

## **3.1 FEASIBILITY STUDY**

### **3.1.1 Economical Feasibility**

According to the proposed system it is not designed for generating profit. It is designed for conducting legislative assembly elections of a constituency in Kerala. It can be used many times by providing required updates and securities.

- ✓ The cost of storage must be high for the proposed system. That is we have to store the previous election history and details of the result. So it requires a high storage capacity medium.

### **3.1.2 Technical Feasibility**

If a secure and convenient voting system is provided, it will be used more frequently to collect people's opinion through cyber space. The system requires a huge data storage medium to store the data of the voters and candidates. According to the election nature that is the number of people to be involved in the election process.

The software requirement such as PHP, MySQL, HTML, CSS, Bootstrap, etc..

The user of the system must have a little knowledge about the management system operations. The technology chosen for the project is, Apache, MySQL, PHP. OS preferred is Windows 10 and above.

### **3.1.3 Operational Feasibility**

The proposed system can handle multiple users simultaneously. Once it is installed it can be used many times.

#### **Exactness**

A system is reliable if: 1. The outcome of a vote cannot be changed, and two. A legitimate vote cannot be taken away from the final count, An invalid vote cannot be included in the total at the end.

One of the most crucial components of any system is accuracy. The result won't be accurate if the input is incorrect. The system should be accurate in identifying voters as well as in counting votes and preserving the integrity of ballots cast.

#### **Mobility**

When there are no limitations (apart from practical ones) on the place from which a voter can cast a ballot, a system is considered mobile. Voters could be able to cast their ballots from any location with internet connectivity because of the system's mobility. This quality might work better in an electronic voting system. However, the physical machine designs must be compact enough to fit different polling places where a lack of space may be a concern.

#### **Reliability**

If a system constantly carries out and maintains its functions, it is considered trustworthy.

In order for a system to be reliable, it must include backup plans in case of failure. The system should, for instance, have a backup power technique or an uninterruptible power source in case of a power outage. Many polling places were delayed in opening due of broken devices.

### **Consistency**

A system is consistent if it performs well in every setting and circumstance and the functionalities work exactly as intended [6]. For uniformity and quality control, each voting machine must be an exact replica of the others. Additionally, because the voting process is consistent across all locations important in our mobile society—this improves usability.

## **3.2 SYSTEM SPECIFICATION**

### **3.2.1 Hardware Specification**

Processor -

Ryzen 5 or above

RAM -

4GB and above

Hard disk - 500GB HDD or SSD above

### **3.2.2 Software Specification**

Front End - HTML, CSS Backend - MYSQL

Client on PC - Windows 10 and above.

Technologies used - JS, HTML5, AJAX, J Query, PHP, CSS, Bootstrap

## **3.3 SOFTWARE DESCRIPTION**

### **3.3.1 PHP**

Many developers use PHP, an open-source server-side programming language, to create websites. In addition, it is a general-purpose language that you can employ to create a variety tasks, such as Graphical User Interfaces (GUIs).

For more than 15 years, PHP has been the preferred language for web servers due to a number of advantages. Here are a few advantages of PHP:

- **Cross-Platform:** PHP may run on any operating system. It runs on all platforms, including Mac, Windows, and Linux, so you don't need a specific OS to utilise it.
- PHP is available as a **free download**. Everyone who wishes to expand upon the original code has access to it. One of the reasons Laravel, one of its frameworks, is so well-liked is because of this.
- PHP is simple to learn even for **complete beginners**. If you are already familiar with programming, you can take it up quickly.
- All databases, **both relational and non-relational**, can be connected to PHP with ease. So it can quickly establish a connection to any database, including MySQL, Postgress, MongoDB, etc.
- **Supportive Community:** The PHP community is really helpful.

### 3.3.2 MySQL

A systematic collection of data is called a database. It might be anything, such as a straightforward grocery list, a photo gallery, or the enormous amount of data in a business network. A database management system, such as MySQL Server, is required to add, access, and process data contained in a computer database. Database management systems, whether used as stand-alone programmes or as a component of other applications, are essential to computing because computers are excellent at processing vast volumes of data.

- MySQL software is Open Source.
- MySQL databases are relational
- The MySQL Database Server is very fast, reliable, scalable, and easy to use.

A large amount of contributed MySQL software is available.