CSE1005: Software Engineering - Embedded Lab Report

# **WEB BASED BILLING SOFTWARE**

## I. Our Team:

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# II. Report:

# 1. Feasibility Study:

The key consideration involved in the feasibility study are:

# a. Technical Feasibility:

S. No.	Tools / Technology needed	Description and uses	Type
1.	HTML5	Appearance of website	Front-end Software
2.	CSS3	Adding style and presentation to the web-pages	Front-end Software
3.	JavaScript	Adding interactive user behavior to web pages	Front-end Software
4.	Bootstrap	front-end framework used for UI	Front-end Software
5.	PHP	Server side programming and interactive with phpMyAdmin	Back-end Software
6.	MySQL	For the purpose of a web database and logging application	Database Software

7.	phpMyAdmin	Management of databases, tables, Database indexes, permissions Software	
8.	Lucidchart	a web-based proprietary platform to collaborate on drawing charts and diagrams  Design To Software	
9.	Heroku	a container-based cloud Platform as a Service to deploy, manage, scale apps	Cloud Platform Software
10.	Visual Studio Code	a code editor redefined, optimized for building, debugging web apps Softw	
11.	Chrome	a cross-platform web browser	Software
12.	Windows 10	an operating system for building apps	OS
13.	PC / Laptop	Intel based processor-run computer system, which have keyboard and mouse as input devices.	Hardware

## b. Behavioural Feasibility:

An assessment of end-user behavior that may have an impact on the system's Encirclement. People are naturally reluctant to change, and computers must be cognizant of this in order to support changes.

Since the proposed system's sole purpose is to meet information demands, no employees would lose their jobs as a result of it. Because it supports the organization and its strategic objective, this software solution is also possible for enterprises.

## c. Economic Feasibility:

Туре	Quantity	Figures
Human Power	5 to 6 members	\$25 - \$30 per day per head
Software	-	\$40 - \$50 approx
Hardware	3 or 4 sets	\$80 - \$100 approx

Total estimated budget - \$4000 - \$4500

#### d. Timeline:

Schedule	Phase	
1st week	Planning, Communication	
2nd week	Design	
3rd week	Development, Coding	
4th week	Testing, Deployment	

## 2. Problem Analysis:

- a. Account creation module (Sign in, Sign up)
- **b.** Bill Generation module (Create, Read, Update, Save)
- c. Invoice Printing module (Print, Download)
- **d.** Bill Calculation Module (Math, computation)
- **e.** Admin module (Managing user modules)
- f. Product Shorthand notation module
- g. Random giveaway generator module
- **h.** Logout module (Account Delete)

#### **3.** Literature Survey:

#### i. Problem Definition:

This project is an application to automate the process of billing and managing a Departmental store.

#### ii. Understand the Root Causes:

Existing systems include a lot of paperwork and require a lot of manual labour; this may be remedied by automating the process with a web-based GUI.

### iii. Identify the Stakeholder and Users:

**Stakeholders** - admin, developers, target audience, funders, clients.

<u>Users</u> - Businessmen, Enterprises, Shopkeepers, Vendors, Govt., officers.

# iv. Identifying the constraints to be imposed on the solution:

- a. Customers without Internet Access.
- **b.** Information Privacy.
- **c.** not cost-effective for small scale business owners.

# 4. Infrastructure Requirements:

Infrastructure requirements identify the capabilities, characteristics, or traits that an infrastructure must (or should) have in order to run the application.

S. No.	Categories of Infrastructure	Figures
1.	Performance	Intel Core i5 3rd Gen processor (i5 3450 3.1 GHz) or above (Depends on the number of clients)  RAM: 2GB or above  OS: Windows 7 (all editions) or Windows 8 or Windows 10
2.	Resources	Work Resources: 5 - 6 people Cost Resources: 4000\$ - 4500\$ Material Resources: Stable Internet Connection  Hardware Requirements RAM - 8GB or above Intel Core i5 3rd Gen processor (i5 3450 3.1 GHz)or Above  Software Requirements: Xampp, PHP, Any IDE
3.	Geographical	There are no specific requirements; it may be accomplished from anywhere with a reliable internet connection.
4.	Others	None