

ONLINE ELECTORAL SYSTEM(e-Voting)

1. Objective

- It is an online system through which students can get logged in to the website and can vote for their desired candidate or even apply for the various posts available.
- The system is capable of maintaining details of various Students, Applicants and storing the votes of the voters in its database.
- The central concept of the system is to get the applications for various posts, shortlist the applicants, perform the voting procedure and declare results.

2. Introduction

Elections are the most important aspect of a democracy. An election is a formal decision-making process by which a population chooses an individual to hold public office. With the advancement in other areas, a realistic and modern approach to the election procedure should also be a point to ponder upon.

2.1 Purpose

This document is meant to delineate the features of Online Electoral System as a web application, so as to serve as a guide to the developers on one hand and a software validation document for the prospective client on the other.

2.2 Intended User

For organisations which seek to provide a fast, feasible and a more advanced method for internal elections. The primary users of this system will be the individuals of an organisation who would be able to cast their votes and take part in this process conveniently. Other users would be the candidates who wish to take various positions of responsibilities in the organisation.

2.3 Project Scope

This system allows the customer's

- To maintain the records of applicants of various posts and voters and their votes
- Verification procedure that includes activation through a link send on the email of the elector.
- Give different login classes for Applicants, Voters and the managing firm.

- To generate the results of the election process by counting of the authentic votes.
- To ease the Voting procedure.
- To provide the applicants their own page to campaign.
- It provides security with the use of login id and password, so that any unauthorised users can not use your account. Only the authorised people that will have proper access authority can access the software. The authentication that the voting is done by the user of that account themselves by sending a verification mail at their registered email Id.

2.4 Limitations of the System

An initial limitation of this system is that the applicants cannot customize their own pages to look like what they want it to be.

Also, this system can only allow a limited number of users to log in to the server.

3. Overall Description

3.1 Product Perspective

Online Electoral System application is aimed towards common people and organisations who wish to make, like other important exercises today, the election procedure online, interactive, easy as well as safe and secure. This project envisages bridging the gap vote, who would find excuses not to vote due to lack of knowledge about candidates or unavailability of time. This should be user friendly, quick to learn and reliable.

3.2 Product Features

- User classes -

There are 3 types of classes which a customer gets when he/she registers themselves for the application, namely voters, applicants and admin login. The voters get to look at the pages of the applicants in order to decide who they want to elect for different posts. Applicants get to campaign their contender ship via their page. Admin login is used so as to perform the selection of the contenders amongst the applicants.

- Voting –

Voters and applicants both get to vote. Applicants will use their voting accounts to vote instead of the account which they used to apply.

- Selection –

Selection of the shortlisted candidates is done through admin login and the process is expected to be done confidentially.

- **Verification of authentic polls –**
The voters will receive a verification link so that there is no vote done in any pressure. One person can log in and vote only once for a single post.
- **Results –**
The results of the poll will be calculated based on the number of authentic votes that have been submitted. Results will be declared on the site.

3.3 Operating Environment

For Linux as well as Windows operating system

The hardware, software and technology used should have following specification:

- Continuous power supply
- Ability to connect to network
- Ability to take input from user
- Ability to validate user
- An appropriate and stable internet connection.

3.5 Design Constraints

The system shall be built using a standard web page development tool that confirms to Microsoft's GUI standards like HTML, XML etc.

4. System Features

4.1 Functional Requirement

This section provides requirement overview of the system. Various functional modules that can be implemented by the system will be -

4.1.1 Registration

- **Description**

If an individual wants to cast a vote, he will be first sent an email when the election process commences. He/ She will login in using the college Id and the password sent on the mail. The student will then be able to change the password.

- **Input**

Name, ID number of the organisation for authentication and password sent on the mail for login.

- **Users**

Students of the college only.

- **Output**

The student gets registered and now will be able to cast vote and change data on the database of server, so that it can be accessed at any time when user logs in.

4.1.2 Login

- **Description**

Individuals login to the system by entering valid user id and password for the voting. There are different login for voters administrator.

When a user logs in to a system, he or she will be able to access his info on the server, change password and view his votes and other details.

- **Users**

Students of the college, candidates and admin.

- **Input**

Input will be user id and password given at the time of registration. User will have to enter correct username and password only to log in to his account.

- **Output**

If the user enters a correct password then he will be directed to the next page i.e. his account page.

If he enters an incorrect username or password then, there will be shown a message of invalid user id or password and an option of forgot password so which sends a link of forgot password on his registered mail.

4.1.3 Singularity of Votes

- **Description**

This means that a single individual can only log in through a single user id and the vote will be for a single position only. No individual can cast more than one vote for a position.

- Users

Students who have logged in after registration.

- Input

Unique Code that will be activated only once for a user.

- Output

Once the code is verified the link will dissolve and vote will be considered as casted.

4.1.4 Applications for posts

- Description

Aspirants of different posts can apply for a particular number of posts (limit will be set according the number of applications). They will be required to fill the application forms with the details correct and authentic to the best of their knowledge. If the information is found to be incorrect then their application may be cancelled. An individual can only apply for a single post only.

- Users

Students of the college only, who want to apply for posts.

- Input

Details mentioned in the application form and photographs etc.

- Output

The applications will be submitted and the applicants will be notified about whether their candidature is accepted or not.

4.1.5 Logout

After the Voting procedure or Viewing of the candidates the customer will have to log out from his account so that other user cannot miss-use their accounts.

- Users

Students, candidates and admin.

- Input

Logout button provided.

- Output

Just clicking the Logout button will redirect the user to the Home page again.

4.1.6 Change Page Details of Candidates

The students whose candidature gets approved will be able to change the details on their home page.

- Users

The approved candidates only.

- Input

Details that need to be changed on the candidates page.

- Output

The modified details will be changed in the database

4.1.7 Open and close the voting lines

The Admin will be given this privilege where he/she can open and close the voting links by logging in.

- Users
Administrator.
- Input
Time duration for which link are to be opened.
- Output
The notification will be displayed on the Home Page.

4.1.7 Declaration of results

The Admin will be given this privilege where he/she can display the results on the Home Page by logging in.

- Users
Administrator.
- Input
Clicking the “Display Results” Link.
- Output
The Results will be displayed on the Home Page.

4.2Non-Functional Requirement

4.2.1 Security

- The system uses SSL (secured socket layer) in the procedure that ensures confidentiality of the user’s information.
- The system must automatically log out all users after a period of inactivity.

4.2.2 Availability

- The system should be available at all times, meaning the user can access it using application.
- In case of a of a hardware failure or database corruption, a replacement page will be shown. Also in case of a hardware failure or database corruption, backups of the database should be retrieved from the application data folder and saved by the administrator.
- It means 24 X 7 availability.