

# SECURE REMOTE E-VOTING SYSTEM

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## **Keywords:**

API, JavaScript, HTML, CSS, Voting System, Aadhar Authentication.

## **Introduction:**

A democracy is a system of Government in which the entire population participates. Election day is one of the most responsible days of the year. Our nation comes together to elect a leader who will represent us on the global stage till the next election. We will elect a leader who will stand for our rights as citizens and hopefully keep their promises. Voting is the opportunity to contribute to the political process and the system was created to work best when everyone participates. Therefore, using your right to vote is not just an addition to the voter turnout statistics published by every major media site. Our vote actually matters and the nation wants and needs to hear our opinion.

Voter identification is needed during two phases of the electoral process: first for voter registration so as to determine the right to vote and subsequently, at voting time, to allow a citizen to exercise their right to vote by verifying their authentication. The secured e-voting process can be done through linking the voting machines with the Aadhar, an Indian citizen identification data base with a unique identification number for every citizen. The Aadhar based Electronic Voting Machine (EVM) can result in secured e-voting process.

The present system has the **disadvantage** that all the voter should reach their hometown or to the area where they should cast their vote. There may be some people who desire to represent their vote but they cannot overcome their situation. This is one of the reason for not achieving cent percentage voting in our country.

## Objectives:

1. This project intends to speed up the counting of ballots, reduce the cost of paying staff to count votes manually and can provide improved accessibility for disabled voters.
2. In the longterm, expenses are expected to decrease.
3. Results can be reported and published faster.
4. Voters save time and cost by being able to vote independently from their location.
5. This may increase overall voterturnout.
6. The citizen groups benefiting most are the ones living abroad, citizens living in rural areas faraway from polling stations and the disabled with mobility impairments. In this model a person can vote from outside of his/her allotted constituency or from his/her preferred location.

## Methodology:

1. The authority must login first with the provided session ID.
2. The voter can now begin the process of voting with proper authentication through OTP (onetime password) on the respective linked mobile number.
3. If the voter is valid then the system will check for the voter's age and the address to whichhe can give vote.
4. The voting pallet will be opened with candidate names, their parties and logos.
5. Now the voter can give his vote by clicking vote button.
6. One voter can give his vote only once, i.e. after one time voting buttons are disabled and thevote is automatically logged out.
7. Same process continues for many more voters irrespective of their voting wards.

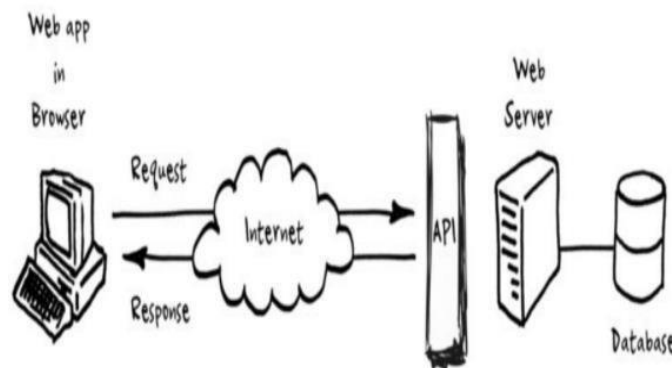


Fig.1 Basic Structure

## Software Requirement-

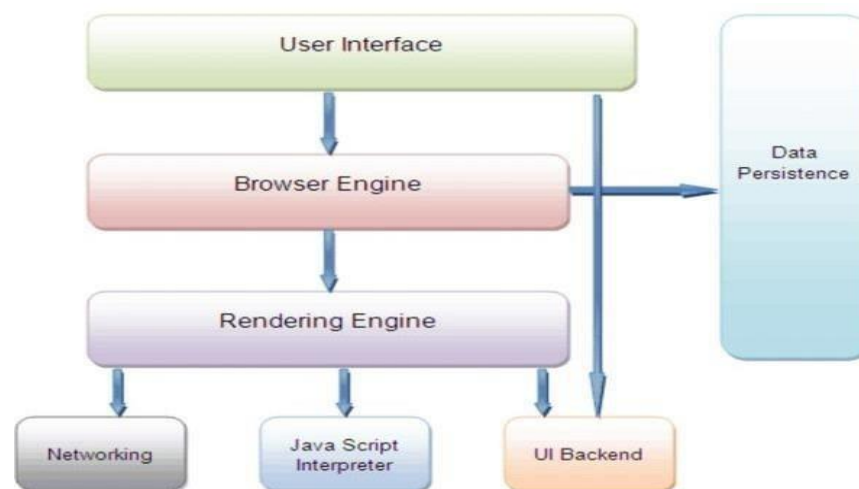
1. HTML for the body of the webpage
2. CSS for the styling of the webpage



3. JavaScript for Dynamic Structure
4. Data Structures & Algorithms

### Other Requirements-

1. User Interface-The user interface (UI) is the point at which human users interact with a computer, website or application. The goal of effective UI is to make the user's experience easy and intuitive, requiring minimum effort on the user's part to receive maximum desired outcome.
2. Browser Engine-A browser engine (also known as a layout engine or rendering engine) is a core software component of every major web browser. The primary job of a browser engine is to transform HTML documents and other resources of a web page into an interactive visual representation on a user's device.
3. A rendering engine- Is software that draws text and images on the screen. The engine draws structured text from a document (often HTML), and formats it properly based on the given style declarations (often given in CSS). Examples of layout engines: Blink, Gecko, Edge HTML, Web Kit.
4. Data is persisted across all users within the application. For example, your creating an application that uses a comment text box, where users can submit comments. You can set the data for this comment box to persist across the application. Any user comment that is submitted to the application is viewable by all users within the application.
5. JavaScript Interpreter- A JavaScript engine is a program or an interpreter which executes JavaScript code. A JavaScript engine can be implemented as a standard interpreter, or just-in-time compiler that compiles JavaScript to byte code in some form.



### Conclusion:

The REMOTE VOTING SYSTEM in which we use AADHAR details and other authentication details to cast the vote has been designed. Data base consisting of the details like name, address, age, gender, AADHAR details, contact details of the people should be updated every time before election. This system affords additional security by allowing voter to vote only once by imparting unique identification.

## Scope for future work:

The present voting system in India is a time-consuming process and not so secured. Our project proposes and implements a simple and secured method of polling vote using AADHAR information. Over a period of time there have been many improvisations in the field of voting which aim at increasing the flexibility, reliability, security, scalability and less time consumption to announce the results. Once the voting process is finished the authoritative officer accesses the results immediately using a unique PIN provided to him.

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