TRIBHUVAN UNIVERSITY

"LAUNDRY MANAGEMENT SYSTEM"

A PROJECT PROPOSAL

Submitted to:

Faculty of Humanities and Social Sciences

Mahendra Morang Adarsha Multiple Campus

Biratnagar, Morang, Nepal

In partial fulfillment of the requirements for the Bachelors in Computer Application

Submitted By:

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1. Introduction

Laundry firms presently use a manual system for the management and maintenance of critical information. The current system needs a lot of paper forms, with data stores spread throughout the laundry management infrastructure. Often information (on forms) is incomplete or does not follow management standards. Records are often lost in transit during computation requiring a comprehensive auditing process to ensure that no vital information is lost. Multiple copies of the same information exist in the laundry firm data and may lead to inconsistencies in data in various data stores. [1]

A significant part of the operation of any laundry firm involves the acquisition, management and timely retrieval of great volumes of information. This information typically involves; customer personal information and clothing records history, user information, price of delivery and retrieval period, users scheduling as regards customers details and dealings in service rendered, also our products package waiting list. [1] All of this information must be managed in an efficient and cost-wise fashion so that the organization resources may be effectively utilized.

The purpose of laundry management system is to computerize the management of the laundry firm making it more efficient and error free. It aims at standardizing data, consolidating data ensuring data integrity and reducing inconsistencies, through the use of highly computerized process that is stress free, reliable and quick through the use of PHP computer programming language and SQL database application to both the users and the staff in charge of the registration and laundry management processes. HTML, CSS and JS would be at the front-end and provide the graphical user interface that relates with the user, while the PHP and SQL database will be at the back-end to handle the data storage process.

2. Problem Statement

The Laundry business are using manual system which provide services only during office hours. So customers have limited time to make any transactions. The existence of the manual Laundry management system nowadays has overcome the limitation of the business operation hours. However, there are many business for Laundry and cleaning service but no any system for them. Besides that, there are

some customers who faced a problem in locating the suitable laundry and dry cleaning services around them. The manual system data is impropriate managed, every time customer send their clothes, staffs need to record their information such as name address, phone number using book record.

- To get Laundry service a prospective customer must go to the nearest office to register as a client.
- Laundry service that provide difficulties to make booking are not advertised on the internet or web application and the manual system involve a lot of paper work and consumer time.
- The current Laundry management system has poor reporting or communication.
- The manual system create workload for the staff to keep and obtain customer and staff information

3. Objectives

The proposed web-based system has the following features that will be included in the online Laundry system. With the proposed system, the achievable advantages are as follows:

- To develop a function that customer can be able to make booking for cleaning services.
- To develop a system that will have a proper reporting/communication pattern between the Business owner and customer.
- To develop a function that customer can post suggestion, comment and complain.

4. Methodology

4.1. Requirement Identification

4.1.1. Study of Existing System

The system of managing the information related to a laundry was done manually by doing various paper works till the advancement of the technology. All the records relating to laundry like customer, cloth, delivery and financial information had to be managed on paper. So, if there were any mistakes in any of the record it has to

be rectified in every field where it is related manually. This would create delay in the operation of the laundry business resulting decline of goodwill of business. Thus, the manual work was more and system was more complex. Thus, in our project desktops or laptops will be used to maintain the details of the business which consequently decrease the paper work and the system efficient with less complexity.

Some of the existing laundry services which even provide their services online and use computerized method for recording information established in our country are:

- **washmandu.com**

  Washmandu provides the smart laundry solution to all our laundry woes. They provide washing, steam ironing and other value added services to make our life free of laundry hassles. On their websites user don't have to login for accessing the services however as if they subscribe to their services they can get or enjoy the perks available or provided by the firm. Also unsubscribed users/customers can place orders for their laundries to be washed/cleaned. They have user friendly user-interface where a customer having less technological habit of using such systems can easily navigate through their websites. A customer can easily view the price list of different types of laundry available. They offer free pickup and delivery. [2]

- **HobyClean**

  HobyClean a product of Appleton Group LLC, is the world's first and largest Online On-Demand Laundry E-commerce system providing access to a global network of cost effective, efficient and high-quality laundry services through their Online On-Demand platform and mobile apps (iOS and Android). Appleton Group LLC, a "Global Technology Corporation (Group)" is a Delaware (US) registered Limited Liability Company (LLC), established with the vision of **"Leading globally sustainable digital consumption"** and a Mission of **"Driving sustainable human transformation and superior consumer flexible consumption success through digital transformation, technology and innovation"**. Appleton Group LLC is a group leader in the Digital Consumption Section of the Technology Industry. **HobyClean** is managed by a global cohort of industry experts. [3]

- **LaundroKart**

  LaundroKart is an **On-Demand Laundry** and Dry-Cleaning service company, presently operating in Bengaluru. They provide an affordable and convenient way of getting our laundry done right at our finger-tips. They offer the best **online laundry service in Bengaluru (India)** and help clients get rid of those extra pile of dirty clothes and deliver them fresh clothes. [4]

- **Pick My Laundry**

  Pick My Laundry provides premium washing and dry cleaning service leveraging mobile based technology. They pick up our dirty duds from our doorstep and deliver fresh, clean clothes back at our doorstep. Pick My Laundry provides affordable and convenient way of getting our wash, laundry and dry-clean done with prime quality. Their instant pickup at a slot chosen by us with a turnaround time of 48 hours provides us laundry and dry cleaning with best quality. The processing of washing, laundry and dry cleaning is done in best-class setups with Italian equipment and German chemicals. They also do laundry with antiseptic wash, fabric softener and hygienic detergents. [5]

4.1.2. Requirement Collection

- **<u>Functional Requirements</u>**

  Functional requirements are product features or functions that as a developer one must implement to enable users to accomplish their tasks. So, it's important to make them clear both for the development team and the stakeholders. Generally, functional requirements describe system behavior under specific conditions. Some of such requirements needed for our laundry management system are:

  - Only authentic user must have access to the system.
  - Orders can be placed only after client/customer login to the system using authentic credentials.
  - After logging in client must be able to:
    I. Place the order to wash laundry.
    II. Enter their pickup and delivery address.

III. View the price list of different services.

- After the authentic admin/user gets logged in admin must be able to:
  I. Add, Edit, Delete and View categories
  II. View the orders and delete the completed orders.
  III. See the firm's financial performance reports.
- The system must alert the client after the account is created.

- **Non-functional Requirements**

  Non-functional requirements are the requirements that specifies how the system performs a certain function. In other words, a non-functional requirement will describe how a system should behave and what limits there are on its functionality. The non-functional requirements are:
  - The data must be stored securely that means an unwanted user must not be allowed to exploit the data.
  - The response must not be greater than 1.5 seconds when the active user is less than 5000.
  - The data must be backed up so that even after the system gets down it can be re retrieved.
  - The user must be able to navigate through the website easily.
  - The system must be flexible so that the new requirement can easily be dealt with.
  - The maintenance cost of the system must not be very high.

- **System Requirements**

  Software configuration:

  - Operating System: Windows/ Linux/ Mac
  - Technology: HTML, CSS, PHP
  - Server: XAMPP

  Hardware Configuration:

  - Pentium IV Processor
  - 2GB RAM
  - 512GB HDD
  - 1024*768 Resolution Color Monitor

4.2. Feasibility Study

A feasibility study is an assessment of the practicality of the proposed plan or project. According to its workability, impacts on the organization, ability to meet user needs and effective use of the resources. The main tasks done during feasibility study are:

4.2.1. Technical Feasibility

This involves questions such as whether the technology needed for the system exists, how difficult it will be to build, and whether the firm has enough experience using that technology. The system is the fact that it will be developed on windows 10 platform and a high configuration of 8GB RAM on Intel Core i5-10th Gen processor. The technology or tools used are HTML, CSS, JS, PHP, MYSQL and XAMPP Server. The Google Chrome web browser is used for the testing. So, the system is technically feasible.

4.2.2. Operational Feasibility

This project is operationally feasible because

- As to execute the system we need a laptop or an android and a browser which is common to all and used by everyone in today's world.
- The potential users of this system are laundry shop owners and their staffs, who are generally familiar with site navigations and management which is the result of advancement of technology in present world, so little or moderate training level would be required.

The system will provide a simple interface for the users to operate.

4.2.3. Economic Feasibility

Economic analysis could also be referred to as cost/benefit analysis. It is the most frequently used method for evaluating the effectiveness of a new system. The system which is going to be developed does not require any additional hardware or software as the interface of this system is developed using the existing resources and technologies available more closely.

4.3. High Level Design of System

High Level Design (HLD) is a system design and includes the description of the System architecture and design. Data flows, flowcharts, data structures are included in HLD documents so that developers/implementers can understand how the system

is expected to work with regards to the features and the design. Laundry Management System will be developed using HTML, CSS and PHP. There will be laundry administrator who will have the right to add and delete users, view the financial information and son on. Following are the system design of the system:

- Login to the system.
- Admin panel.
- Add user, view records
- Generate financial reports
- Add and delete customer information

4.3.1. System Flowchart

This will display how does the data is flowing in our system. To illustrate this, symbols are used. They are connected together to show what happens to data and where it goes.

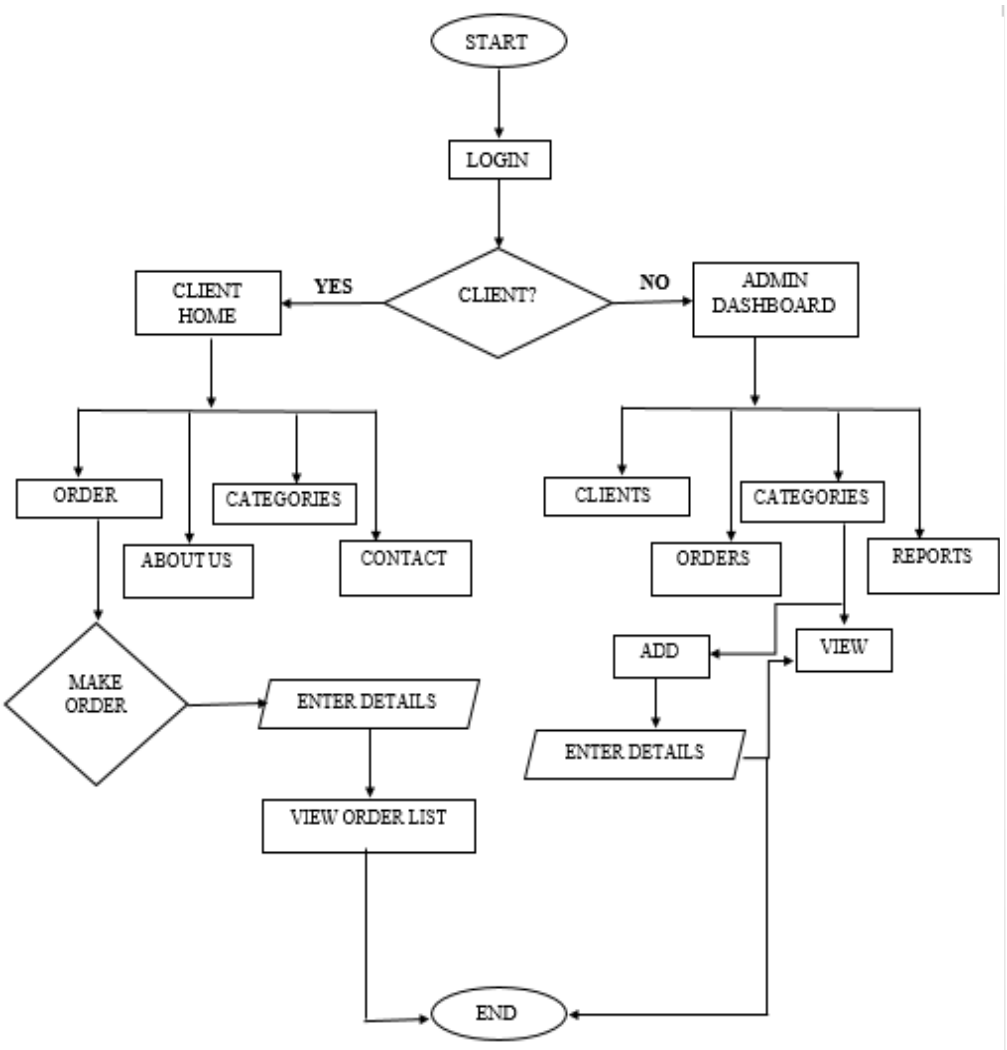
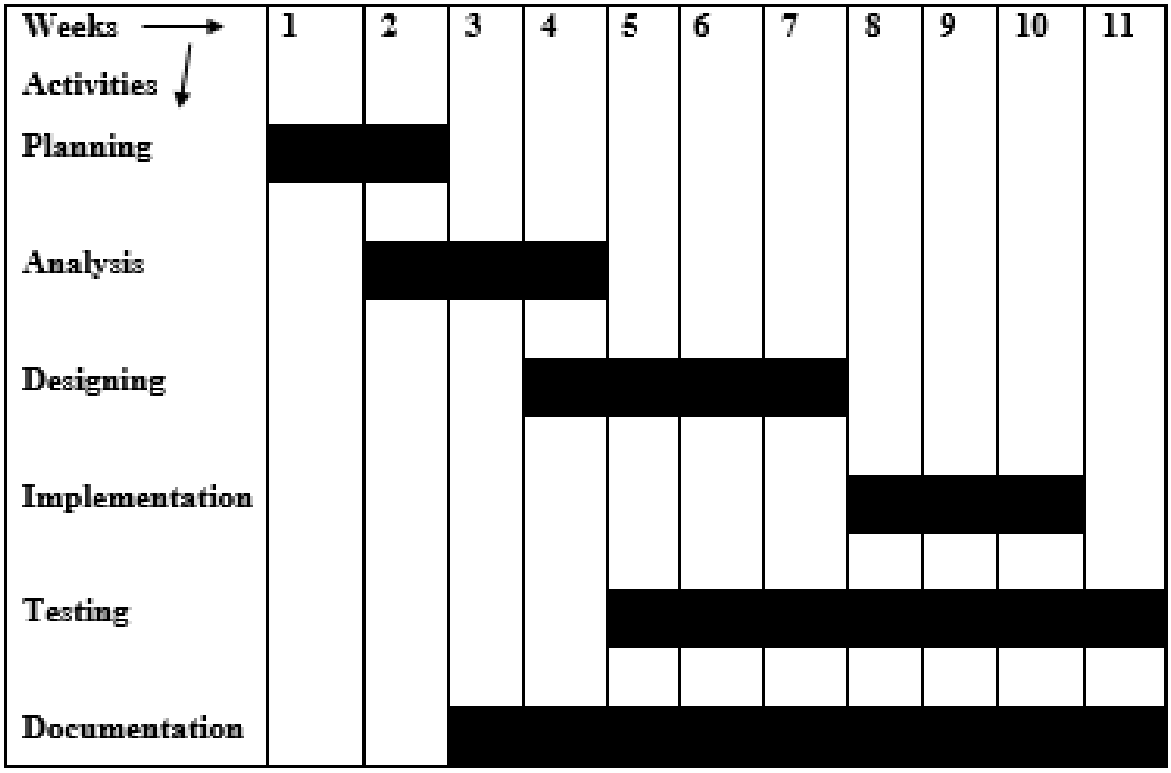


Figure: System Flowchart of Laundry Management

5. Gantt chart

Generalized Activity Normalization Time Table (GANTT) chart is type of chart in which series of horizontal lines are present that show the amount of work done or production completed in given period of time in relation to amount planned for those projects. It is simply used for graphical representation of schedule that helps to plan in an efficient way, coordinate, and track some particular tasks in project. The purpose of Gantt chart is to emphasize scope of individual tasks. Hence set of tasks is given as input to Gantt chart. [6]

Table: Gantt chart



6. Expected Outcome

The proposed system will be develop to tackle issue changing the manual system being used. It plan to mechanized data of the laundry consequently comforting both customer and service from much pressure as experienced from the manual system. This will do the breaking down and putting away of data either logically or automatically, it will utilize modernized system to get to the data. The proposed system will likewise have a few highlights like.

- The new system will provide editing of data record.

- The new system will provide information of those customer who are register with the system.
- The system will provide information of customer who made bookings. Such as Contact Number, Address.
- The system will also maintain the important information, record and data's.

References/Citation

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