



## Sri Lanka Institute of Information Technology

### PROJECT CHARTER

The purpose of this form is to allow 2<sup>nd</sup> year students of the B.Sc. (Hon) degree program to enlist in the 2<sup>nd</sup> year project group. The description of the project entered on this form will not be considered as the formal project proposal. It should however indicate the scope of the project and provide the main potential outcome.

PROJECT TITLE	Pharmaceutical Management System		
GROUP NUMBER	03	(will be assigned by the lecture in charge)	

#### PROJECT GROUP MEMBER DETAILS: (Please start with group leader's details)

	STUDENT NAME	STUDENT NO.	CONTACT NO.	EMAIL ADDRESS
1	WIJESINGHE A.G.T.	IT22319142	0771462980	it22319142@my.sliit.lk
2	THENNAKOON T.A.C.S.	IT22310996	0761221003	it22310996@my.sliit.lk
3	KANDAGE K.T.S.	IT22364692	0742053220	it22364692@my.sliit.lk
4	RATHNAYAKA R.M.T.D.	IT22884138	0788942136	it22884138@my.sliit.lk

## PROJECT DETAILS

### 1. INTRODUCTION

#### 1. Purpose of Project Charter:

The “Pharmaceutical Management System” for “Medicare Pharmaceuticals” project charter documents and tracks the necessary information required by decision maker(s) to approve the project for funding. The project charter should include the needs, scope, justification, and resource commitment as well as the project’s sponsor(s) decision to proceed or not to proceed with the project. It is created during the Initiating Phase of the project.

---

### 2. BRIEF DESCRIPTION OF YOUR PROJECT

#### 2.1. Brief Description of the Project:

This project aims to develop a "Desktop Pharmaceutical Management Application" for internal use within "Medicare Pharmaceuticals," which is currently using a manual system. It automates and streamlines key business functions of "Medicare Pharmaceuticals," such as managing drug inventories and stock tables, handling supplier information, managing customers using loyalty point computations, and managing employee attendance and salaries.

The purchase of medicines, order management with the ability to calculate the entire order amount and generate discounts, report production, and automatic billing and invoicing for effective sales management will all be made easier by it. The project is anticipated to be completed in 13 weeks, and for this all-inclusive solution, the projected project budget is Rs. 565,000.

---

### 3. JUSTIFICATION

#### 3.1 Business Need

Currently, the client uses a manual system to conduct the key business functions such as Medicine Inventory and Stock management, Supplier and Employee Management, Customer Details management and Order Details management, and Sales and Billing management, which is error-prone and inefficient. To address this issue, the project aims to automate Medicine Inventory Management by introducing functionalities such as adding, updating, and deleting medicines, real-time data for stock management, and expiration date calculations. This function directly contributes to cost savings by reducing the risk of stockouts.

Moreover, Supplier and Employee Management will be streamlined with features like Supplier details management, re-ordering stocks via emails, and employee attendance and salary tracking. In the Customer Details Management, the loyalty point calculation function helps in building stronger customer relationships through rewards based on loyalty points. Order Details Management also will see improvements through error handling for insufficient stock, unit price calculations, managing the status of the current order, and comprehensive order reports.

The Sales and Billing Management aspect will focus on automating processes like net amount calculations, discount generation, and the analysis of monthly sales and profits. The overarching objective is to transition from manual to automated systems, optimizing operations for "Medicare Pharmaceuticals" and enhancing overall efficiency, accuracy, and strategic decision-making capabilities.

---

### 3.1 Business Impact

- **Effective Inventory Management:** By automating the process of adding, updating, and removing medicines from the inventory, errors are minimized, and real-time data accuracy is guaranteed.
- **Better Stock Management:** By monitoring the expired stock and lowering losses, real-time data on medicine expiration dates facilitates improved stock management.
- **Improvement of Supplier Relationships:** Effective management of supplier information guarantees better supplier relationships.
- **Improved Customer Service:** More efficient customer registration, updates, and loyalty point calculations lead to customer satisfaction and service.
- **Employee Productivity:** Streamlined HR procedures and enhanced productivity are the results of effective employee management, attendance monitoring, and salary calculation.
- **Order accuracy:** By ensuring correctness and minimizing errors in order processing, real-time order details management helps to avoid problems like requested orders with a small quantity.
- **Data-Driven Decision Making:** By offering information on product demand, order reports facilitate data-driven decision-making and the optimization of sales and inventory plans.
- **Customer Loyalty:** Recurring sales and client retention are enhanced by offering discounts and loyalty points to devoted patrons.
- **Financial Accuracy:** Discounts and automated net amount calculations guarantee proper billing, minimizing mistakes and disputes.
- **Business Analysis:** By revealing information about product performance, monthly sales analysis helps identify top-selling medicines and optimize marketing and inventory tactics.
- **Financial Reporting:** The business may plan for growth and profitability with the assistance of monthly profit and sales reports, which aid with educated financial decision-making.

## 4. SCOPE

### 4.1 Description of the Solution:

The proposed solution involves developing a desktop pharmaceutical application for "Medicare Pharmaceuticals" using Java language, which would automate and streamline the company's present manual business operations. First off, users can add, update, and delete medicines, search for available medicines, and manage stock using real-time data through the Medicine Inventory Management and Stock Details Management function. The second function, which is dedicated to Supplier and Employee Management, allows you to manage supplier details and employee details by enabling to add, update, search and delete supplier and employee details, manage attendance of an employee, calculate the salary of an employee based on their monthly attendance. It also includes the insufficient stocks re-ordering feature which help pharmacist to contact the specific supplier via emails. Customer Details Management and Order Details Management, the third function, makes it easier to calculate loyalty points of a registered customer, add, update, search for, and delete order details and customer details, and track the number of dates to expire of each stock. It also generates order reports and error warnings for insufficient medicine amounts. The sales and billing function involves calculating net amounts, discounts, and generating receipts. In conclusion, it aims to improve efficiency and the accuracy of the whole business process.

### 4.2 Main Expected Outcomes of the Project:

Desktop Pharmaceutical Management Application for "Medicare Pharmaceuticals."

### 4.3 Boundaries:

#### Inclusive boundaries:

- Project scope is focused on developing a Desktop Pharmaceutical Management System using Java programming language, which is specific for "Medicare Pharmaceuticals."
- The application is based on the four key business functions: Medicine Inventory Management and Supplier Details Management, Customer management and Employee management, Order Details management, and Sales and billing management.

#### Exclusive boundaries:

- Integration with platforms or external systems beyond the scope of the project.
- Implementation of features outside of the key business functions mentioned.
- Hardware needs or device considerations.
- The initiative does not specifically address regulatory compliance difficulties.
- Development of the application's web or mobile editions.
- Localization for various languages or geographic contexts.
- Creation of further modules or unspecified functions.
- Network considerations for remote connectivity or many users.
- Integration of third-party software or APIs, unless specifically indicated in the project.

## 5. BUDGET & TIME ESTIMATIONS

### 5.1 Executive Milestones:

Week	Date	Task
<b>1</b>	5 <sup>th</sup> February – 11 <sup>th</sup> February	Project Team Decided
<b>2</b>	12 <sup>th</sup> February – 18 <sup>th</sup> February	Project Charter Submission
<b>3 - 4</b>	19 <sup>th</sup> February – 27 <sup>th</sup> February	Project Proposal Presentation
<b>4</b>	28 <sup>th</sup> February – 1 <sup>st</sup> March	Project Proposal Submission
<b>4 - 5</b>	2 <sup>nd</sup> March – 7 <sup>th</sup> March	ER Diagram Submission
<b>5</b>	8 <sup>th</sup> March – 10 <sup>th</sup> March	SRS Document Submission
<b>6 - 7</b>	11 <sup>th</sup> March – 19 <sup>th</sup> March	Progress Presentation 1
<b>7 - 13</b>	20 <sup>th</sup> March – 30 <sup>th</sup> April	Progress Presentation 2
<b>13 - 15</b>	1 <sup>st</sup> May – 18 <sup>th</sup> May	Final Presentation
<b>15</b>	(One week after final exam)	Final Report Submission

## 5.2 Budget Estimation:

Budget Item	Total
Personnel.....	LKR 300,000.00
Contractual Services.....	LKR 60,000.00
Software	LKR 100,000.00
Utilities	LKR 30,000.00
Printing cost	LKR 15,000.00
Internet facility	LKR 10,000.00
Training & Deployment cost	LKR 50,000.00
<b>Total</b>	<b>LKR 565,000</b>

## 6. ASSUMPTIONS, CONSTRAINTS AND RISKS

### Assumptions:

- Only the pharmacist has access to the pharmaceutical management system and all the business functions will be managed by the pharmacist.
- The company will sell the medicines only.
- Main customers of this system will be doctors who run medical centers and local pharmacies.
- Only registered customers are allowed to place orders through the system.
- To supply medicines, a new supplier must be registered in the system first.
- A specific supplier supplies each medicine.
- Loyalty customers will be given 5% of the total amount of the order as a discount. (Initially, every customer will be given one loyalty point when they get registered to the system).
- Customers will be able to return their medicines within the first two weeks after the order is dispatched.
- Salary calculation of an employee will be done based on the daily rate and the monthly attendance.

### Constraints:

- **Budget Constraints:** The project's overall scope and the inclusion of specific elements may be impacted by budgetary constraints.
- **Technical Constraints:** The pace at which Java code is developed and troubleshooted may depend on the availability of technical resources and knowledge.
- **Integration Constraints:** There can be difficulties in integrating with third-party apps or current systems.
- **Compliance Constraints:** Throughout the development process, regulatory compliance and data protection regulations must be followed.
- **Infrastructure Constraints:** The speed and dependability of the network infrastructure at the medicine stock locations may have an impact on the system's performance.

**Risks:**

- Project consumer adjustments or unexpected technological difficulties may cause delays in development.
- If the pharmacist finds it difficult to adjust to the new system, there may be a risk to user acceptance.
- The likelihood of imprecise data entering could affect how trustworthy reports and computations are.
- During the development phase, modifications to pharmacy business procedures or regulations could need alterations to the application.

**7. WORKLOAD ALLOCATION** (Please provide a brief description about the workload allocation)

MEMBER 1	<b>WIJESINGHE A.G.T.</b> <b>(Employee Details Management &amp; Supplier Details Management)</b>
<ul style="list-style-type: none"> <li>• Add, update, and delete employee details.</li> <li>• View the registered employee list.</li> <li>• Search for registered employee details.</li> <li>• Store daily attendance of employees.</li> <li>• Calculate monthly salary for employees based on the monthly attendance.</li> <li>• Generate employee monthly salary reports based on the daily attendance.</li> <li>• Add, update, and delete supplier details.</li> <li>• Search for registered suppliers.</li> <li>• View registered supplier details.</li> </ul>	
MEMBER 2	<b>THEENAKOON T.A.C.S.</b> <b>(Sales Management &amp; Billing Management)</b>
<ul style="list-style-type: none"> <li>• Add, update, and delete receipt details.</li> <li>• View payment receipt.</li> <li>• Print payment receipts as PDFs.</li> <li>• Calculate the net amount of the order.</li> <li>• Calculate the loyalty points that will be added to the order based on the net amount.</li> <li>• Generate discounts for loyal customers.</li> <li>• Calculate the net amount after discounts.</li> <li>• Generate the final balance after payment.</li> <li>• Analyze monthly sales of each medicine.</li> <li>• Calculate overall net sales, best-selling medicine, and monthly revenue.</li> <li>• Generate monthly sales reports.</li> </ul>	

MEMBER 3	<b>KANDAGE K.T.S.</b> <b>(Medicine Inventory Management &amp; Stock Management)</b>
<ul style="list-style-type: none"><li>• Add, update, and delete medicines in inventory.</li><li>• Search for available medicines.</li><li>• Calculate expiration dates for specific medicines.</li><li>• View medicine inventory.</li><li>• Add, update, and delete Stock details.</li><li>• Search for available stocks.</li><li>• Real-time stock management based on data.</li><li>• Generate daily medicine inventory report.</li><li>• Re-order stocks by sending emails to suppliers.</li></ul>	




MEMBER 4	<b>RATHNAYAKA R.M.T.D.</b> <b>(Customer Details Management &amp; Order Management)</b>
<ul style="list-style-type: none"><li>• Add, update, and delete customer details.</li><li>• Search for registered customers.</li><li>• Calculate loyalty points for customers.</li><li>• View registered customer list.</li><li>• Add, update, search, and delete orders.</li><li>• View order list.</li><li>• Generate order status.</li><li>• Display error if the required medicine quantity is insufficient.</li><li>• Generate unit price and total amount for orders.</li><li>• Order return management.</li><li>• Generate order status reports.</li></ul>	



## DECLARATION

“We declare that the project would involve material prepared by the Group members and that it would not fully or partially incorporate any material prepared by other persons for a fee or free of charge or that it would include material previously submitted by a candidate for a Degree or Diploma in any other University or Institute of Higher Learning and that, to the best of our knowledge and belief, it would not incorporate any material previously published or written by another person in relation to another project except with prior written approval from the lecturer of the module and that such unauthorized reproductions will construe offences punishable under the SLIIT Regulations.

We are aware, that if we are found guilty of the above-mentioned offences or any project related plagiarism, the SLIIT has right to suspend the project at any time and or to suspend us from the examination and or from the Institution for minimum period of one year.”

	STUDENT NAME	STUDENT NO.	SIGNATURE
1	(GROUP LEADER) WIJESINGHE A.G.T.	IT22319142	
2	THENNAKOON T.A.C.S.	IT22310996	
3	KANDAGE K.T.S.	IT22364692	
4	RATHNAYAKA R.M.T.D.	IT22884138	