

WEB-BASED MEDICAL CENTER MANAGEMENT SYSTEM

BUSINESS CASE

MGTE 31212 – PROJECT MANAGEMENT

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TABLE OF CONTENTS

1. EXECUTIVE SUMMARY.....	3
1.1. Issue	3
1.2. Anticipated Outcomes	3
1.3. Recommendation.....	3
1.4. Justification	4
2. PROBLEM DEFINITION.....	4
2.1. Problem Statement	4
2.2. Organizational Impact.....	5
2.3. Technology Migration	5
3. PROJECT OVERVIEW	5
3.1. Project Description.....	6
3.2. Goals and Objectives.....	6
3.3. Project Performance	6
3.4. Project Assumptions	7
3.5. Project Constraints.....	7
3.6. Major Project Milestones.....	7
4. STRATEGIC ALIGNMENT.....	8
5. COST BENEFIT ANALYSIS.....	8
6. ALTERNATIVES ANALYSIS	9
7. APPROVALS	9

1. EXECUTIVE SUMMARY

This business case outlines how the Web based Medical Centre Management System implementation Project for a medical center situated in Veyangoda, will address current business concerns, the benefits of the project, and recommendations and justification of the project. The business case also discusses detailed project goals, performance measures, assumptions, constraints, and alternative options.

1.1. Issue

As a business initiated more than 20 years ago, which used physical method of storing and managing data up until today. This has led to number of inefficiencies during their day-to-day processes. time wastage and poor utilization of space are some of the issues. This would harm the effectiveness of the service as well as the customer satisfaction. That is why this issue needs to be addressed. A web-based application to manage this medical center would be appropriate to enhance the effectiveness of different processes and their integration.

1.2. Anticipated Outcomes

By implementing a web-based Medical Center Management System, it will lead to better integration and automation of activities. The human inputs needed will be reduced saving more time and information needed to different stakeholders will be available with an instance. Patient, inventory, supplier, staff management will ensure that each these aspects are operating in a more productive manner. Apart from that, there will be more security in term of confidential information such as patients records as there will be authority restrictions within the system. Moreover, the owner can get needed reports from the system which would enhance the activity of monitoring and controlling the performance of the business.

1.3. Recommendation

The before mentioned issue can be overcome by this application with the different functions and features of it. This will be achieved by the automation of different activities as mentioned below,

- Doctor will be able to view the patient history with an instance and all the reports and other details relevant to a particular patient.
- The billing process of a patient will also be automated by a point of sales function.

- Adding updating and removing of inventory items, stocks, supplier records, staff records are also carried out using the application.

1.4. Justification

This implementation which transforming the business processes from a physical form to a more automated manner has high impacts on the business and its day-to-day activities. The following outcomes can be expected with the transferring from physical operations to automated activities,

- It decreases an average time a patient must stay at the premises.
- It decreases the time taken to generate different type of reports.
- It decreases the time to send out a purchase order for a supplier and reduces stock outages.
- It increases employee satisfaction as their roles becomes easier and quick.

2. PROBLEM DEFINITION

2.1. Problem Statement

With the continuation of the business for than two decades in a traditional way, has accumulated number of defects in their processes which are not acceptable in the current context of running a business. These problems are,

- All the data are stored and handled manually leading for higher inefficiencies to arise.
- Updating past records becomes difficult.
- Records takes up a significant space as the organizations has initiated long time back.
- All the employees at the medical center can access these data leading to higher insecurities.
- Lack of database with supplier details.
- Inventory of drugs is not being managed in a proper way.
- No records of invoices are being held.
- Activities are exposed to human errors.

2.2. Organizational Impact

This project would change the way that the organization doing different tasks, processes and the roles while adding up new tools to support the application.

Tools/Hardware: new personal computers need to be installed for roles receptionist, dispenser, doctor. Also, a printers needs to be there to print out bills and prescriptions. Internet facilities needs to be obtained for the medical center.

Processes: The handling of a patient visit from the arrival to the billing will be directed through the application. Data inputs will be done instead of physical record keeping.

Software: the staff needs to change to using software which they are not familiar with doing before at the medical center.

2.3. Technology Migration

Technology migration for the current process to the web application will be happening under three major stages which are,

Phase I: The hardware software and other requirement to launch the web application will be covered in the phase 1.

Phase II: A partial implementation will take place to avoid major changes in the day-to-day operations and for the system to get enough data to be ready for the training.

Phase III: The website will be implemented with the training is going on for the staff and the training will be concluded at the closing of the project.

3. PROJECT OVERVIEW

The Project overview will cover how the business problem of this medical center in addressed. The overview consists of a project description, goals and objectives, project performance criteria, project assumptions, constraints, and major milestones. As the project is approved and moves forward, each of these components will be expanded to include a greater level of detail in working toward the project plan.

3.1. Project Description

This project involves two major areas which are patient management and inventory management. From the arrival of a patient to his billing all the functions will be carried out using the application which is patient management.

Inventory Management involves sending out purchase orders, stocking and adding updating, viewing, and removing inventory items.

Apart from these two, staff management, notification system, Supplier management, report generation are other areas which this project wishes to cover.

3.2. Goals and Objectives

The following table lists the business goals and objectives that this Project aims to achieve:

- To reduce physical and manual data stores
- Eliminating data redundancy
- Manage patient records to keep track on the patient history
- Managing employee records
- Managing supplier records
- Managing transaction records and details
- To increase the productivity of the overall process with immediate retrieval of information
- Easily identify the inventory levels
- To place an order to suppliers once low inventory levels are identified
- Analyzing the performance with reports

3.3. Project Performance

The following table lists the key resources, processes, or services and their anticipated business outcomes in measuring the performance of the project. These performance measures will be quantified and further defined in the detailed project plan.

Key Resource/Process/Service	Performance Measure
Consultation	Eliminates the time to record a consultation by a doctor
Purchase orders	Decreases the time and activities needed to send out a purchase order
Digital Database	Integrates different functions and eliminate data redundancies

3.4. Project Assumptions

The following assumptions apply to this Project. There will be more assumptions occurring as the project goes through to further stages.

- The staff will be trained to carry out different functions in the application.
- Funding is available for training.
- The hardware and Software requirements will be funded.
- The staff will accept the change with less resistance.

3.5. Project Constraints

The following constraints apply to this Project. There will be more constraints occurring as the project goes through to further stages.

- There are limited financial resources to outsource the project to an expertise service.
- There is less customization from the products that are available in the market.

3.6. Major Project Milestones

The following are the major project milestones identified at this time. As the project planning moves forward and the schedule is developed, the milestones and their target completion dates will be modified, adjusted, and finalized as necessary to establish the baseline schedule.

Milestones/Deliverables	Target Date
Project Charter	01/6/2021
Project Plan Review and Completion	03/06/2021
Project Kickoff	03/7/2021
Phase I Complete	10/7/2021
Phase II Complete	20/7/2021
Phase III Complete	30/8/2021
Closeout/Project Completion	30/9/2021

4. STRATEGIC ALIGNMENT

This project will directly impact the strategic plans of this business which are patient management, inventory and procurement management and human capital management.

Plan	Goals/Objectives	Relationship to Project
Strategic plan for customer/patient management	Improve record keeping and information management of patients	This project improves patient management with data entry operations and making information available with an instance.
Strategic plan for inventory and procurement planning	Reduce stock outages and improve tracking inventory	This project provides better inventory management functions and automated supplier order sending which would minimize inefficiencies.
Strategic plan for managing Human Capital	Differentiate function between each role and protecting stakeholder confidentiality	This project will allow different employees to access authorized information only for their roles. This makes sure the confidentiality of the patients is protected at all times.

5. COST BENEFIT ANALYSIS

The following table illustrates the costs involved with the implementation of this project. The benefits are mostly non-financial which is harder to measure in monetary terms.

Action	Action Type	Amount
System Development	Cost	Rs. 10,000
Domain Purchase	Cost	Rs. 3500
Initial hosting cost	Cost	Rs. 10000
Maintenance cost(monthly)	Cost	Rs. 10,000
Total costs (First Year)		Rs. 143000

Based on this, the project only costs Rs. 143000 for the first whole year, which is acceptable compared to non-financial benefits this organization gains. It would indirectly affect the financial performance of the business and can be considered as a long-term investment.

6. ALTERNATIVES ANALYSIS

The following alternative options are there when considering the current business problem. They were not chosen for different reasons as mentioned below.

No Project (Status Quo)	Reasons For Not Selecting Alternative
Continue the traditional methods and processes.	<ul style="list-style-type: none"> Continuation of the problem. Hard to account for scalability. Fail to gain competitive advantages.
Alternative Option	Reasons For Not Selecting Alternative
Outsource the implementation of a web-based platform.	<ul style="list-style-type: none"> Higher costs involved.
Alternative Option	Reasons For Not Selecting Alternative
Purchase a readily available stand-alone software.	<ul style="list-style-type: none"> Lack of customization for this particular medical center. Unnecessary features which are not useful but add up to the cost. Unable to solve the current issues of this medical center.

7. APPROVALS

The signatures of the people below indicate an understanding in the purpose and content of this document by those signing it. By signing this document, you indicate that you approve

of the proposed project outlined in this business case and that the next steps may be taken to create a formal project in accordance with the details outlined herein.

Approver Name	Title	Signature	Date
Prof. Janaka Wijayanayake	Project Supervisor		