Software Requirement Specification (SRS)

**Online Voting System(OVS)**

**1)Purpose:**

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

The Online Voting System (OVS) web application is intended to provide complete solutions for online casting of votes through a single get way using the internet.

It also serves the purpose of making the functionality clear to the end users. The reader is expected to have prerequisite knowledge of online voting systems to be able to understand the document.

**2)Scope:**

* This system will increase the voting percentage in India.
* If high security is applied then it may reduce false vote.

Thissystem allows EA to see all detail in brief like total registered voters, total candidates and have many other controlling factors over the voting system so as to carry out the voting process smoothly.

User can also update his/ her profile, change the password and recover the password.

**3) Definitions:**

EA – Election Authority

SRS – Software Requirement Specification.

GUI---> Graphical User Interface

Portal--> Personalized Website

Stack holder--> The person who will participate in the System. And owner of the system

RDBMS --> Relational Database Management System.

CLUSTERS---> Group of independent servers.

**4)Overview:**

The software product is a standalone system and not apart of a larger system. The system will be made up of two parts, one running visible directly to the administrator on the server machine and the other visible to the end users, in this case the voters, through web pages. The two users of the system, namely the voters and the administrator(EA) interact with the system in different ways. The election authority configures the whole system according to it’s needs on the server where the system is running. The voters cast their votes using the web interface provided. These votes are accepted by the system on the server.

**5)General Description:**

* **Voter Module:**

This module includes various functionalites such as giving the voter a chance to register himself into the Voting list and letting him provide specific identity details inorder to get them verified from the admin.

* **Admin module:**

Admin here plays the main role here in controlling the toll of election like maintaining valid voter database, allowing voters to vote and also stop voting after the deadline, declare results and many more functionalities.

**6)Product Perspective:**

This Web Application aimed towards a person who wants to vote from any location with the help of the internet accessibility.

**7)Functional Requirement:**

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

**Description:**

* **Voter Module:**  
  1. Voter signup (Name , Mobile no , Email , Password )   
  2. The system presents the voter with successive screens for voting for each of the posts.   
  3. The voter selects one of the candidates and submits his choice to the system.

4. The system presents the voter with the final choices of the candidates for each post made by

the voter for confirmation.

5. Logout: After casting his vote voter can logout.

* **Admin Module:**

1. The EA is asked to login using his administrator password.
2. Dashboard: In this section, admin can see all detail in brief like the total registered voters, total candidates, new registered voters approval requests, etc.
3. Voter Database Management: Admin will have the feature to manage the voter database like add, delete, update the voter list.
4. Candidate Database Management: Admin will also get the feature to manage the candidate list to add, delete, update the candidate list.
5. Admin will have the authority to start the voting process and end it if needed according to the circumstances.

**8) Technical Issues:**  
 This system will work on client-server architecture. It will require an internet server and which will be able to run PHP application. The system should support some commonly used browser such as IE,  
Mozilla Firefox, chrome etc.

There will be a screen displaying information about user.

The users may select the different options which will be open in another screen as

1.Login Page

2.Registration Form

3.Voter details Page

4.Candidate detail Page

5.Casting Vote Page

6.Admin Dashboard

7.Result details

**9) Hardware Interface:**

The System must run over the internet, All the hardware shall require to connect to internet will be hardware interface for the system e.g. modem, WAN, LAN Specialized Server Infrastructure Hardware The system should use distributed servers i.e. cloud for managing large amount of data so as to make it appear as single unit for end-user. The system should have proper clusters for backup.

**10) Software Interface:**

The system is on server, so it requires the any scripting language like JSP or PHP or ASP, ETC. The system should be able to exchange data using XML, JASON or any advance technology. The system require Database also for the store the any transaction of the system like oracle, or SQL server etc. System also require DNS (Domain Name space) for the naming on the internet.

**11) Performance Requirements:**  
In order to maintain an acceptable speed at maximum number of uploads allowed from a particular customer as any number of users can access to the system at any time. Also the connections to the servers will be based on the attributes of the user like his location and server will be working 24X7 times.

**12 )Non-Functional Requirements:**

Following Non-Functional Requirements will be there in the  
insurance to the internet:  
(i) Secure access to consumer’s confidential data.  
(ii) 24X7 availability.  
(iii) Better component design to get better performance at peak  
time.  
(iv) Flexible service based architecture will be highly desirable for  
future extension. Non-Functional Requirements define system  
properties and constraints.  
Various other Non-Functional Requirements are:

* **Security**

**SSL**

The System use SSL (Secure Socket Layer) in all transactions that include any confidential customer information.

The system must automatically log out all customers after a period of inactivity.

The system should not leave any cookies on the customer's computer containing users’ password. The system's back-end servers shall only be accessible to authenticated administrators. Sensitive data will be encrypted before being sent over insecure connections like internet. The proper firewalls should be developed to avoid intrusions from the internal or external sources.

* **Reliability**

The system provides storage of all databases on redundant computers with automatic switchover. The main pillar of reliability of the system is the backup of the database which is continuously maintained and update to reflect the most recent changes.

* **Maintainability**

A commercial database is used for maintaining the database and application server takes care of the site. The maintainability can be done efficiently.

* **Portability**

The application is HTML and scripting language based (JavaScript). so the end user part is fully portable and any system using any web browser should be able to use the features of the system, including any hardware platform that is available or will be available in the future.

An end-user is used this system on an OS; either it is Windows or Linux. the System shall run on PC, Laptops and PDA. etc. The technology should be transferable to different environments easily.

* **Availability:**

The system should be available at all times. meaning the user can access it using web browser,

only restricted by the down time of the server on which the system runs.

In case of a of a hardware failure or database corruption, a replacement page will be shown.

uptime: It mean 24 \* 7 availability

100%-------------

99.9%

99.999%

99.9999%

* **Polices**

The system should adhere to all the legal formalities of the particular country. The system should maintain security related to sensitive data.

* **Accessibility:**

Only registered users should be allowed to process the orders after authentications. Only GUI access of the system should be permitted to end users. System will have different types of users and every user has access constraints.

* **Modularity:**

The system should have user friendly interface. It should be easily updated, modified and reused.

* **Safety:**

Software should not harm ethical and environmental conditions of the end users’ machine.