**Part 2**

**Project Proposal**

Saint Leo University

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**PROJECT PROPOSAL**

**Introduction**

Our proposed Hospital Management System (HMS) is a software solution that will help healthcare organizations manage their day-to-day operations more efficiently. This HMS will be developed using HTML, CSS, JavaScript and backend like PHP and MySQL hosted in Azure Cloud in Azure Cloud. The system will provide a range of features and functionalities that make it easier for healthcare professionals to manage patient data, appointments, billing and payments, electronic medical records, reporting and analytics, security, and compliance. By leveraging the latest technologies and following best practices, we aim to create a scalable, secure, and user-friendly HMS that supports the goals of your healthcare organization.

**Diagnosis of the problem**

The healthcare industry has been growing at an unprecedented pace. However, healthcare providers are still grappling with traditional paper-based systems that are **Inefficient and time-consuming:** The manual management of patient records, prescriptions, and appointments is one of the most significant issues in the

healthcare industry. As a result, healthcare providers face a range of challenges, including:

**Inefficiency and errors**: Paper-based systems are prone to errors, and

healthcare providers may struggle to manage large amounts of patient data. As a result, healthcare providers may fail to provide adequate patient care, which can harm their reputation and lead to legal issues.

**Delayed patient care**: Patients often must wait for long periods to

register or schedule appointments, which can be frustrating and stressful. This can lead to lower patient satisfaction and reduced patient retention.

Inadequate resource management: Healthcare providers may struggle to manage resources effectively, which can lead to higher costs, inefficient use of staff time, and lower productivity.

**Prescription of the Solution**: To address these challenges, we propose the development of a Hospital Management System. The system is a web-based application that allows healthcare providers to manage patient data, appointments, and prescriptions electronically. The Hospital Management System is designed to be scalable and customizable, making it suitable for hospitals of all sizes and specialties.

**The system's main features include:**

**Patient registration**: The Hospital Management System allows patients to register online, eliminating the need for them to wait in long queues.

**Appointment scheduling:** The system enables patients to book

appointments online, allowing them to select a convenient time and date.

**Electronic prescriptions:** The Hospital Management System enables doctors to prescribe medications electronically, eliminating the need for paper prescriptions.

**Medical records**: The system allows doctors to access patient records electronically, reducing the need for manual records.

**Resource management**: The Hospital Management System allows healthcare providers to manage resources effectively, reducing costs and improving staff productivity.

# Expected Business Value:

The Hospital Management System is expected to deliver significant business value to hospitals and healthcare providers. By digitizing patient data and automating key processes, the system can reduce costs, improve efficiency, and enhance patient satisfaction. The system is designed to be scalable and customizable, making it suitable for hospitals of all sizes and specialties.

The Hospital Management System is also expected to improve healthcare providers' reputation by delivering high-quality care to patients. By reducing waiting times, healthcare providers can improve patient satisfaction and

retention. This, in turn, can lead to increased revenue and profitability.

Furthermore, the Hospital Management System can improve healthcare providers' compliance with regulatory requirements. The system can track patient data and activities, enabling healthcare providers to meet regulatory standards and

requirements.

# Work Plan:

# The development of the Hospital Management System will involve several key phases:

**1. Design phase**: The first phase will be the design phase, where the requirements for the system will be defined, and the technical architecture will be established. This phase will also involve selecting the appropriate

technologies and tools for the development of the system.

**2.Development phase:** The second phase will be the development phase,

where the system will be built and tested. This phase will involve designing the database schema, building the user interface, and developing the

application logic. During this phase, the system will be tested for performance, scalability, and reliability.

**3.Deployment phase**: The third phase will be the deployment phase, where the system will be deployed to a production environment. This phase will involve configuring the server environment, setting up the database, and configuring the application. Once the system is deployed, it will be tested to ensure that it is functioning correctly and that all features are working as expected.

**4. Maintenance phase**: The final phase will be the maintenance phase, where the system will be monitored, updated, and maintained. This phase where the system will be monitored, updated, and maintained. This phase will involve regular updates to the system to fix any issues, add new features, or improve performance. The maintenance phase will also involve providing technical support to users and ensuring that the system is running smoothly at all times.

In summary, the Hospital Management System proposed in this project is expected to address the challenges of manual processes in managing patient records, appointments, and prescriptions. The system is designed to improve patient care and satisfaction, increase staff productivity, and reduce errors and inefficiencies associated with paper-based systems. The system is expected to deliver significant business value to hospitals and healthcare providers by

digitizing patient data and automating key processes. The project will involve several phases, including design, development, deployment, and maintenance, and will require the use of appropriate technologies and tools.

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# Discussion and Analysis

The team will need to use a combination of agile and waterfall methodologies to develop the application system. This will require the team to use GitHub for version control and project tasking and create a README for their project. we will need to incorporate the 10 tips for successful EA into their proposal and complete a System Requirements Review (SRR) and a Preliminary Design Review (PDR).

Once the proposal, SRR and PDR are completed, the team will need to develop a working application system using cloud computing technologies. We need to identify and organize cloud computing resources, tools and services for the application system and develop the application system using any language. The project should include components to ensure usability, reliability, security and scalability.

**Timeline**

The timeline for this project is as follows:

1.Requirement gathering and analysis: 1 week

2.System design and architecture: 2 weeks

3.Development and testing: 8 weeks

4.Deployment and training: 1 week

5.Ongoing maintenance and support: Ongoing

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