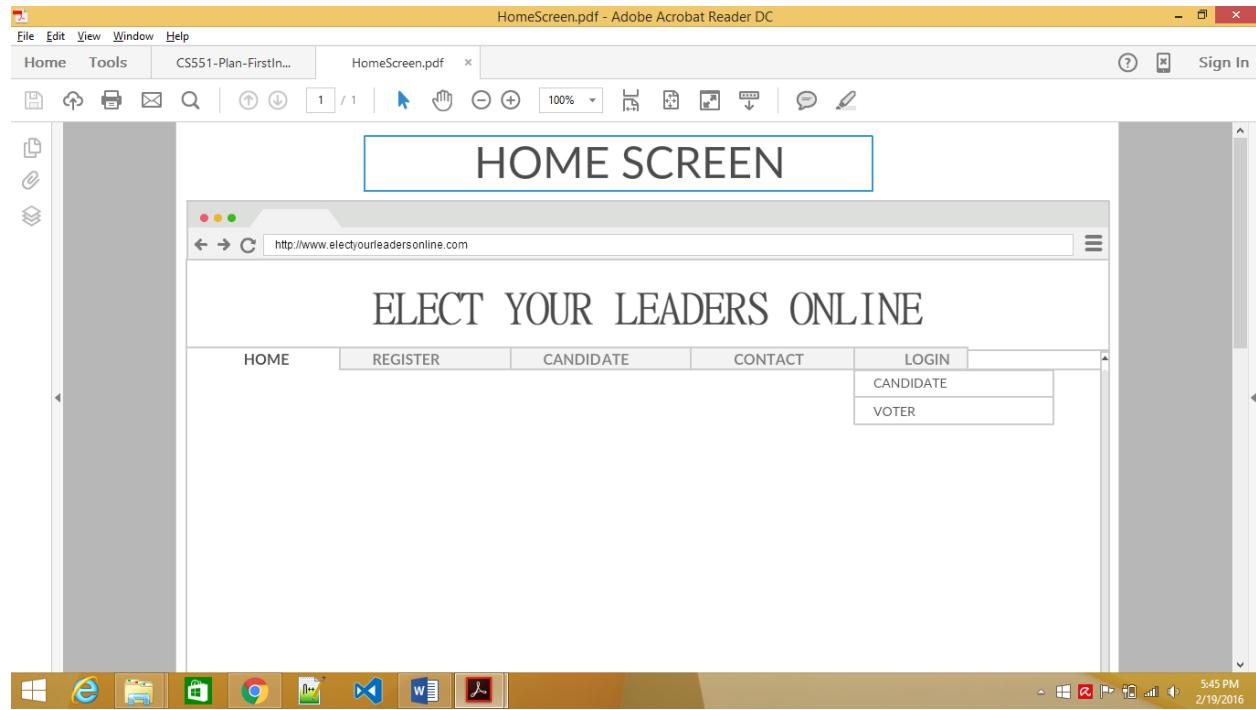
## **XXVII. Detail Design of Features (using tools)**

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

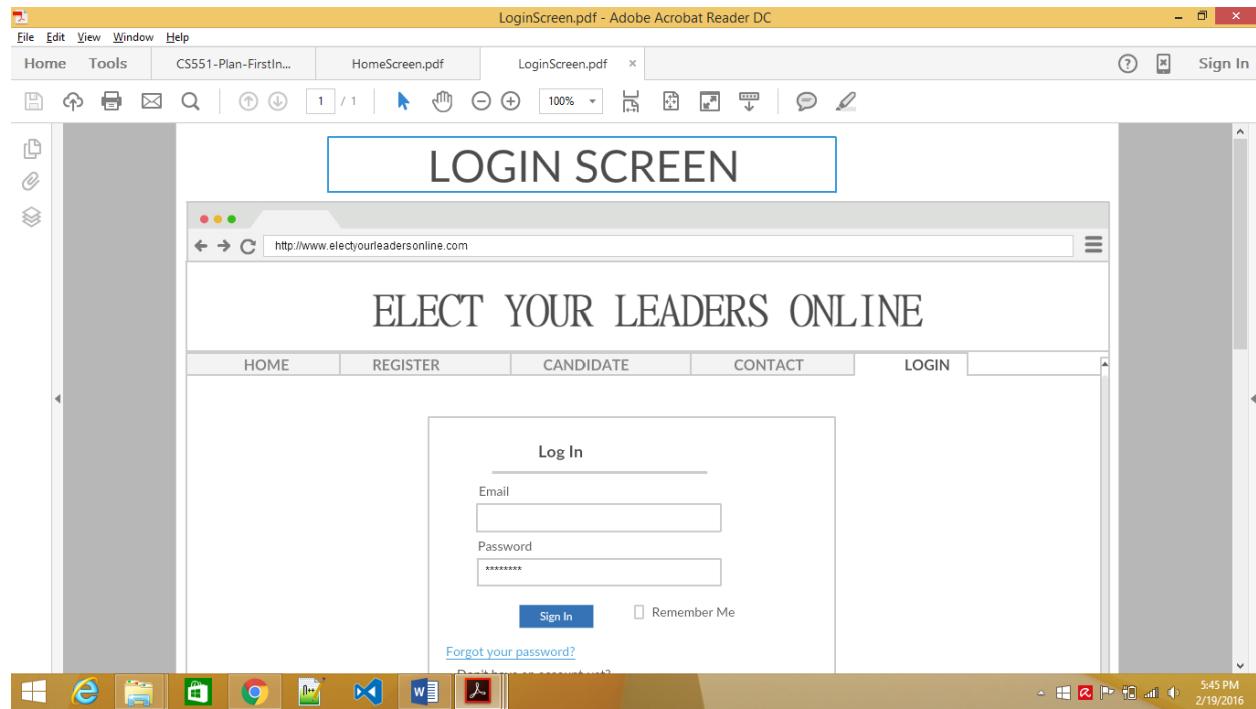
[https://github.com/gkswargam/ASE\\_Project\\_Team9/tree/master/Increment4/Documentation/Project\\_Wireframes](https://github.com/gkswargam/ASE_Project_Team9/tree/master/Increment4/Documentation/Project_Wireframes)

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

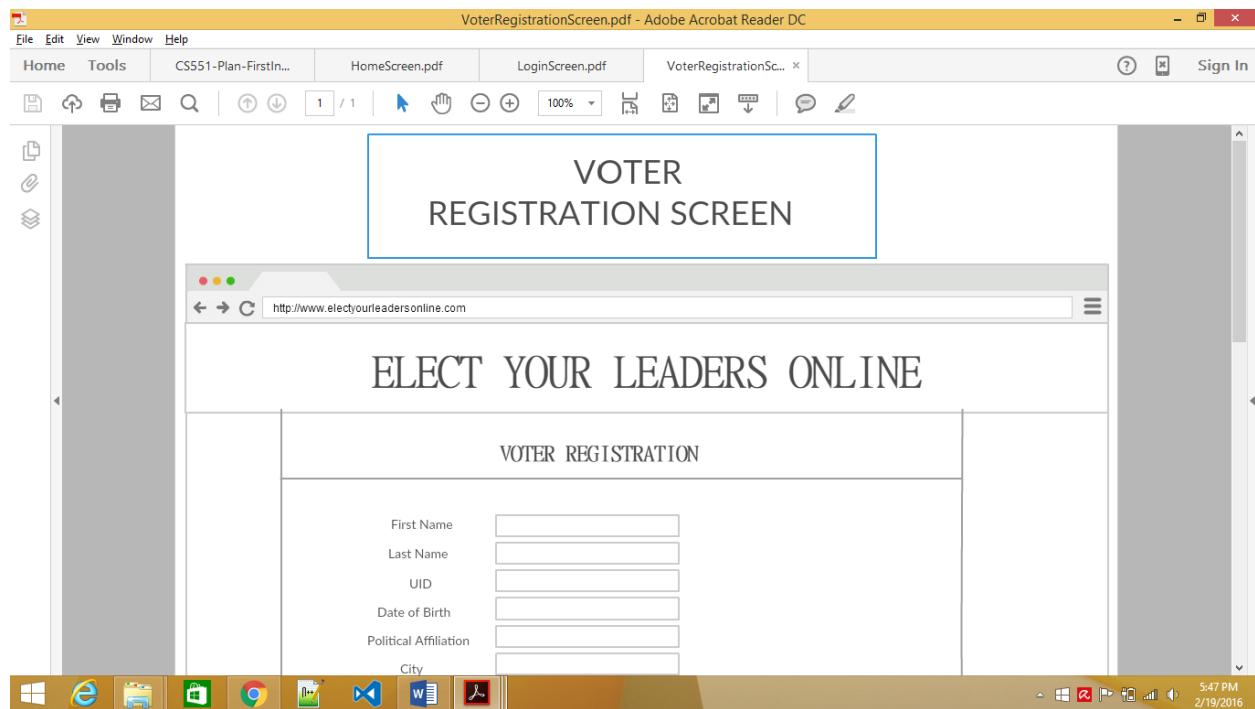
## Home Screen



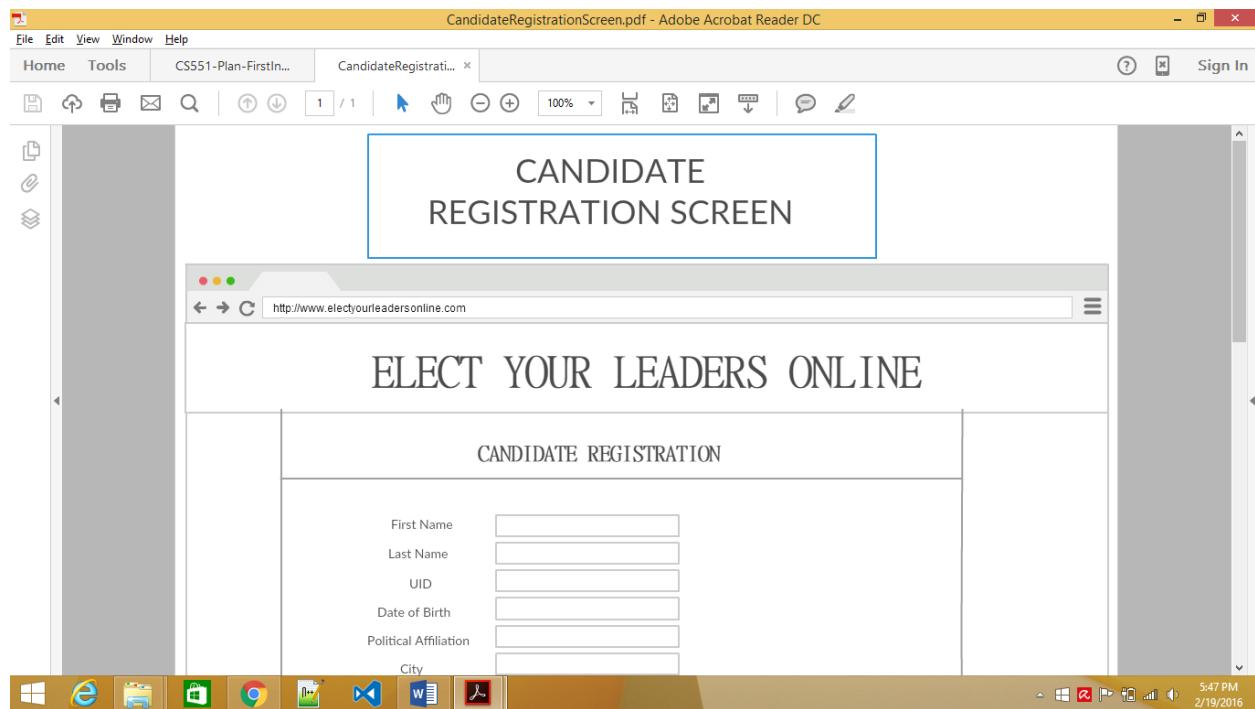
## Login Screen



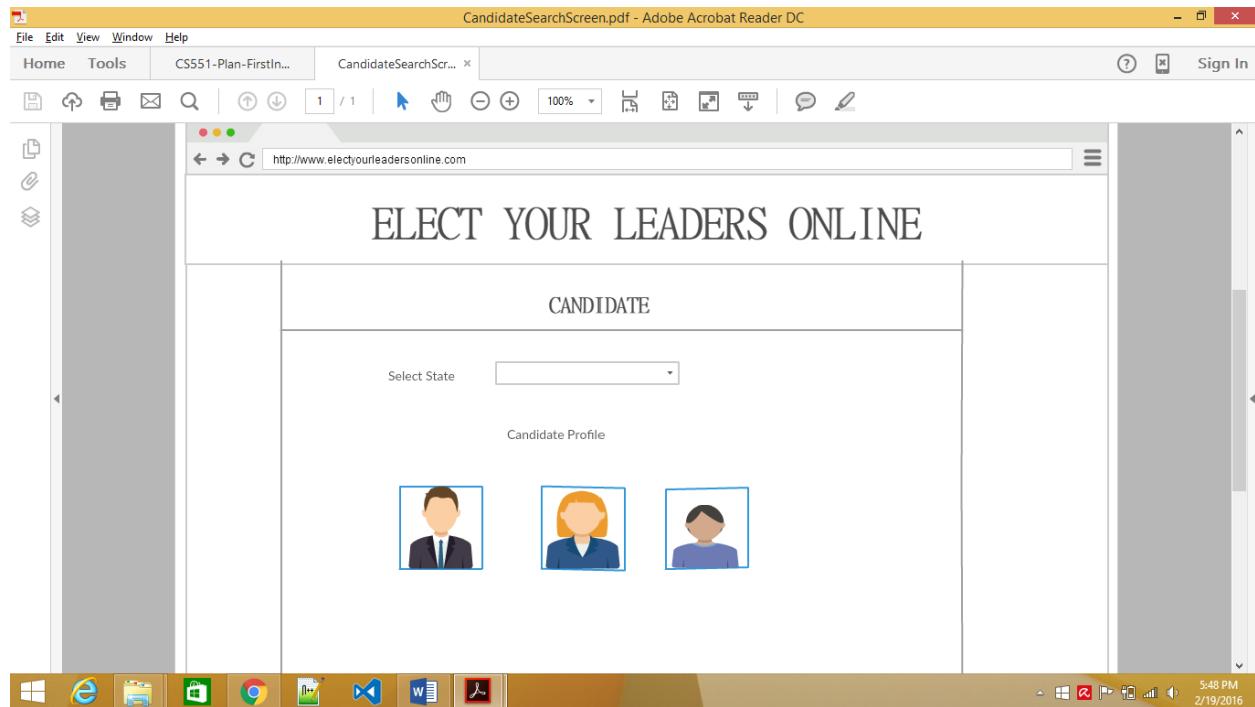
## Voter Registration Screen



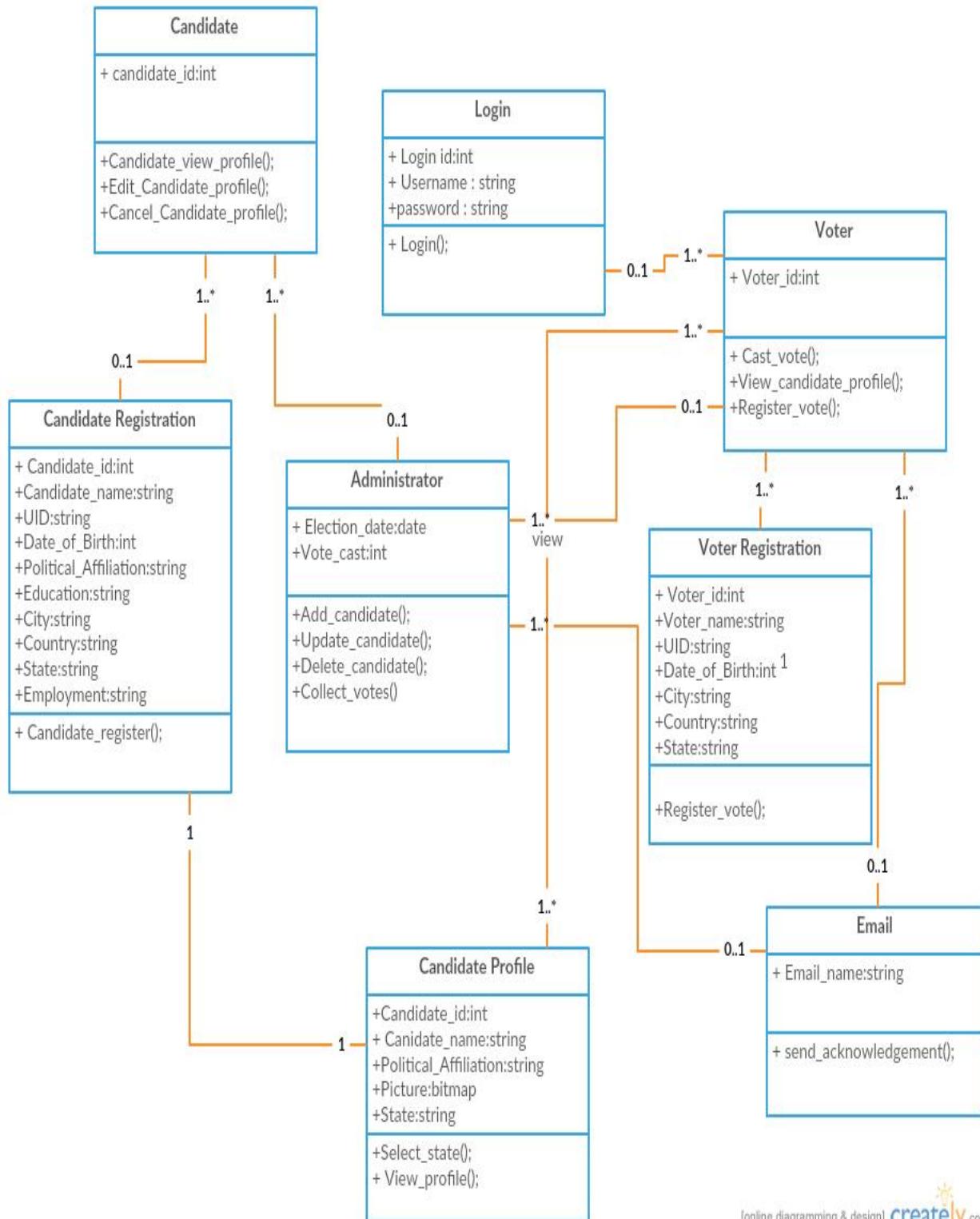
## Candidate Registration Screen

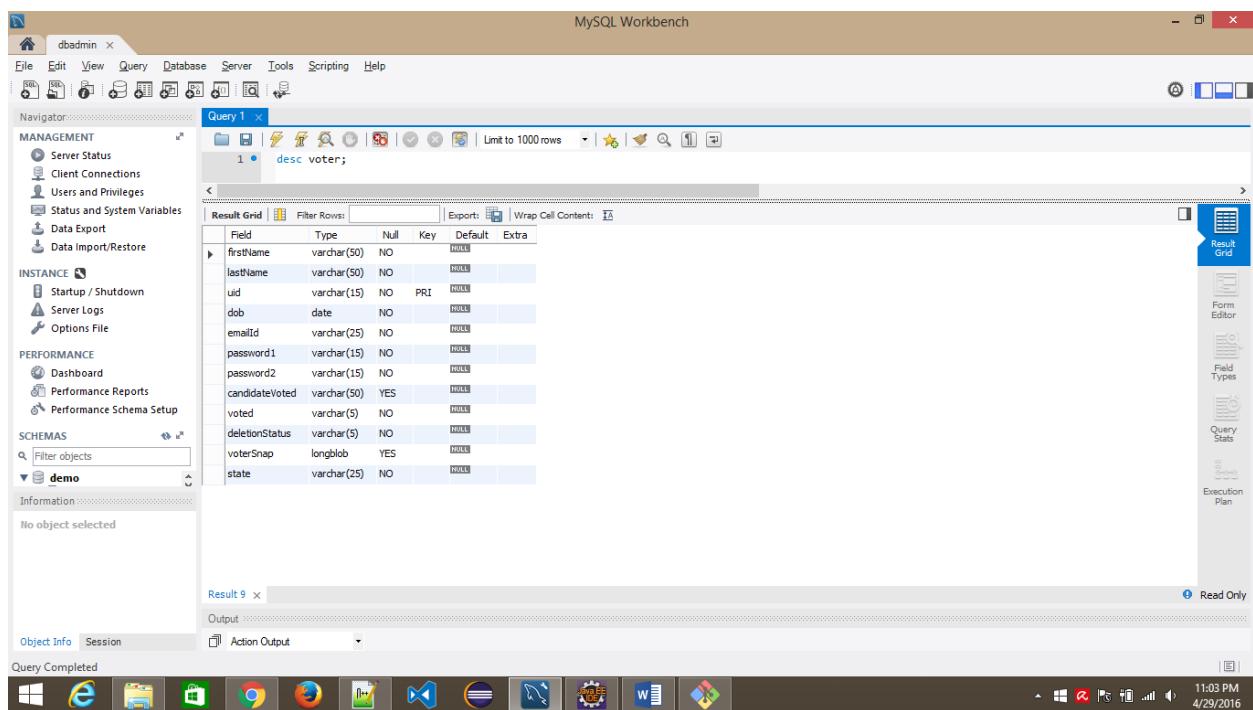
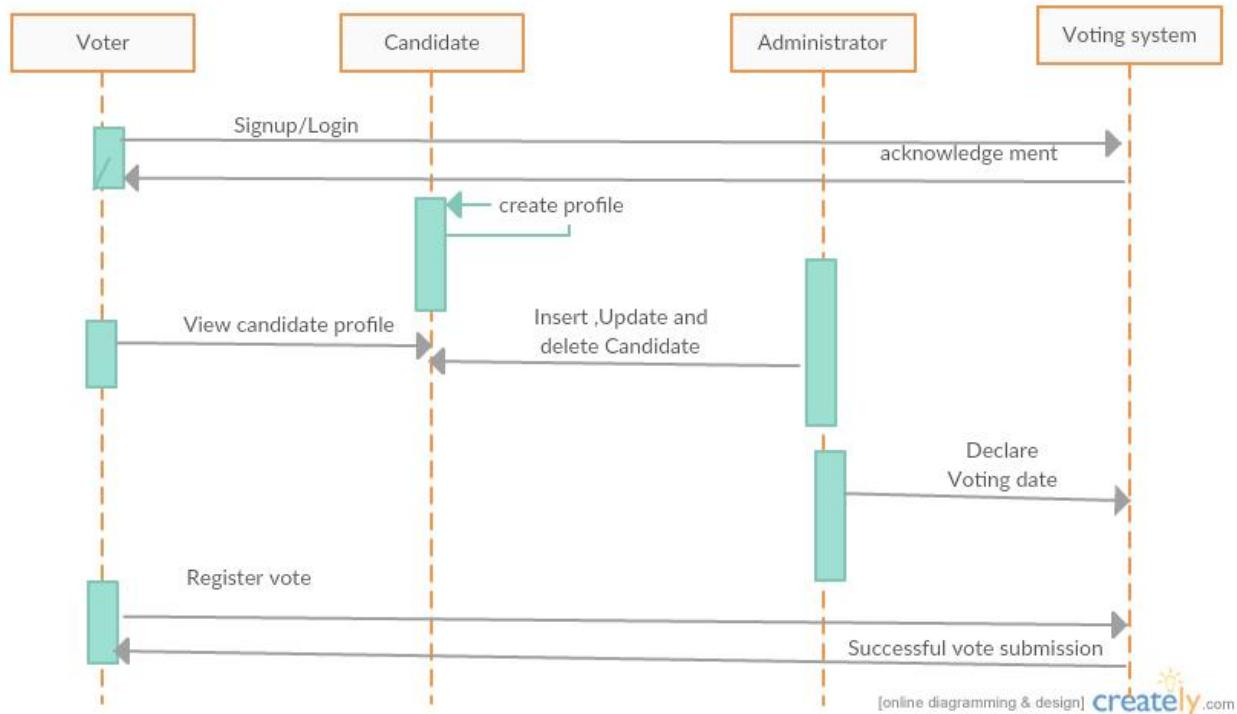


## Candidate Search Screen



Below are class diagrams, sequence diagrams and database descriptions:





MySQL Workbench

Query 1 ×

```
1 desc candidate;
```

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	
highSchoolName	varchar(50)	YES		NULL	
schoolPassingOutWeekYear	varchar(20)	YES		NULL	
underGradSchoolName	varchar(50)	YES		NULL	
underGradPassingOutWeekYear	varchar(20)	YES		NULL	
gradSchoolName	varchar(50)	YES		NULL	
gradPassingOutWeekYear	varchar(20)	YES		NULL	
employer1	varchar(50)	YES		NULL	
employerYear1	varchar(20)	YES		NULL	
employer2	varchar(50)	YES		NULL	
employerYear2	varchar(20)	YES		NULL	

Result 10 ×

Output :::::

Object Info Session Action Output

Query Completed

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## XXVIII. 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:

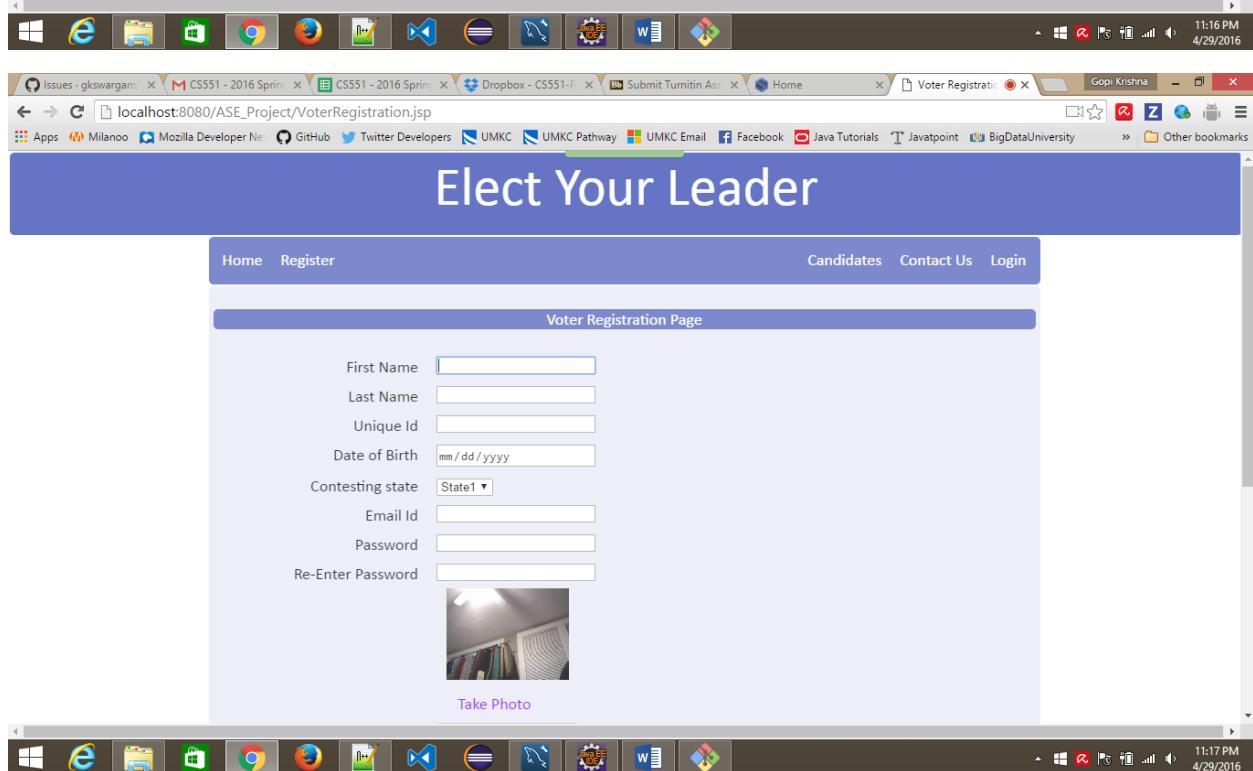
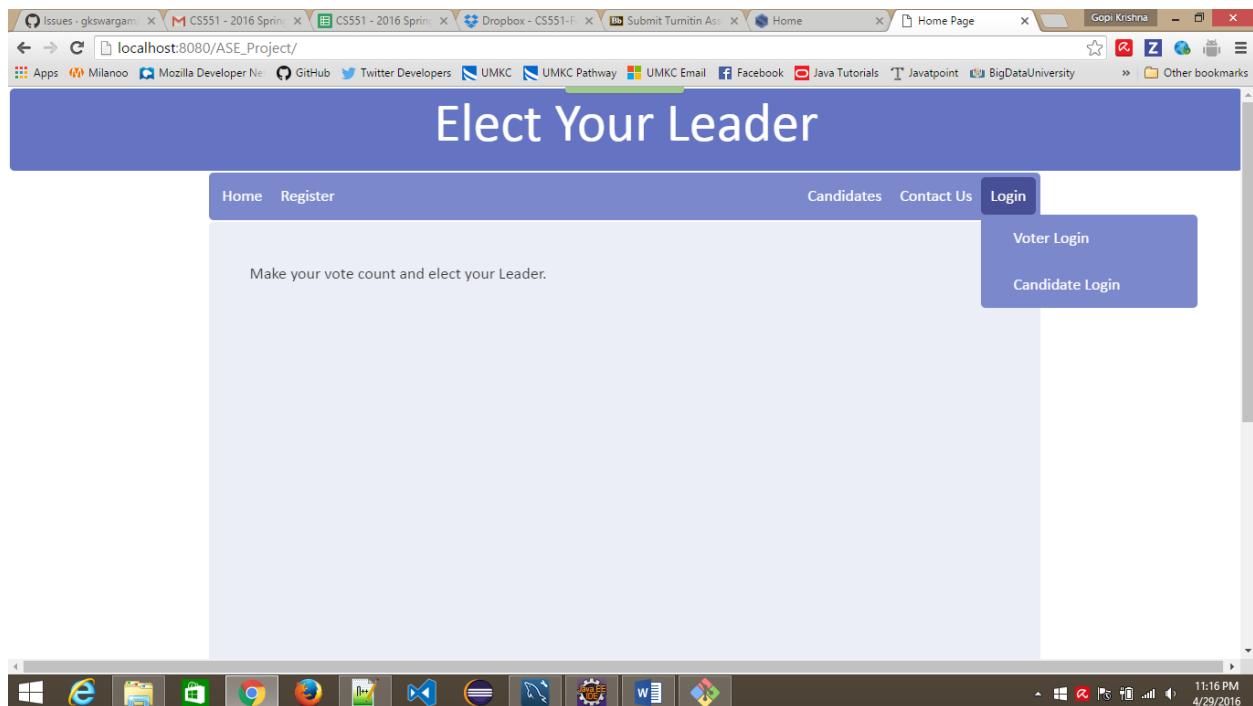
[https://github.com/gkswargam/ASE\\_Project\\_Team9/tree/master/Increment4/Source](https://github.com/gkswargam/ASE_Project_Team9/tree/master/Increment4/Source)

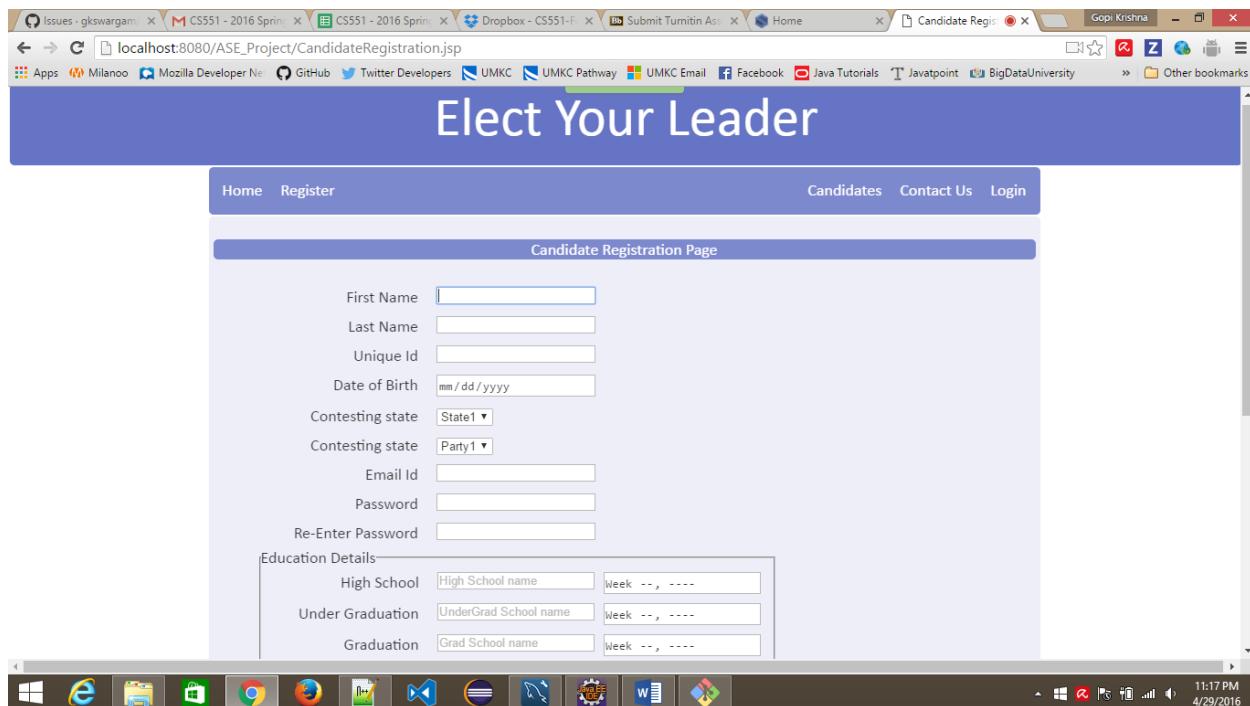
Below are the screenshots for testing through Eclipse IDE and MYSQL:

### User Interfaces:

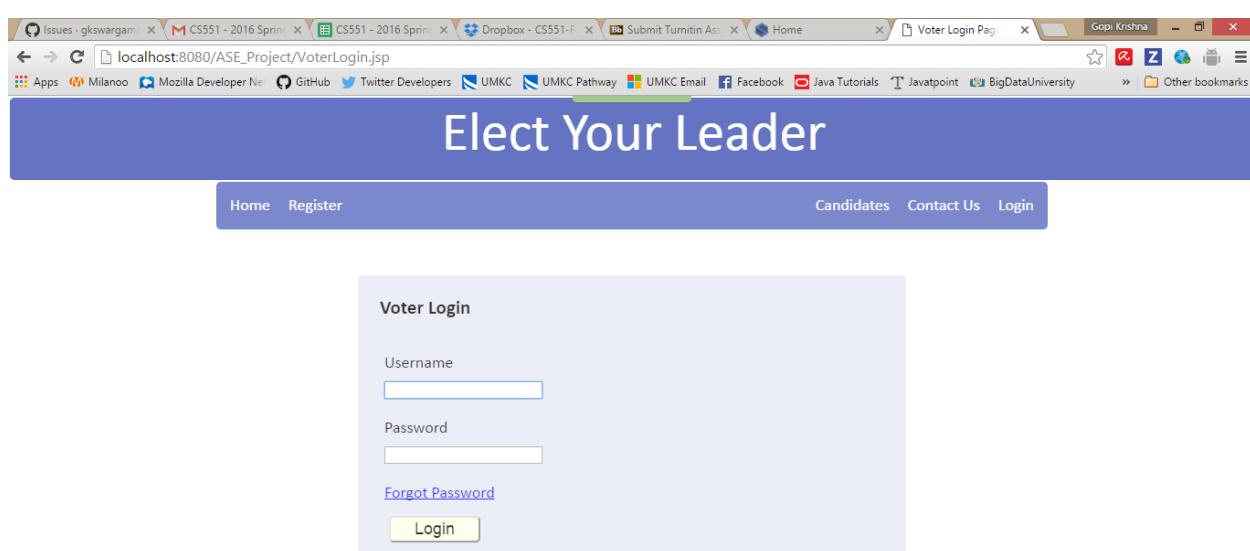
The screenshot shows a web browser window with the URL `localhost:8080/ASE_Project/`. The title bar of the browser says "Elect Your Leader". The page content includes a header with "Home" and "Register" buttons, and a main area with the text "Make your vote count and elect your Leader.". The browser's address bar and various tabs are visible at the top.

The screenshot shows a web browser window with the URL `localhost:8080/ASE_Project/`. The title bar of the browser says "Elect Your Leader". The page content includes a header with "Home" and "Register" buttons, and a sidebar with "Voter Registration" and "Candidate Registration" links. The main area has the same text as the previous screenshot: "Make your vote count and elect your Leader.". The browser's address bar and various tabs are visible at the top.





The screenshot shows a web browser window with multiple tabs open at the top. The active tab is titled "Candidate Registration Page". The page has a blue header bar with the text "Elect Your Leader". Below the header is a navigation bar with links for "Home", "Register", "Candidates", "Contact Us", and "Login". The main content area is titled "Candidate Registration Page" and contains several input fields for personal information: First Name, Last Name, Unique Id, Date of Birth (mm/dd/yyyy), Contesting state (dropdown menu showing "State1"), Re-Enter Password, and Education Details. The Education Details section includes dropdown menus for High School, Under Graduation, and Graduation, each with a corresponding name field and a date selector.



The screenshot shows a web browser window with multiple tabs open at the top. The active tab is titled "Voter Login Page". The page has a blue header bar with the text "Elect Your Leader". Below the header is a navigation bar with links for "Home", "Register", "Candidates", "Contact Us", and "Login". The main content area is titled "Voter Login" and contains three input fields: "Username" and "Password", and a link "Forgot Password". At the bottom is a yellow "Login" button.



The screenshot shows a web browser window with multiple tabs open at the top. The active tab is titled "Candidate Login Page". The main content area displays a blue header bar with the text "Elect Your Leader". Below this is a form titled "Candidate Login" containing fields for "Username" and "Password", a "Forgot Password" link, and a "Login" button.

Candidate Login

Username

Password

[Forgot Password](#)



Validations, Data insertions, reading data, voting functionality:

The screenshot shows a web browser window with multiple tabs open at the top. The active tab is titled "Voter Login Page". The main content area displays a blue header bar with the text "Elect Your Leader". Below this is a form titled "Voter Login" containing fields for "Username" and "Password", a message "Username or password is incorrect", a "Forgot Password" link, and a "Login" button.

Voter Login

Username

Password

Username or password is incorrect

[Forgot Password](#)



Screenshot of the "Voter Registration Page" showing a successful registration attempt.

The page displays the following form fields:

- First Name: FirstName1
- Last Name: LastName1
- Unique Id: SSN007
- Date of Birth: 04/12/2016
- Contesting state: State7
- Email Id: gs446@mail.umkc.edu
- Password:  (displayed as four dots)
- Re-Enter Password:  (displayed as three dots)

A placeholder image of a person's face is shown above a "Take Photo" button. Below it is a placeholder box labeled "photo of you". A file input field "Your Image" shows "Choose File | No fil...hosen".

The "Submit" button is present, and a tooltip message "Please select a file." is displayed next to it.

Screenshot of the "Elect Your Leader" page showing a failed voter registration attempt due to password mismatch.

The page displays the following form fields:

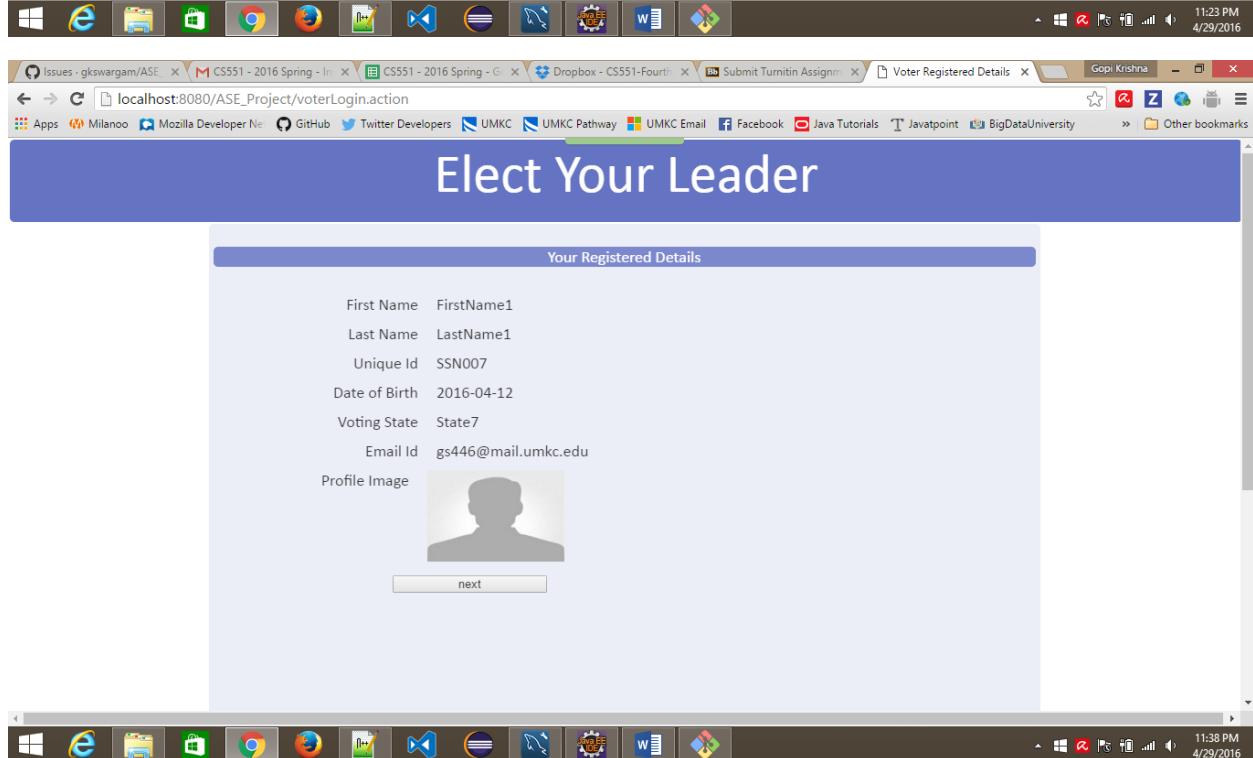
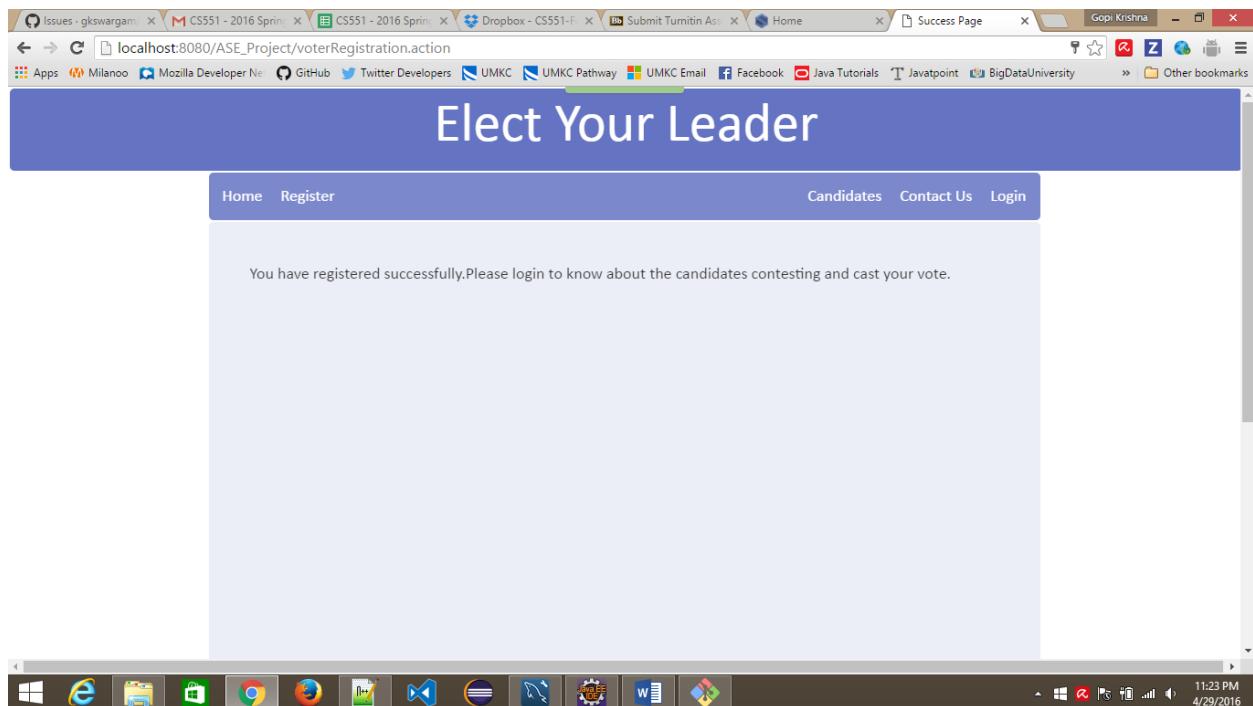
- First Name:
- Last Name:
- Unique Id:
- Date of Birth:  mm/dd/yyyy
- Contesting state: State1
- Email Id:
- Password:
- Re-Enter Password:

Validation errors are shown below the password fields:

- password and re-entered password are not equal
- password and re-entered password are not equal

A placeholder image of a person's face is shown above a "Take Photo" button. Below it is a placeholder box labeled "photo of you".

The "Submit" button is present.



Candidates contesting in your state

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

---

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

---

First Name: FirstName2  
Last Name: LastName2  
UID: SSN0078  
Party: Party4

---

First Name: FirstName3  
Last Name: LastName3  
UID: SSN008



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UID: SSN0077  
Party: Party1

---

First Name: FirstName2  
Last Name: LastName2  
UID: SSN0078  
Party: Party4

---

First Name: FirstName3  
Last Name: LastName3  
UID: SSN008  
Party: Party1

---

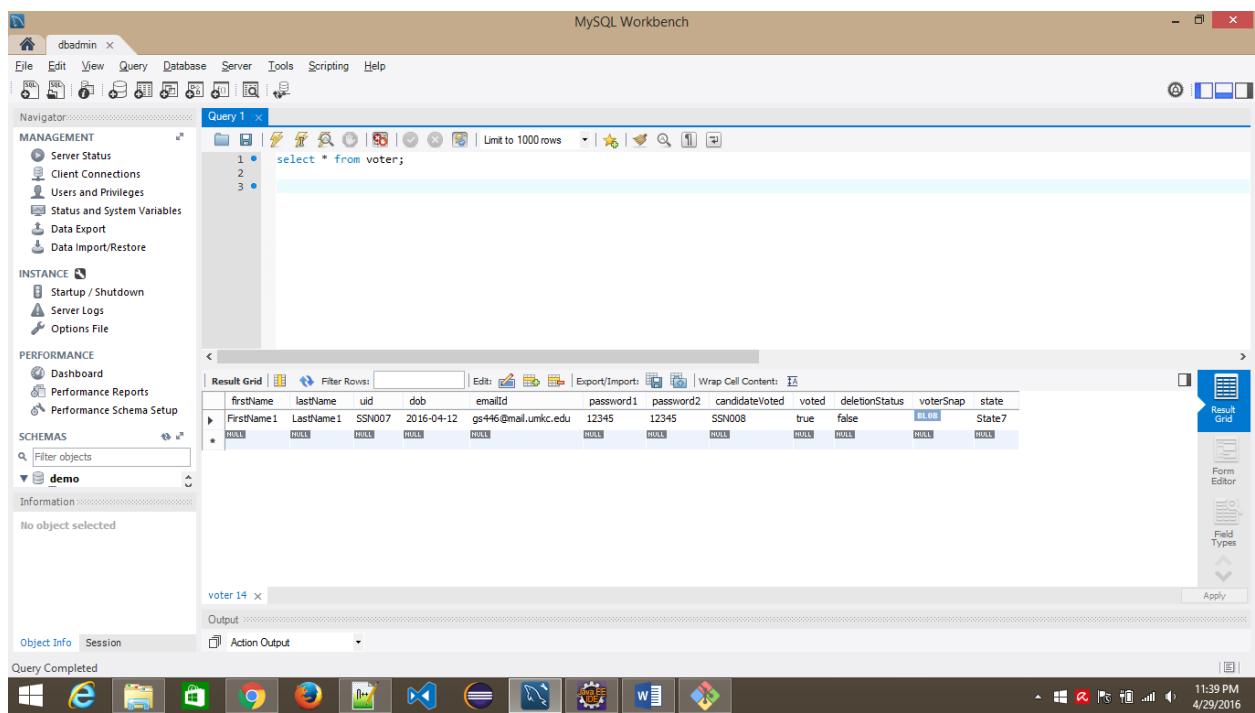
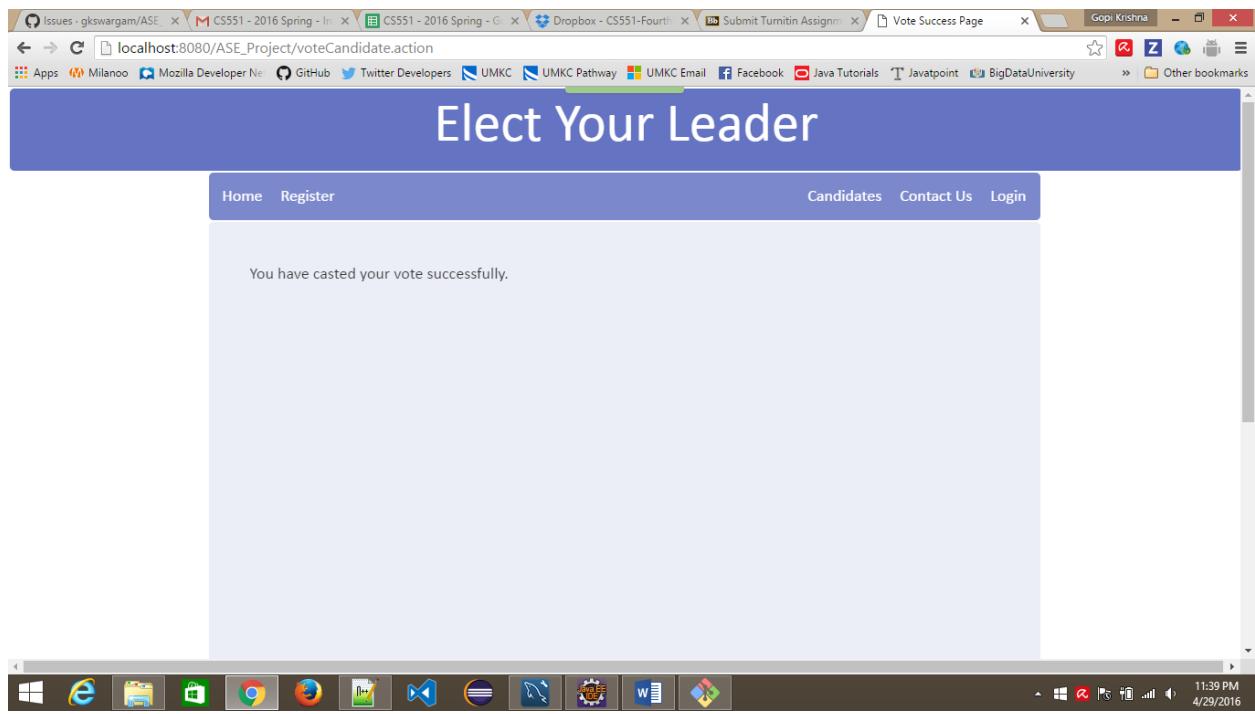
First Name: FirstName4  
Last Name: LastName4  
UID: SSN009  
Party: Party3

---

Vote:  SSN007  SSN0077  SSN0078  SSN008  SSN009  Submit



11:39 PM  
4/29/2016



MySQL Workbench

**Navigator:**

- 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

**Query 1**

```
1 • select * from candidate;
```

**Result Grid**

firstName	lastName	uid	dob	emailId	password1	password2	highSchoolName	schoolPassingOutYear	underGradSchoolName	underGradPassingOutYear
FirstName1	LastName1	SSN007	2016-04-13	gs446@mail.umkc.edu	123456	123456	SSK		KLCE	
FirstName5	LastName5	SSN0077	2016-04-06	gopikswargam@yahoo.in	123456	123456	SSK4		KLCE4	
FirstName2	LastName2	SSN0078	2016-04-20	glskwargam@gmail.com	12345	12345	SSK1		KLCE1	
FirstName3	LastName3	SSN008	2016-04-20	glskwargam2237@gmail.com	1234	1234	SSK2		KLCE2	
FirstName4	LastName4	SSN009	2016-04-19	glskwarga@yahoo.co.in	12345	12345	SSK3		KLCE3	
HULL	HULL	HULL	HULL	HULL	HULL	HULL	HULL	HULL	HULL	HULL

**candidate 15**

**Output**

**Object Info** **Session** **Action Output**

Query Completed

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

localhost:8080/ASE\_Project/candidateSearch.action

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

# 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

## **XXIX. 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.

## **XXX. 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](https://github.com/gkswargam/ASE_Project_Team9/tree/master/Increment4)

## **XXXI. 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.
- Implemented the login functionality.
- 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**

(13)Load candidate details

Alsofyani,Mohannad Eida M

(14)Voting enable and disable feature

JyothiKiran Nandanamudi

(15)Candidate Search

Sidrah Junaid

(16)Voting functionality

Gopi Krishna Swargam

- **Time taken**

225 hours

- **Contributions**

(13)Gopi Krishna Swargam	25%
(14)Nandanamudi Jyothikiran	25%
(15)Sidrah Junaid	25%
(16)Alsofyani,Mohannad Eida M	25%

## Bibliography

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

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

# **Presentation Slides**

# Elect Your Leader

Instructor: Dr. Lee  
Group members: 1. Jyothi Kiran  
2. Gopi Krishna  
3. Sidrah  
4. Mohannad



## Portal for choosing a leader.....

- Businesses, governments, communities, and organizations in general need leaders.
- **Traditional Voting System:**
  - Dates will be declared
  - The candidates will file the nomination papers.
  - They will do campaigning
  - People has to travel to their localities and has to wait for hours to cast their vote.
  - Sometimes, re-polling happens if initial polling is unsuccessful due to reasons such as adverse weather, violence etc.,
  - It is a tiresome, uneconomical, inefficient process.
- **Our voting system will be an solution for all these complications.**

## Online voting system

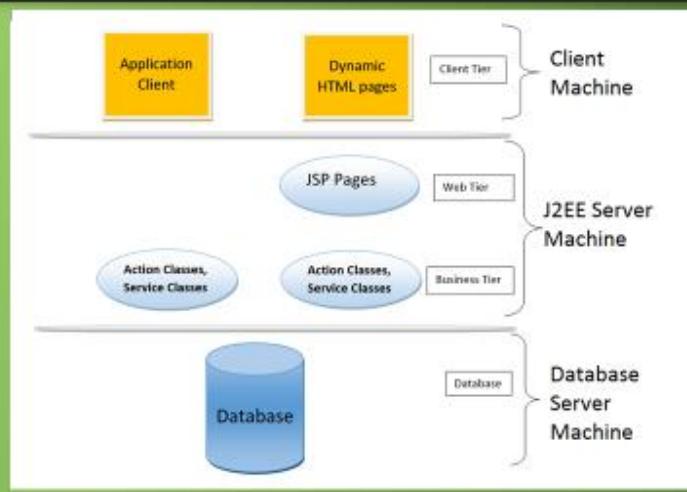
### Objective

- Should be available to everyone :
- Should be cost free, both from maintaining side and people's side
- Saving all resources.
- Election fraud

### Implementation

- We designed a web based application, so any one can access with an internet and media devices.
- Maintenance side, checking it time to time for servers problems and from people side all they had to do is open browser and type this URL from their homes.
- Manpower, security system all can be avoided.
- Our application will avoid bad vote.

## System Architecture



## Features of our application:

- Voter and candidate registration
- Voter Unique ID & Password are encrypted and stored in database for security.
- Voter can view contesting candidates in his locality.
- Voter can customize his image and his details in his profile.
- Voter & candidate can see the information about all the votes casted to a person.
- Voter can share this application with his friends and family with Facebook share, twitter and google+
- Voter or candidate can create an event of the election date in the calendar and can be notified on the election date.
- Voter or candidate can contact the administrator team for any support.

## Conclusion:

- Our voting application can be a solution for scalable, economical and fraud free voting system. The voting system will be transparent and can be accessible from all locations.
- Our system can nullify the resources being spent for the voting.
- It is very effective for choosing a leader as the voter will know about the candidate that he is going to vote.

## References:

- <http://www.codejava.net/>
- <http://www.w3schools.com/>
- <http://www.tutorialrepublic.com/>
- <https://struts.apache.org/docs/home.html>

### **GitHub URL**

[https://github.com/SCE-UMKC/ASESP16\\_ElectYourLeader\\_Team9](https://github.com/SCE-UMKC/ASESP16_ElectYourLeader_Team9)

### **YouTube Project Video URL**

<https://youtu.be/sO-577FjmUs>