**Software Requirements Specification**

**for**

MINOR PROJECT (CSL 0601)

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**Project Title: Database Management System via PHP-My SQL**

Project types:

1. **Electronic Voting System**
2. **Online Healthcare System**

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1. **Introduction**

The database management system via PHP-MySQL remains an easier way to convey and store information and deliver online services with the minimal expense runnable on private servers of organizations to reduce traffic with the only expense of advanced security issues that needs to be worked upon.

**1.1 Purpose**

The purpose of the database management system is to host , record, display and control the data in a secured managed environment with ease of access and broad functionality.

**Voting Management System** can speed up election results and lower the cost of conducting an election by significantly reducing the number of people required to operate a polling place and tabulate results. A primary concern with e-voting, however, is how to store votes so they can be recounted if required. Future scope of this database lies with the integration of BLOCKCHAIN technology to make it more secure thus elimination the need of EVM(Electronic Voting Machines).

An online patient record framework in human services is a sort of clinical data framework, which is committed to gathering, putting away, controlling, and making accessible clinical data critical to the conveyance of patient consideration. The focal point of this framework is clinical information and not money related or charging data. Therefore services are provided with minimal expenses without a hectic hospitalized scheduling system.

**1.2 Document Conventions**

The standard format template of Software Requirement Specifications has been integrated in this report.

**1.3 Intended Audience and Reading Suggestions**

Among the two projects Electronic Voting system is intended for the Electoral Committee of a government for example state governments of India so that an online method of election using the backbone of this system integrating it with fingerprint can be implemented to eliminate the use of electronic voting machines aka. EVMs for eliminating the transport issue of EVMs and the Online Healthcare System to the Health Ministry of State governments for smooth conduction of medical services online in the immense pressure of the pandemic and vaccination programs.

The document is further intended for php developers who can integrate the projects with further use cases in the databases and Blockchain developers, Software testing officials who can further improve upon security making the database impervious to active and passive attacks.

**1.4 Product Scope**

The mentioned two products can be used by State governments and medical hospitals and clinics on a Non-Profit clause to provide secure and faster e-service with ensured security , ease of access and minimal expenses.

**2. Overall Description**

**2.1 Product Perspective**

Current voting procedures followed are throughout different countries are manual procedures. Voatz first tried to change this by creating an online voting app using blockchain which worked on the policy that one person one vote, but there was a security issue as the ballot was always being tracked back to the voter. Here in this project the ballot does not identify the voter and if the security issue of tracking down the voter id can be solved then this becomes the most viable voting software .

On the other hand the online health care management system is an extended version of the medlife online application but without the delivery of the medicine

**2.2 Product Functions**

Electronic voter lists and voter authentication. Part of an electronic voting system can be an electronic voter list, covering either a single polling station or the entire country. This list can be used to authenticate eligible voters and to record that they have cast their vote. •  Poll worker interfaces. Special functionalities that are only available to poll workers, for example, resetting the vote count at the opening of the polling station, closing polling, printing and transmission of results. •  Interfaces for casting votes. These include touch screens, optical mark recognition (OMR) ballot papers that are fed into a scanner, touch-sensitive tablets, push buttons, web pages or special client software for Internet voting. •  Special interfaces for handicapped voters. These include Braille or audio input devices for the blind, easier access for voters with physical disabilities, and simpler interfaces for illiterate voters.

The online scheduling systems are also known in many names such as online booking application, online scheduler, online scheduling software, and more. It is one of the most commonly used web-based applications and enables individuals to securely and conveniently book their reservations and requests online via a laptop, tablet, smartphone, computer, and other web-connected devices.

Anyone can access the online appointment management system via the URL provided by the healthcare or medical facility or through a “Book Now” button in the website. Once the time and date are selected, the system confirms the bookings automatically and also records it within the system instantly without any intervention from the staff.

The online appointment management system also comes with features like automated text and email message reminders, which is sent to the booked patients or individuals on the date booked before their scheduled time of booking. The flexibility of the online appointment management system in healthcare includes

* Booking inoculations and vaccine in hospitals.
* Scheduling a patient’s treatment, services, and appointments.

**Time-Saving:**

The staff spends less time on managing appointments, and phone booking, and can, therefore, use their free time for more urgent and vital tasks. The patients can also save time as there is no need for calling the hospital and booking an appointment in the middle of their busy schedule.

For example, consider a large medical facility hospital which schedules 100 plus appointments daily. Every appointment calls are handled by the support staff from the administration, and they spend approximately 3 to 4 minutes on a phone call.

In this case, if the healthcare facility switches to an online booking system it can save most of their time and also get more time to deal with other pressing tasks in the facility.

**Monetary Savings:**

The time savings made by the facility can translate automatically into monetary savings as a reduction in services and staff translates into a reduction in expenses. The appointment management system can reduce the need for extra human resources created by the process of appointment scheduling.

**24 hours convenience:**

An individual is needed to schedule an appointment over the phone calls during the office hours, and therefore people need to work round the clock on the phone booking. With online appointment management system, the individual or the patient can book an appointment any time. It is seen that after business hours there is more than 55 percent of all appointments booked through online scheduling appointment systems.

**Online Payment:**

Every service needs a secure payment system. As an online appointment management system is safe, and the data is kept secure, people find themselves comfortable with online payments. Offering a free consultation or discounts on consultation fees within the limited period after the initial consultation encourages the individual patients to make use of the online appointment management system every time to book the appointment.

Healthcare providers are making use of the latest technology and keeping themselves updated to enhance quality. The online appointment scheduling system is considered to be a step forward to bring a healthcare facility to the future.

Making the workflow perfect, enhancing data reporting and capturing, improving efficiency and time savings, providing the patient with significant convenience and choice, thereby enhancing the patient loyalty and trust are some important benefits of an online appointment management system.

**Centralized Information System:**

Online systems make patient management easier and more efficient. Some online scheduling systems for appointments also have management of patient health records as part of the package. The organization can create a single point from which to save, update, manage and analyze patient information.

Recording, reporting and analyzing such information helps to efficiently manage the case file of a patient. All regularly recorded patient information, along with a history of check-ups and associated medical tests, can be used to make educated, carefully considered health care decisions. This can reduce the amount of documentation and the time it takes to access physical files.

It is also possible to avoid redundant data entries about the same patient. In addition, the ongoing records of the patient can be updated at each appointment, making patient information available for easy and fast access in one place. This is important when two different practitioners are consulted at the same facility by a patient.

**2.4 Operating Environment**

* **Browser used:**          IE8, Google Chrome, Opera Mozilla
* **Software used:**         WAMP/ XAMPP/ LAMP/MAMP

**2.5 Design and Implementation Constraints**

In electronic voting system the fact that ballot ID can be traced back to the voter may cause an identity theft which is the prime security issue.

**External Interface Requirements**

No external user interface required

**3.1 User Interfaces**

The user interface of electronic voting system contains dashboard, votes, voters, position, candidates, ballot position and election title.

The user interface of online healthcare management system contains dashboard, accounts, patients and sections

**3.2 Hardware Interfaces**

Not required

**3.3 Software Interfaces**

Interface built through html , javascript and jquery and linked to My Sql database displayable on server

**4. System Features**

Both the projects contain some common and some unique set of features.

**4.1 System Feature 1**

## Features of  Electronic Voting System in PHP MySQL

* Vote preview
* Multiple votes
* Result tally via Horizontal Barchart
* Print voting result in PDF
* Changeable order of positions to show in ballot
* CRUD voters
* CRUD candidates
* CRUD positions

**4.2 System Feature 2**

## Features of  Online healthcare management System in PHP MySQL

**⌨️Features of this System ⌨️**  
**⭐️Client Side ⭐️**  
– Login/Logout Nurse/Staff as a user  
– View Patients  
– View Medical Records  
– View Complaints  
– Monitor Patients  
**⭐️Admin Side ⭐️**  
– User Management  
– CRUD – Patients  
– Admit/Admit Patients  
– Complaints/Illness Dashboard  
– Monitor Patients  
– Create history of complaints using graphs  
– Integrated with graphs and tables for monitoring complaints of patients.

**5.1 Performance Requirements**

Browser, installed Xampp / Wamp server

**5.3 Security Requirements**

Blockchain integration is required which will prevent data being traced back to its user.

**5.4 Software Quality Attributes**

Some to consider are: adaptability, availability, correctness, flexibility, interoperability, maintainability, portability, reliability, reusability, robustness, testability, and usability.

It is adaptable and portable at any system as the database can be imported on My SQL over a secure connection n any private server. Availability is high as technology used is common and supportive of maximum systems. Correctness of data is assured to the maximum. Data can be dropped and limit of data can also be set therefore its expandable and flexible. Due to having a client side and an user side its maintenance can be strictly monitored. It is not completely secure.

**5.5 Business Rules**

Non-Profit