Tribhuvan University

Faculty Of Humanities And Social Science

A PROJECT PROPOSAL ON

TAILORING MANAGEMENT SYSTEM

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August 2025

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1. Introduction

A Tailoring Management System is an all-in-one software solution that helps tailoring businesses and manage key operations. This system helps your tailoring shop in many ways. It handles customer measurements, and order tracking. It also manages inventory, sales, purchasing, accounting, manufacturing, and POS integration. This makes your shop more efficient and keeps customers happy. [1]

In today's competitive market, customers demand quick delivery, personalized designs, and professional service. It reduces the need for repetitive paperwork, minimizes mistakes in measurements or fabric selection, and allows the business owner to focus more on creativity and customer service. With proper implementation, it becomes a powerful tool for maintaining quality and meeting deadlines. [2]

Moreover, the system enables better communication between customers and tailors. Customers can place orders, choose designs, and check progress updates without frequent visits to the shop. By integrating modern technology into tailoring, the Tailoring Management System not only improves operational efficiency but also creates a professional image, ultimately leading to business growth and higher customer loyalty.

2. Problem Statement

In most tailoring shops, the management of customer orders, measurements, fabric details, and delivery schedules is still handled manually. This traditional approach often leads to errors such as incorrect measurements, misplaced order records, and missed delivery deadlines. Additionally, maintaining handwritten records is time-consuming and inefficient, making it difficult for tailors to track ongoing work or retrieve past customer information quickly.

With increasing competition and demand for quick, customized services, tailors face challenges in balancing creativity with efficient management. Manual systems cannot easily handle multiple orders at once, lack automated reminders, and offer no real-time updates for customers. The absence of a centralized, organized, and error-free system highlights the urgent need for a modern solution.

The proposed Tailoring Management System aims to solve these problems by providing a digital platform to manage all tailoring operations efficiently. By automating order tracking, storing customer measurements, generating bills, and offering timely reminders, the system will minimize errors, save time, and improve overall service quality. This will help tailoring businesses maintain professionalism, improve customer satisfaction, and achieve sustainable growth in the market. [3]

3. Objectives

1. To store customer and order details securely.
2. To track orders from placement to delivery.
3. To reduce errors in measurements and billing.

4. Scope

- Manage customer details, measurements, fabric preferences, and order history in a centralized database.
- Track orders from placement to delivery with clear deadlines.
- Generate accurate bills automatically to save time.
- Provide timely updates to customers about order status.
- Maintain past order records for personalized service and offers.

5. Methodology

The development of the Tailoring Management System follows a systematic process to ensure accuracy, efficiency, and usability. The process includes requirement identification, study of the existing system, system design, development, testing, deployment, and maintenance. This structured approach ensures that the final product meets the needs of both tailors and customers while addressing the shortcomings of the manual system.

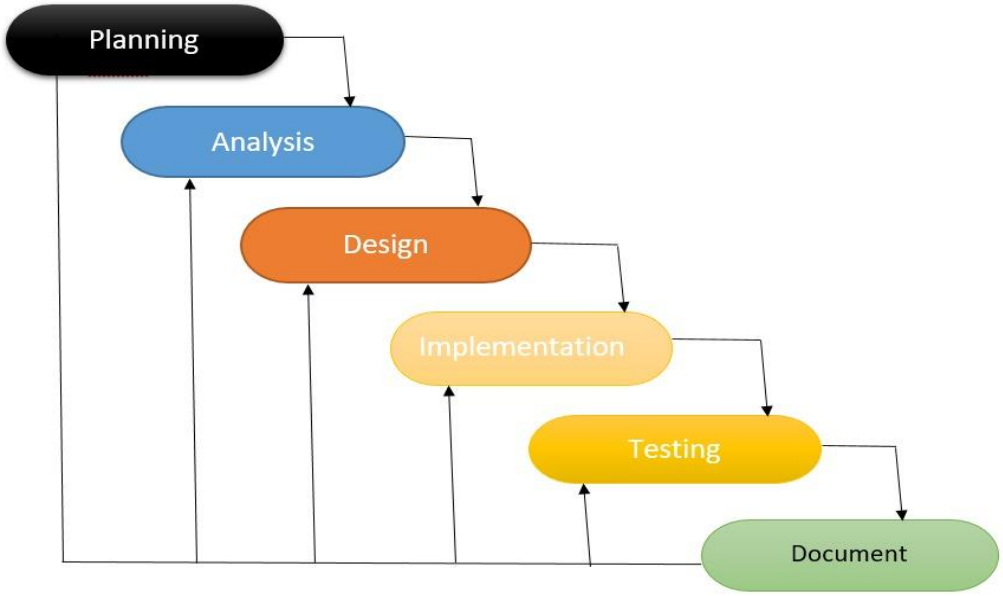

Figure 1: Waterfall Model

The Waterfall Model is suitable for a Tailoring Management System because the system's requirements like customer management, order tracking, billing, and inventory are clear and fixed. Its step-by-step approach ensures structured development, proper documentation, and thorough testing before deployment. Since the project is medium-scale and time-bound, Waterfall makes it easier to manage, reduces complexity, and ensures that the system is delivered reliably and on schedule.

Phases of Waterfall Model

1. Planning

In the planning phase, the overall project scope and objectives of the Tailoring Management System are defined. Key features such as customer registration, order management, billing, staff management, and inventory control are identified. A project schedule is prepared, resources are allocated, and feasibility studies—technical, operational, and economic—are conducted to ensure the project can be completed successfully within the given time frame.

2. Analysis

During the analysis phase, all functional and non-functional requirements of the system are gathered and documented. Functional requirements for the TMS include adding customers, recording measurements, tracking orders, and generating invoices, while non-functional requirements focus on a user-friendly interface, secure data storage, and system performance. Clear documentation ensures that all stakeholders agree on what the system should achieve.

3. Design

The design phase involves creating the system architecture and database structure based on the requirements. For the Tailoring Management System, this includes designing database tables for customers, orders, staff, and inventory. User interface designs for admin, staff, and customer modules are prepared, along with forms and reports for invoices, order status, and measurement tracking. This phase ensures that developers have a clear blueprint to follow during coding.

4. Implementation (Coding)

In the implementation phase, the actual coding of the system is carried out according to the design specifications. The admin module handles orders and inventory, the staff module manages measurements and order processing, and the customer module allows registration and order tracking. Each module is developed and tested individually to ensure it functions correctly before integration.

5. Testing

The testing phase verifies that the complete system works as intended. For the Tailoring Management System, this includes checking order processing, billing accuracy, inventory updates, login/logout functionality, and report generation. Any errors or bugs found during testing are fixed to ensure the system meets all requirements and operates smoothly.

6. Documentation

In the documentation phase, detailed guides are prepared to support the use and maintenance of the system. This includes user manuals explaining how to operate

the Tailoring Management System, as well as technical documentation covering database structures, code organization, workflows, and system architecture. Proper documentation ensures that future updates or maintenance can be carried out efficiently.

After completing all the phases of the Waterfall Model for the Tailoring Management System, the system becomes fully functional and ready for use. At this stage, the software is deployed in the real environment, allowing the tailoring shop to manage customers, orders, billing, staff, and inventory efficiently. Users can follow the documentation to operate the system, and any minor issues that arise can be addressed through maintenance. Completing all phases ensures the project is well-planned, thoroughly tested, and properly documented, providing a reliable and stable system for long-term use.

5.1 Requirement Identification

5.1.1 Study of Existing System

Most tailoring shops currently use a manual system to manage orders and measurements. This involves writing details in registers, maintaining physical measurement cards, and manually tracking deadlines. While simple, this system has several drawbacks:

- Risk of data loss or damage to physical records.
- Difficulty in retrieving past customer information.
- Chances of human error in measurements or billing.
- Time-consuming process for order management.
- Lack of real-time updates for customers.

5.1.2 Requirement Collection

Requirement collection is the process of gathering detailed information from stakeholders to understand what the system should do and how it should function. For the Tailoring Management System, requirements were collected through interviews with tailoring shop owners, discussions with staff, and feedback from customers. Observations of the current manual process were also made to identify areas of improvement.

The collected requirements include:

Functional Requirements

- Login/Register: Customers, staff, and admin can sign in.
- Customer Details: Save customer info and measurements.
- Order Management: Create, update, and track orders.
- Payment System: Record payments and give receipts.
- Inventory: Track fabrics and materials.
- Staff Work: Assign and manage staff tasks.
- Delivery: Set and manage delivery dates.
- Reports: Show sales, expenses, and pending orders.
- Notifications: Send order status updates.
- Feedback: Customers can give reviews.

Use Case Diagram

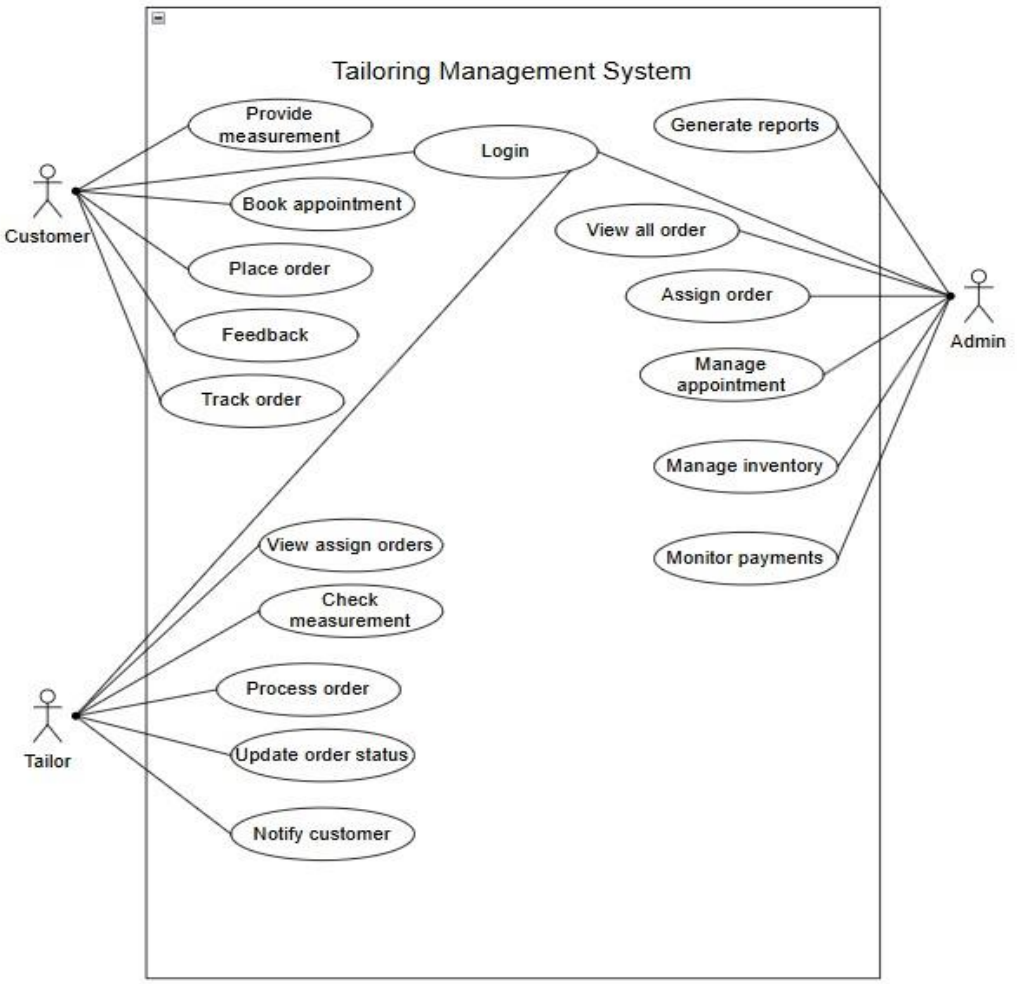

Figure 2: Use Case of Tailoring Management System

Non-Functional Requirements

- Fast: The system should work quickly and not take long to load.
- Always Available: Should be ready to use anytime.
- Safe & Secure: Customer details and payments must be kept safe.
- Easy to Use: Simple design so anyone can use it easily.
- Works Everywhere: Should run on mobile, computer, or tablet.
- Reliable: Should not crash or stop working often.
- Can Grow: Can handle more customers and orders when business grows.
- Easy to Fix/Update: Should be simple to repair or add new features.
- Backup: Should save data so it won't get lost.
- Good Storage: Can store a lot of customer and order records.

5.2 Project Feasibility

A Project Feasibility Study is an evaluation process that determines if a project is practical and achievable. It analyzes whether the project can be successfully completed within the constraints of technology, budget, and operations. For a Tailoring Management System, this study checks if the software system can be developed and implemented effectively to help manage tailoring orders, customer data, inventory, and billing.

Types of Feasibility

5.2.1 Technical Feasibility

The system is technically feasible as it can be developed using commonly available tools and technologies such as HTML, CSS, JavaScript, PHP, and MySQL, which are compatible with most hardware and operating systems. Required resources like computers, internet connectivity, and hosting services are easily accessible, and the development team has the necessary skills to implement and maintain the system.

5.2.2 Economical Feasibility

The system is economically feasible as the development and maintenance costs are low compared to the long-term benefits. It reduces manual work, saves time, minimizes errors, and increases efficiency, leading to cost savings and higher productivity for the tailoring business.

5.2.3 Operational Feasibility

The Tailoring Management System is operationally feasible because it is easy to use, improves daily workflow, reduces manual errors, and is likely to be accepted by staff and tailors. It helps manage orders, customer records, inventory, and appointments efficiently, making the tailoring business more organized and productive.

5.3 High Level Design of Software

5.3.1 System Flow Chart

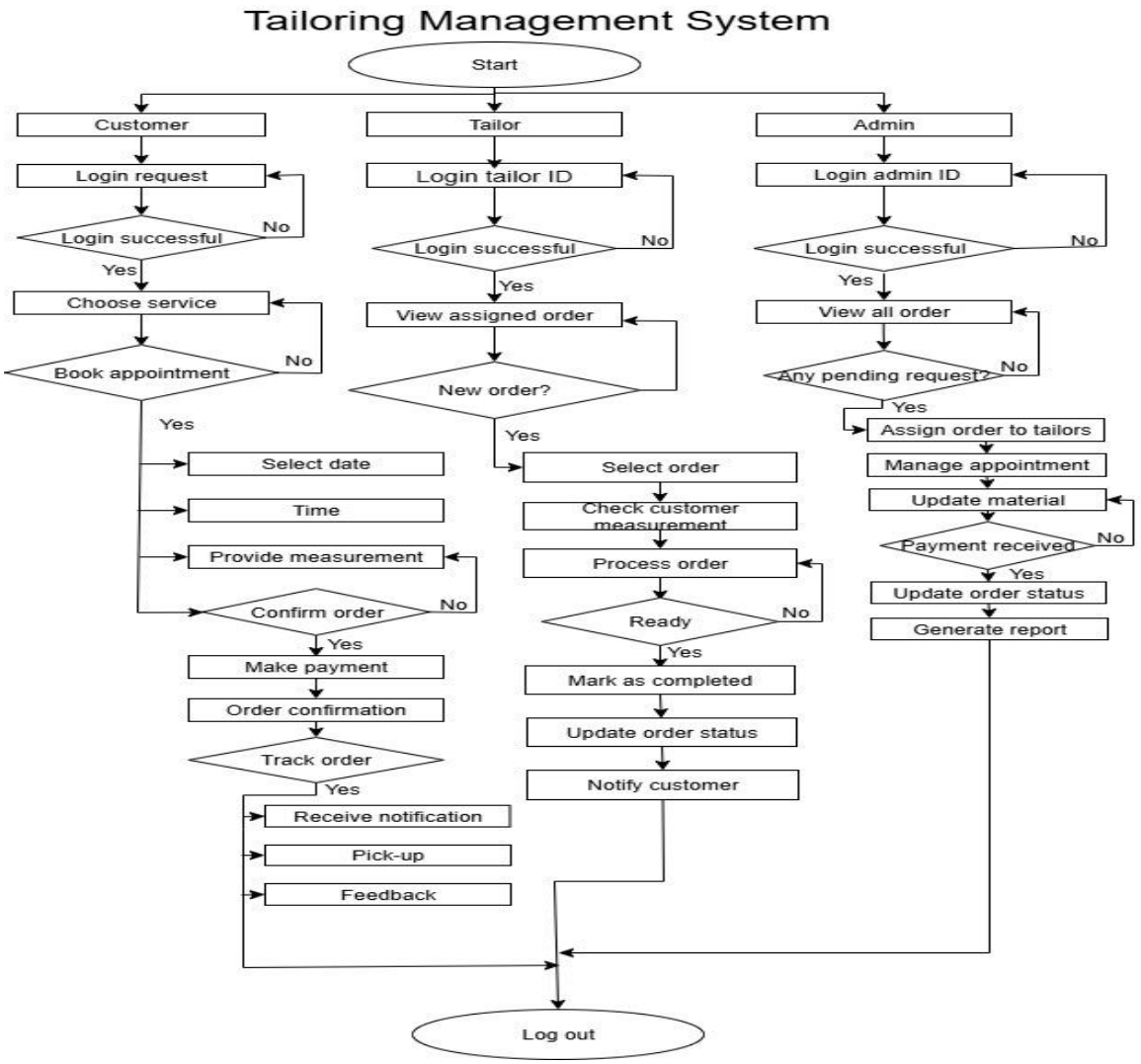

Figure 3: Flow Chart of Tailoring Management System

6. Gantt Chart

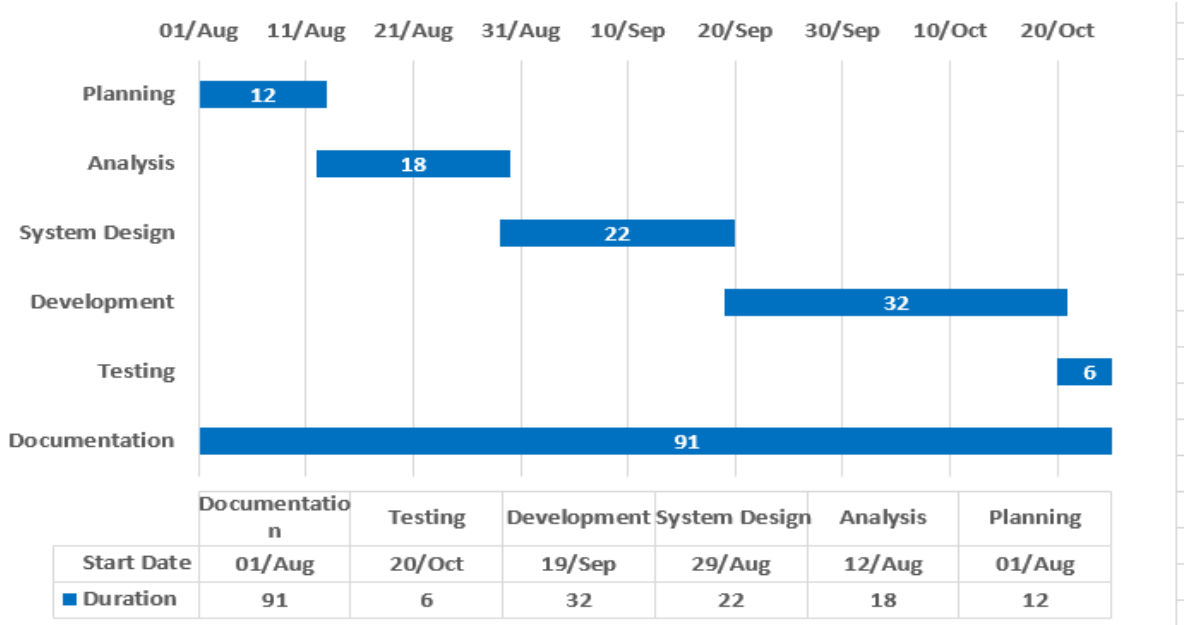

Figure 4: Gantt Chart of Tailoring Management System

7. Expected Outcome

The Tailoring Management System will improve order tracking, store customer details securely, and manage inventory efficiently. It will automate billing and payments, reduce errors, and speed up processes. The system will boost productivity by organizing tasks clearly and provide useful reports for better business decisions. Its user-friendly design ensures easy use by staff.

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[1] ERPNext. [Online]. Available: https://erpnext.com/tailoring.. [Accessed 14 August 2025].

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