

# **BEAUTY BLISS MANAGEMENT**



## **A DESIGN PROJECT REPORT**

*submitted by*

**KANNAGI.G**

**KIRUTHIKA.R**

**NARMADHA.N**

*in partial fulfilment for the award of the degree*

*of*

**BACHELOR OF ENGINEERING**

*in*

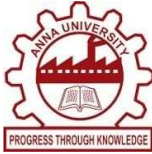
**COMPUTER SCIENCE AND ENGINEERING**

**K RAMAKRISHNAN COLLEGE OF TECHNOLOGY**

**(An Autonomous Institution, affiliated to Anna University Chennai, Approved by AICTE, New Delhi)**

**Samayapuram – 621 112**

**JUNE 2025**



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**KANNAGI.G (811722104068)**

**KIRUTHIKA.R (81172204077)**

**NARMADHA.N (811722104099)**

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# **K RAMAKRISHNAN COLLEGE OF TECHNOLOGY**

**(AUTONOMOUS)**

**SAMAYAPURAM – 621 112**

## **BONAFIDE CERTIFICATE**

Certified that this project report titled “**BEAUTY BLISS MANAGEMENT**” is Bonafide work of **KANNAGI G (811722104068), KIRUHIKA R (81172214077), NARMADHA N (81172210499)** who carried out the project under my supervision. Certified further, that to the best of my knowledge the work reported here in does not form part of any other project report or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

### **SIGNATURE**

Dr. A Delphin Carolina Rani, M.E.,Ph.D.,

**HEAD OF THE DEPARTMENT**

PROFESSOR

Department of CSE

K Ramakrishnan College of Technology

(Autonomous)

Samayapuram – 621 112

### **SIGNATURE**

Ms. S Uma Mageshwari, M.E.,

**SUPERVISOR**

Assistant Professor

Department of CSE

K Ramakrishnan College of Technology

(Autonomous)

Samayapuram – 621 112

Submitted for the viva-voice examination held on .....

**INTERNAL EXAMINER**

**EXTERNAL EXAMINER**

## DECLARATION

We jointly declare that the project report on “**BEAUTY BLISS MANAGEMENT**” is the result of original work done by us and best of our knowledge, similar work has not been submitted to “**ANNA UNIVERSITY CHENNAI**” for the requirement of Degree of Bachelor Of Engineering. This project report is submitted on the partial fulfilment of the requirement of the award of Degree of Bachelor Of Engineering.

**Signature**

KANNAGI.G

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KIRUTHIKA.R

---

NARMADHA.N

---

Place: Samayapuram

Date:

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## **ABSTRACT**

In the beauty industry, managing appointments, services, and customer interactions efficiently is essential for maintaining high-quality service and ensuring customer satisfaction. The Beauty Bliss Management System is a web-based solution designed to simplify and automate these core functions. Customers can easily browse available services, book appointments, and manage their profiles online eliminating the need for manual scheduling or time-consuming phone calls. For salon administrators, the system offers powerful tools to handle bookings, manage service offerings, and oversee daily operations. Once a customer books an appointment, the admin can review, approve, or reject it based on availability. The admin also maintains full control over the list of services, which can be updated in real time to reflect current offerings. Beyond appointment scheduling, the system supports customer relationship management by tracking booking history and personal preferences. This enables salons to deliver more personalized experiences and maintain a loyal customer base. By automating administrative tasks and offering real-time scheduling visibility, the Beauty Bliss Management System helps reduce common issues such as overbooking, double-booking, and miscommunication. Ultimately, it enhances operational efficiency, saves time, minimizes errors, and elevates overall customer satisfaction providing a modern solution to meet the evolving demands of the beauty service industry.

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## **LIST OF ABBREVIATIONS**

<b>ABBREVIATION</b>	<b>FULL FORM</b>
HTML	Hypertext markup language
CSS	Cascading style sheets
PHP	Hypertext Preprocessor
MySQL	My Structured Query Language
API	Application Programming Interface
CRM	Customer Relationship Management
FCFS	First come first served
FCM	Firebase cloud messaging
SMS	Short message Service
IT	Information Technology
IOT	Internet of things

# CHAPTER 1

## INTRODUCTION

### 1.1 BACKGROUND

The beauty industry has traditionally relied on manual methods for managing appointments and customer interactions, often leading to inefficiencies. With the rise of web technologies, salons began adopting digital platforms to streamline operations and enhance customer experience.

The **Beauty Bliss Management** addresses this need by offering a centralized solution for browsing services, booking appointments, and managing profiles. Salon admins can also control services, view appointments, and approve or reject bookings, reducing administrative work. The system ensures real-time updates and eliminates scheduling conflicts, improving both customer satisfaction and salon productivity.

As technology evolves, systems like **Beauty Bliss Management** are improving efficiency and customer satisfaction, enabling salons to better meet modern demands. Furthermore, it provides valuable insights for salons through appointment and service data, allowing for better decision-making and resource allocation.

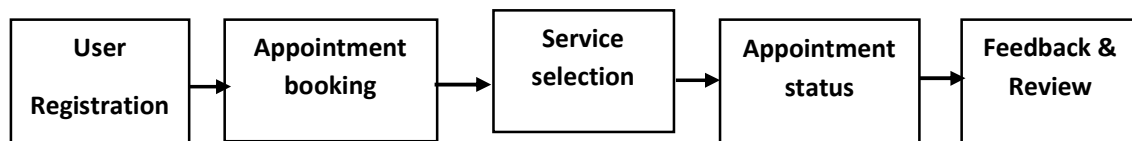


Fig.1.1 Flow of Beauty Bliss Management

## 1.2 OVERVIEW

The **Beauty Bliss Management** is a web-based platform designed to streamline the operations of beauty salons by providing both customers and salon administrators with an easy-to-use interface. Users can browse through various services offered by the salon, view available time slots, and book appointments directly from the system. This eliminates the need for traditional phone calls and in-person bookings, making the process more convenient and efficient for customers.

Salons benefit from the system as well, with the ability to manage appointments, track customer history, and update service offerings in real-time. Admins can approve or reject appointments, preventing overbooking and ensuring smooth operations. The platform provides complete control over scheduling, service listings, and customer data, allowing salon owners to run their businesses with greater ease.

The system is designed to be accessible from any device, offering convenience to both customers and administrators. It provides a seamless experience that enhances customer satisfaction through transparency and easy access to services. With features such as appointment reminders and user profiles, the **Beauty Bliss Management** helps beauty salons optimize their workflow and enhance customer loyalty.

By modernizing and automating key aspects of salon management, this system empowers salons to deliver a higher quality of service and grow their customer base with minimal administrative effort. The **Beauty Bliss Management** is an essential tool for beauty businesses looking to embrace digital solutions for enhanced efficiency and customer engagement.

### 1.3 PROBLEM STATEMENT

Traditional Beauty salon management methods, such as phone bookings and manual tracking, often lead to inefficiencies like scheduling conflicts and overbookings. These methods also make it difficult to track customer preferences and service histories, resulting in a less personalized experience. There is a need for a more streamlined, user-friendly system that allows customers to easily book appointments online while helping salon administrators manage services and schedules efficiently.

### 1.4 OBJECTIVE

The primary goal of the **Beauty Bliss Management** is to provide an efficient, web-based platform for customers to easily book appointments and manage salon services. The system aims to streamline salon operations, reduce administrative work, and improve customer experience without the need for complex hardware or costly software.

### 1.5 IMPLICATION

The implementation of the **Beauty Bliss Management** implies a shift from manual, paper-based salon operations to a streamlined digital process. It allows salons to manage appointments, services, and customer data more efficiently through a centralized web platform. This not only improves service accuracy and customer satisfaction but also reduces administrative burden and operational errors, making salon management more organized and effective.

## **CHAPTER 2**

### **LITERATURE SURVEY**

#### **2.1 Online Beauty Salon Booking System, Amit Kumar, International Journal of Computer Applications, 2019**

This research outlines the development of an online booking system specifically aimed at solving the issues faced by beauty salons in managing appointments, walk-ins, and service delays. The author identifies core problems in existing systems, such as customer wait times, double-bookings, and limited staff availability tracking. The proposed system is based on a modular three-tier architecture, consisting of a presentation layer (web interface), application layer (PHP business logic), and database layer (MySQL), ensuring proper separation of concerns and maintainability. The system facilitates booking confirmation emails, live appointment tracking, cancellation and rescheduling, and service catalog access. It also stores customer preferences, previous visits, and chosen services to aid in personalized service offerings. Testing results indicated a 45% reduction in appointment conflicts and a 60% improvement in staff time allocation. The integration of a calendar API for real-time slot updates significantly improved usability. This paper confirms that introducing digital tools in salon environments helps in managing high client turnover and improves service delivery efficiency.

#### **2.2 Development of Spa and Beauty Salon Management System, Maria V. N., Dhanush S., Ranjitha R., IJAR CET, 2020**

This paper presents the development of a specialized software system for managing the operations of beauty parlours and spas. The system aims to eliminate inefficiencies caused by manual booking and handwritten records. It

features real-time customer registration, service cataloguing , staff schedule management, inventory tracking, and financial reporting. The backend of the application is built using MySQL, and PHP is used as the primary scripting language. The authors highlight that the system allows dynamic pricing of services, maintains client history, and supports the addition of combo packages and discounts based on seasonal campaigns. The system was tested with three small-to-medium-sized parlours and showed improvements in daily appointment volume, reducing no-shows by 35% through automated reminders. Moreover, it allows administrators to assess employee performance based on the number of services delivered and customer feedback. The system's modular architecture ensures scalability, making it adaptable for use in larger wellness centers. The study demonstrates that digitizing internal operations leads to enhanced business intelligence and decision-making.

### **2.3 Customer Relationship Management in Salons using Digital Tools, S. Singh, A. Mehta, Journal of Business and Technology, 2018**

This paper explores how beauty salons can use digital tools to implement Customer Relationship Management (CRM) strategies that enhance client engagement and loyalty. The authors argue that client retention is equally important as client acquisition in service industries, and a robust CRM system enables personalized services, feedback tracking, promotional targeting, and loyalty program integration. The research includes a CRM system prototype implemented with MySQL and PHP, capable of tracking appointments, recording customer preferences, generating birthday/anniversary alerts, and sending customized offers. A survey conducted among salon clients showed that 78% of users preferred salons that remembered their service preferences and offered targeted discounts. Furthermore, the CRM system offered analytics dashboards

for the admin to monitor popular services, peak booking hours, and customer satisfaction ratings. The system resulted in a 30% increase in repeat customer bookings within a 3-month trial period. This study reinforces the idea that CRM integration within beauty parlour software significantly contributes to long-term business growth and customer satisfaction.

#### **2.4 A Study on Inventory and Appointment Management in Salons, R. Priya, M. Ramesh, International Journal of Engineering Research & Technology (IJERT), 2021**

This study focuses on the integration of appointment management and inventory control in salon systems to optimize product usage and reduce stock wastage. The paper explains how service bookings directly affect the consumption of salon resources such as shampoos, creams, and other consumables. Therefore, synchronizing these modules enables real-time inventory updates and more accurate resource planning. The proposed system tracks the quantity of each product used per service and automatically deducts it from stock levels upon service completion. Alerts are generated when stock levels fall below a predefined threshold, and reports help in estimating re-order frequency. The research also introduced a predictive model that estimates future stock requirements based on current appointment trends using simple linear regression. Implementation of the system in two salons led to a 25% reduction in over-ordering and 15% savings in procurement costs. Additionally, employee accountability increased due to better monitoring of product usage. The study confirms that integrating inventory and booking management into a unified salon management platform offers cost benefits and ensures uninterrupted service delivery.



## **2.5 Design and Development of a Salon Automation System, R. Sowmiya, K. Prakash, International Research Journal of Engineering and Technology (IRJET), 2020**

This paper proposes a salon automation system that digitizes customer engagement, appointment booking, and staff coordination in beauty parlours. The authors address the core challenges faced by parlours such as inconsistent scheduling, poor record maintenance, and lack of customer data. The system allows real-time appointment management, service personalization, staff login, and a review mechanism. The system was developed using PHP and MySQL with an emphasis on data privacy and access control. The authors tested the prototype with a group of 50 users and observed a marked improvement in user satisfaction and booking success rate. Feedback revealed that customers appreciated timely reminders and the transparency of service charges. Additionally, the system tracked staff performance metrics and presented them in admin dashboards, which led to better recognition and distribution of workloads. This study illustrates the impact of IT-driven service automation in increasing salon efficiency and client engagement.

## **2.6 E-Parlour: Web-Based Beauty Parlour Management System, S. Sharma, A. Roy, IJRTE, 2019**

This research introduces “E-Parlour,” a web-based application that offers salon service listings, customer profiles, and e-billing. The authors identify the absence of technology in many small salons as a key bottleneck in business scalability. E-Parlour addresses this by offering a low-cost, user-friendly solution. One of the distinguishing features of the system is its ability to provide real-time data analytics such as service frequency, peak hours, and customer preferences, which helps the admin make business decisions. It supports promotional discount

campaigns and dynamic pricing. The platform was developed using HTML5, Bootstrap, JavaScript, PHP, and MySQL. During user acceptance testing, 90% of participants said they would prefer a salon that offered online booking and digital payment options. The study concludes that cloud-based applications can help local salons compete with larger chains by improving customer service and operational transparency.

## **2.7 Smart Salon Management Using IoT and Web Technologies, A. Mishra, M. Das, International Conference on Smart Computing and Communication, 2021**

This paper explores the integration of IoT and web-based tools for creating a "smart salon" environment. The system includes modules for smart appointment scheduling, automatic climate control (IoT-enabled), customer face recognition, and feedback collection. The focus of the research is to enhance customer comfort and reduce manual dependency through intelligent automation. The authors used Raspberry Pi devices to automate lighting and ambiance settings based on client preferences stored in the database. Web technologies such as Flask (Python), HTML/CSS, and MySQL were used for the front and back end. The study found that smart scheduling reduced average wait times by 50%, and automated ambiance control increased customer satisfaction scores during testing by 35%. The research concludes that integrating IoT into beauty parlour systems significantly elevates the customer experience and operational efficiency. The focus of the research is to enhance customer comfort and reduce manual dependency through intelligent automation. The authors used Raspberry Pi devices to automate lighting and ambiance settings based on client preferences stored in the database.

## **2.8 A Review of Appointment Scheduling Systems in the Service Sector, M. Latha, D. Srinivasan, Journal of Service Engineering, 2018**

This paper reviews various appointment scheduling frameworks across service industries and applies the findings to the beauty and wellness sector. The study emphasizes that optimal appointment scheduling improves both customer satisfaction and resource utilization. It evaluates the effectiveness of First-Come-First-Served (FCFS), Priority-based, and Slot Optimization algorithms. Using simulation models, the study compared different scheduling algorithms under high and low traffic salon environments. Slot Optimization based on historical data was found to yield the best balance between wait times and staff idle time. The review further suggests integrating scheduling systems with customer profiles to improve service personalization. Though not focused exclusively on beauty parlours, the study offers valuable insights into how well-tuned scheduling algorithms can improve salon workflows and reduce customer churn.

## **2.9 Digital Beauty Parlour Management with Facial Recognition, : P. Ramesh, K. Ashwini, International Journal of Emerging Trends in Engineering Research, 2022**

This project introduces a futuristic beauty parlour system enhanced with facial recognition for customer identification and service customization. Upon customer entry, a webcam captures the user's face and matches it against stored records to retrieve previous appointments, preferences, and skin type. Developed using OpenCV (Python) for facial recognition and PHP-MySQL for the management interface, the system automatically updates appointment logs and recommends services based on customer history. During real-world testing, the facial recognition system achieved 92% accuracy in correctly identifying registered customers. The system was especially useful in fast-paced salons with

high client turnover, minimizing check-in delays. This innovation shows how biometric technology can be leveraged in beauty service environments for seamless user experience and data-driven service delivery.

### **2.10 Mobile Application for Salon Service Booking Using Flutter, R. Khan, D. Joseph, IEEE International Students' Conference on Electrical, Electronics and Computer Science, 2021**

This study outlines the design of a cross-platform mobile application for beauty parlour service booking using Flutter and Firebase. The mobile app allows users to browse services, select time slots, make online payments, and receive real-time notifications. It also features a rating system for service providers and support chat for customer care. Unlike traditional web apps, the mobile app includes offline caching of appointment history and wallet balance, providing smooth user experience even during network interruptions. Firebase Cloud Messaging (FCM) is used to deliver alerts for upcoming appointments. The study found that 65% of users preferred using the app over web platforms, citing speed, responsiveness, and user interface design as the main advantages. The research highlights the increasing importance of mobile-first approaches in the beauty service industry.

## CHAPTER 3

### SYSTEM ANALYSIS

#### 3.1 EXISTING SYSTEM

In many small to medium-sized beauty parlours, traditional management methods are still prevalent. These methods involve manual record-keeping, walk-in appointment scheduling, physical appointment books, and verbal communication among staff members.

##### 3.1.1 Disadvantages

- **Inefficient appointment handling:** Overlapping or missed bookings are common due to the lack of real-time synchronization.
- **Poor customer data management:** Client preferences, visit history, and feedback are often lost or ignored without a centralized database.
- **Limited staff management:** Staff availability and workload distribution are not efficiently tracked.
- **Inventory issues:** No integrated system to monitor product usage or stock levels, often leading to shortages or wastage.
- **Time-consuming billing:** Invoices are prepared manually, increasing the chances of error and customer dissatisfaction.

#### 3.2 PROPOSED SYSTEM

The proposed Beauty Bliss Management is a comprehensive web-based application designed to automate all major salon operations. The system includes dedicated modules for appointment scheduling, customer management, service listing, staff allocation, billing, and inventory tracking. The key focus is on creating a user-friendly interface for both customers and salon administrators.

### 3.2.1 Advantages

- **Online Appointment Booking:** Clients can view available time slots and book appointments directly through the portal.
- **Customer Database:** Stores client profiles, visit history, preferred services, and feedback for personalized service delivery.
- **Service Management:** Admin can add, update, or remove services dynamically. Supports service bundles and promotional discounts.
- **Staff Scheduling:** Assign appointments to available staff members based on skill sets and availability.
- **Automated Billing:** Generates and stores invoices for each transaction. Supports tax calculations and digital receipts.
- **Inventory Management:** Tracks stock usage per service and provides low-stock alerts.
- **Admin Dashboard:** Displays real-time metrics such as total appointments, daily earnings, customer traffic, and service popularity.

## 3.3 SYSTEM CONFIGURATION

### 3.3.1 SOFTWARE REQUIREMENT

- Server Backend: PHP
- XAMPP
- Visual Studio code

### 3.3.2 HARDWARE REQUIREMENT

- Processor – Intel I3 or more
- Server (Local or Cloud)
- Stable Internet connection

### 3.4 ARCHITECTURE DIAGRAM

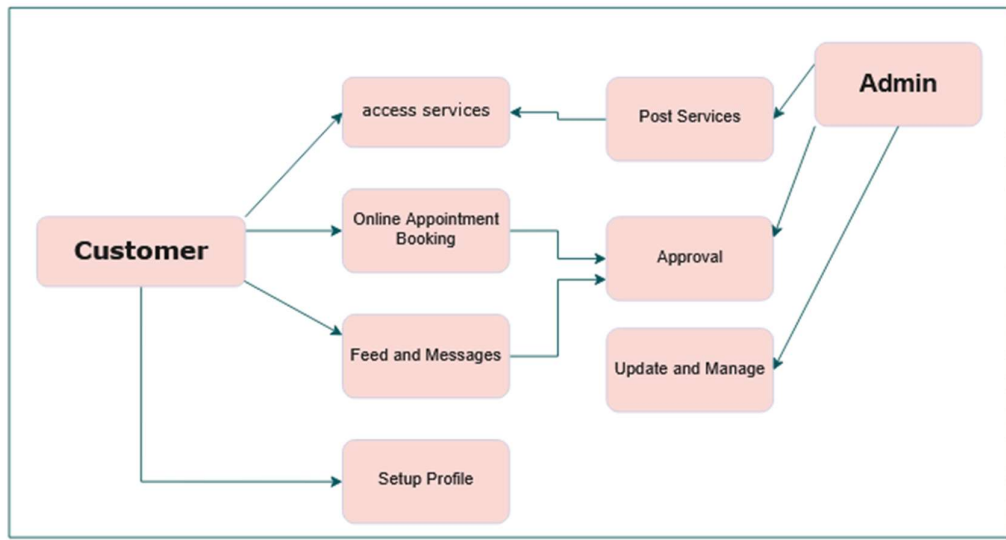


Fig.3.4.1 Block Diagram

## **CHAPTER 4**

### **MODULES**

#### **4.1 MODULE DESCRIPTION**

- User module
- Admin module

##### **4.1.1 User module**

The User Module serves as the customer-facing interface of the Beauty Bliss Management, enabling clients to interact digitally with the salon and avail its services efficiently. This module allows customers to register by submitting basic information such as name, email, phone number, and password. Once authenticated, users can log in to access a personalized dashboard. Here, they can browse the list of available services, categorized under sections such as skincare, haircare, makeup, and spa treatments. Each service is displayed with a brief description, cost, duration, and availability, allowing clients to make informed choices. The system supports appointment booking by allowing users to choose a preferred date and time slot based on service provider availability. Additionally, users can reschedule or cancel their bookings through the portal, with automatic updates reflecting in the admin panel.

Beyond booking, the User Module maintains a detailed history of all appointments, invoices, and transactions for every customer. This facilitates transparency and enables users to keep track of their service usage and expenditures. Clients can update their profiles, change passwords, and manage contact details directly through the system. Personalized experiences are enhanced through features like remembering preferred services, providing suggestions based on past bookings, and offering promotional notifications. The module also provides a digital invoice for each visit, viewable and downloadable



from the user dashboard. Overall, this module simplifies customer engagement by providing a seamless and accessible online platform, reducing the need for physical visits or phone calls for appointment scheduling, while increasing customer satisfaction through convenience and personalization.

#### **4.1.2 Admin module**

The Admin Module functions as the core control panel for salon administrators, offering comprehensive tools to manage, monitor, and maintain all operational aspects of the parlour. Upon secure login, administrators are granted access to a centralized dashboard where they can view real-time statistics such as daily appointments, total earnings, most popular services, inventory status, and employee workloads. This overview allows admins to make quick decisions and take immediate action where necessary. Through the Admin Module, services can be added, modified, or deleted, with options to set pricing, assign service durations, and apply promotional discounts or festive offers. Additionally, appointment requests from customers are handled here, where the admin can approve, reschedule, or assign them to available staff based on skill and availability. This avoids booking conflicts and ensures smooth workflow management across the team.

Staff management is also a key function within this module. Admins can maintain records of all employees including their names, roles, assigned services, and work schedules. Performance tracking features allow for productivity analysis based on completed services and customer feedback. The module supports inventory management by tracking stock consumption for each service, setting minimum threshold levels for automatic restock alerts, and maintaining supplier records. Billing operations are handled through automated invoice generation, including tax calculation and service discounts, reducing human error and improving financial tracking. Detailed reports on income, service popularity,

customer growth, and staff performance can be generated for specific date ranges to support strategic planning and marketing decisions. Furthermore, the admin has access to customer feedback and enquiry responses, allowing them to address complaints or suggestions promptly. By providing full administrative control, the Admin Module plays a vital role in optimizing salon operations, ensuring customer satisfaction, and driving business efficiency.

## **CHAPTER 5**

### **SOFTWARE DESCRIPTION**

#### **5.1 PHP**

PHP (Hypertext Preprocessor) is a widely-used open-source scripting language particularly suited for web development and can be embedded into HTML. It executes on the server side, making it ideal for building dynamic web applications such as the Beauty Parlour Management System. PHP scripts process form inputs, perform database operations, and handle session management, all while integrating smoothly with frontend technologies like HTML, CSS, and JavaScript. PHP has a wide range of online tutorials and resources for learning and troubleshooting. Beginners can refer to the official PHP documentation at [www.php.net](http://www.php.net) or explore educational sites such as W3Schools and GeeksforGeeks. These platforms provide code examples, explanations, and community support to help understand syntax, functions, and debugging techniques. PHP files are typically saved with the .php extension and executed within a local server environment like XAMPP.

#### **5.2 XAMPP**

Developers working with PHP and MySQL have access to extensive help documentation and forums. PHP's official site offers a comprehensive guide, function references, and user comments to address common issues. MySQL, used for handling the database layer of the project, also has complete documentation available at [dev.mysql.com](http://dev.mysql.com). Tools like Stack Overflow, GitHub, and Reddit serve as helpful forums where developers can post questions and receive community-driven solutions. For this project, tools like XAMPP (which includes Apache, PHP, and MySQL) provide an all-in-one local development environment. Within XAMPP, developers can place their project folder in the htdocs directory, access it via the browser (e.g., <http://localhost/projectname>), and test the application.

PHPMyAdmin, a web interface bundled with XAMPP, allows easy management of the MySQL database used in the project. This setup makes development and debugging accessible even for beginners.

### **5.3 PHP & MYSQL**

A PHP program consists of a series of PHP instructions written in a file with the .php extension. These instructions can include HTML for page layout, JavaScript for dynamic behavior, and SQL commands for database interaction. To create a PHP file, developers use code editors such as Visual Studio Code, Notepad++, or Sublime Text. After writing the code, the file is saved in the server root directory (e.g., htdocs in XAMPP), from which it can be accessed and executed via a web browser. MySQL handles data storage and retrieval for the Beauty Parlour Management System. It stores records for users, services, appointments, invoices, and contact forms. SQL queries such as SELECT, INSERT, UPDATE, and DELETE are embedded within PHP code to interact with the database. For example, when a user books an appointment, PHP captures the input and stores it in a table like tblbook. Data consistency is ensured through the use of primary keys and foreign keys across normalized tables. This combination of PHP and MySQL offers a powerful yet simple way to create full-stack web applications, making it highly suitable for a system like the Beauty Bliss Management.

## **CHAPTER 6**

### **TEST RESULT AND ANALYSIS**

#### **6.1 TESTING**

A program represents the logical functionality of a system and must be rigorously tested to ensure accuracy and reliability. For a program like the Beauty Management to function satisfactorily, it should compile and execute correctly while integrating seamlessly with all related modules. Program testing is primarily concerned with detecting two types of errors: syntax errors, which arise from improper code structure, and logical errors, which result in incorrect output despite error-free compilation.

Testing was conducted at various stages to verify the performance of all modules including user registration, service management, appointment booking, invoice generation, and report analysis. Each function's actual output was compared with the expected results to identify discrepancies. The system was broken down into smaller, manageable components that were tested individually to isolate and resolve bugs effectively. This systematic breakdown helped ensure data consistency, security, and expected functional output.

#### **6.2 TEST OBJECTIVES**

The primary objective of software testing is to detect errors and verify that the software meets the specified functional and performance requirements. A good test case is one that has a high probability of discovering previously unknown errors. The purpose of testing in this project is not just to find faults, but to validate that the system behaves as expected under normal and abnormal conditions.

## **6.3 PROGRAM TESTING**

Program testing is carried out by executing a predefined set of test cases that simulate real-world user interactions. These test cases were designed to evaluate each functionality of the system under different scenarios, including normal usage, boundary values, and invalid inputs. Each test case had clearly defined inputs, expected outputs, and actual results which were recorded for comparison.

During this process, if any deviation was identified between expected and actual results, the source code was examined, corrected, and retested. The goal was to ensure complete correctness and system robustness before deployment. The testing methodology used included both manual and automated testing techniques for better coverage.

## **6.4 TESTING AND CORRECTNESS**

Proper testing is critical to ensure that the Beauty Parlour Management System functions correctly and is free of bugs or performance issues. The following testing methodologies were employed:

### **6.4.1 Unit Testing**

Unit testing involves testing individual modules or components of the application in isolation. For example, the user registration form, service listing, and appointment booking were all tested independently. This ensured that each function worked correctly on its own before integration.

### **6.4.2 Integration Testing**

Once the individual units were verified, integration testing was conducted to ensure that these modules interact correctly with one another. For example, after booking an appointment, the details must correctly flow into the admin panel and the billing module.

### **6.4.3 Functional Testing**

This testing evaluated the application against the functional requirements defined in the specification. Test cases included user logins, service viewing, appointment booking, staff assignment, and invoice generation. All functionalities were validated to ensure they delivered the correct output. Additional objectives include verifying that the user interface is user-friendly and accessible, ensuring the back-end logic handles all database transactions correctly, and confirming that security measures such as user authentication and session handling are functioning properly. The testing phase also ensured that the application remains stable under stress conditions and provides a seamless experience across various devices and browsers.

### **6.4.4 White Box Testing**

White box testing involved checking the internal logic and structure of the code. It focused on code paths, loops, and conditions, ensuring all possible paths through the code were tested. This was used primarily for critical modules like user authentication and appointment scheduling logic.

### **6.4.5 Black Box Testing**

Black box testing focused on input-output behavior without considering internal code logic. It was used extensively to test forms, service selection, and data submission. Inputs were provided via the user interface, and outputs were validated against expected results.

## **6.5 ANALYSIS**

The testing process showed that the system performed well under a variety of input conditions and usage scenarios. All modules operated as expected, and test results consistently matched the expected outputs. No critical bugs were

found during functional testing, and the system displayed robustness in handling real-time inputs and concurrent user interactions.

Performance analysis also indicated that the system could handle multiple bookings simultaneously without lag. Reports and invoices were generated accurately and reflected real-time data from the database. All modules operated as expected, and test results consistently matched the expected outputs. Overall, the system achieved high stability, reliability, and accuracy meeting the desired objectives outlined in the initial project plan.

## **6.6 FEASIBILITY STUDY**

The feasibility study conducted for the Beauty Bliss Management covered the following areas:

### **6.6.1 Technical Feasibility:**

The system was built using widely available technologies (PHP, MySQL, HTML, CSS, JavaScript) that are compatible with common web servers like XAMPP and WAMP. This made the implementation technically feasible and cost-effective.

### **6.6.2 Economic Feasibility:**

The application is based on open-source technologies, which significantly reduces development costs. There is no need for licensing fees or costly infrastructure, making it suitable for small and medium-sized salons.

### **6.6.3 Operational Feasibility:**

The system's intuitive user interface ensures that both customers and admins can use it without technical training. The modules are designed to support real-world workflows, improving operational efficiency and service quality.



## **CHAPTER 7**

### **RESULT AND DISCUSSION**

#### **7.1 RESULT**

The Beauty Bliss Management was successfully developed and implemented to address the challenges of managing salon operations manually. During the testing phase, each functional module of the system—including appointment booking, user registration, service management, billing, and inventory tracking—was rigorously evaluated using real-world data. The system consistently delivered accurate outputs, correctly processed inputs, and generated appropriate results across multiple test cases and user scenarios.

The appointment booking module allowed customers to schedule services efficiently while preventing double-booking through real-time slot validation. Admin approval processes and staff assignment features functioned seamlessly, with updates reflecting across the system instantly. Service management allowed the admin to dynamically add, update, or delete services with changes immediately visible on the customer interface. Overall, the system performed well under typical salon workloads and supported smooth, error-free transactions throughout all user interactions.

#### **7.2 CONCLUSION**

The project successfully delivered a robust, web-based solution to automate core operations in a beauty parlour. Traditional manual methods, which often resulted in inefficiencies, scheduling errors, and inconsistent service delivery, were effectively replaced by a centralized platform that enhances both administrative control and customer experience. The system achieved all its design objectives and demonstrated stability, reliability, and usability during testing and user interaction.

### **7.3 FUTURE ENHANCEMENT**

While the current system provides a comprehensive platform for managing salon operations, there are several enhancements planned to extend its functionality and accessibility. One of the key future improvements is the development of a mobile application version of the system. This will enable users and administrators to access all features from their smartphones, with added support for push notifications, offline booking capabilities, and integration with device calendars and reminders.

A loyalty program module is also planned, allowing customers to earn points for each booking and redeem them for discounts or offers. Furthermore, advanced reporting and analytics features can be implemented, offering graphical dashboards that highlight revenue trends, customer retention rates, and inventory turnover. Integration with biometric systems (like facial recognition for check-ins or staff attendance) and support for multiple salon branches could help scale the system for chain businesses. These enhancements aim to future-proof the system, improve salon-client communication, and further streamline operations for long-term efficiency and growth.

## APPENDIX – 1

### SOURCE CODE

#### USER.PHP

```
<?php
session_start();
error_reporting(0);
include('includes/dbconnection.php');

if(isset($_POST['login']))
{
    $adminuser=$_POST['username'];
    $password=md5($_POST['password']);
    $query=mysqli_query($con,"select ID from tbladmin where
UserName='$adminuser' && Password='$password' ");
    $ret=mysqli_fetch_array($query);
    if($ret>0){
        $_SESSION['bpmsaid']=$ret['ID'];
        header('location:dashboard.php');
    }
    else{
        $msg="Invalid Details.";
    }
}
?>

<!DOCTYPE HTML>

<html>

<head>
```

```
<title>BPMS | Login Page </title>
```

```
<script type="application/x-javascript"> addEventListener("load", function() {  
setTimeout(hideURLbar, 0); }, false); function hideURLbar(){  
window.scrollTo(0,1); } </script>
```

```
<!-- Bootstrap Core CSS -->
```

```
<link href="css/bootstrap.css" rel='stylesheet' type='text/css' />
```

```
<!-- Custom CSS -->
```

```
<link href="css/style.css" rel='stylesheet' type='text/css' />
```

```
<!-- font CSS -->
```

```
<!-- font-awesome icons -->
```

```
<link href="css/font-awesome.css" rel="stylesheet">
```

```
<!-- //font-awesome icons -->
```

```
<!-- js-->
```

```
<script src="js/jquery-1.11.1.min.js"></script>
```

```
<script src="js/modernizr.custom.js"></script>
```

```
<!--webfonts-->
```

```
<link
```

```
href="//fonts.googleapis.com/css?family=Roboto+Condensed:400,300,300italic,  
400italic,700,700italic" rel='stylesheet' type='text/css'>
```

```
<!--//webfonts-->
```

```
<!--animate-->
```

```
<link href="css/animate.css" rel="stylesheet" type="text/css" media="all">
```

```
<script src="js/wow.min.js"></script>
```

```
<script>
```

```
new WOW().init();
```

```
</script>
```

```
<!--//end-animate-->
```

```
<!-- Metis Menu -->
```

```

<script src="js/metisMenu.min.js"></script>
<script src="js/custom.js"></script>
<link href="css/custom.css" rel="stylesheet">
<!--//Metis Menu -->
</head>
<body class="cbp-spmenu-push">
    <div class="main-content">

        <!-- main content start-->
        <div style="background-color: #F1F1F1; height:800px;">
            <div class="main-page login-page ">
                <h3 class="title1">SignIn Page</h3>
                <div class="widget-shadow">
                    <div class="login-top">
                        <h4>Welcome back to BPMS
AdminPanel ! </h4>
                    </div>
                    <div class="login-body">
                        <form role="form" method="post"
action="">
                            <p style="font-size:16px;
color:red" align="center"> <?php if($msg){
    echo $msg;
} ?> </p>
                            <input type="text" class="user"
name="username" placeholder="Username" required="true">
                            <input type="password"
name="password" class="lock" placeholder="Password" required="true">

```

```

name="login" value="Sign In">
<input type="submit"

<div class="forgot-grid">

    <div class="forgot">
        <a
href="../index.php">Back to Home</a>

    </div>
    <div class="clearfix">

</div>

</div>
<div class="forgot-grid">

    <div class="forgot">
        <a href="forgot-
password.php">forgot password?</a>

    </div>
    <div class="clearfix">

</div>

</div>

</div>
</form>
</div>
</div>
</div>
</div>
</div>

<!-- Classie -->
<script src="js/classie.js"></script>

```

```

<script>
    var menuLeft = document.getElementById( 'cbp-spmenu-s1'
),
        showLeftPush = document.getElementById(
'showLeftPush' ),
        body = document.body;

    showLeftPush.onclick = function() {
        classie.toggle( this, 'active' );
        classie.toggle( body, 'cbp-spmenu-push-toright' );
        classie.toggle( menuLeft, 'cbp-spmenu-open' );
        disableOther( 'showLeftPush' );
    };

    function disableOther( button ) {
        if( button !== 'showLeftPush' ) {
            classie.toggle( showLeftPush, 'disabled' );
        }
    }
</script>
<!--scrolling js-->
<script src="js/jquery.nicescroll.js"></script>
<script src="js/scripts.js"></script>
<!--//scrolling js-->
<!-- Bootstrap Core JavaScript -->
<script src="js/bootstrap.js"> </script>
</body>
</html>

```

## ADMIN.PHP

```
<?php
session_start();
error_reporting(0);
include('includes/dbconnection.php');
if (strlen($_SESSION['bpmsaid']==0)) {
    header('location:logout.php');
} else{

if(isset($_POST['submit']))
{
    $bpmsaid=$_SESSION['bpmsaid'];
    $pagetitle=$_POST['pagetitle'];
    $pagedes=$_POST['pagedes'];

    $query=mysqli_query($con,"update tblpage set
PageTitle='$pagetitle',PageDescription='$pagedes' where
PageType='aboutus'");
    if ($query) {
        $msg="About Us has been updated.";
    }
    else
    {
        $msg="Something Went Wrong. Please try again";
    }
}

?>

<!DOCTYPE HTML>
```



```

<html>
<head>
<title>BPMS | About Us</title>

<script type="application/x-javascript"> addEventListener("load", function() {
setTimeout(hideURLbar, 0); }, false); function hideURLbar(){
window.scrollTo(0,1); } </script>
<!-- Bootstrap Core CSS -->
<link href="css/bootstrap.css" rel='stylesheet' type='text/css' />
<!-- Custom CSS -->
<link href="css/style.css" rel='stylesheet' type='text/css' />
<!-- font CSS -->
<!-- font-awesome icons -->
<link href="css/font-awesome.css" rel="stylesheet">
<!-- //font-awesome icons -->
<!-- js-->
<script src="js/jquery-1.11.1.min.js"></script>
<script src="js/modernizr.custom.js"></script>
<!--webfonts-->
<link
href='//fonts.googleapis.com/css?family=Roboto+Condensed:400,300,300italic,
400italic,700,700italic' rel='stylesheet' type='text/css'>
<!--//webfonts-->
<!--animate-->
<link href="css/animate.css" rel="stylesheet" type="text/css" media="all">
<script src="js/wow.min.js"></script>
    <script>
        new WOW().init();
    </script>

```

```

<!--//end-animate-->
<!-- Metis Menu -->
<script src="js/metisMenu.min.js"></script>
<script src="js/custom.js"></script>
<link href="css/custom.css" rel="stylesheet">
<script src="http://js.nicedit.com/nicEdit-latest.js"
type="text/javascript"></script>
<script
type="text/javascript">bkLib.onDomLoaded(nicEditors.allTextAreas);</script>
</head>
<body class="cbp-spmenu-push">
    <div class="main-content">
        <!--left-fixed -navigation-->
        <?php include_once('includes/sidebar.php');?>
        <!--left-fixed -navigation-->
        <!-- header-starts -->
        <?php include_once('includes/header.php');?>
        <!-- //header-ends -->
        <!-- main content start-->
        <div id="page-wrapper">
            <div class="main-page">
                <div class="forms">
                    <h3 class="title1">Update About Us</h3>
                    <div class="form-grids row widget-shadow"
data-example-id="basic-forms">
                        <div class="form-title">
                            <h4>Update About Us:</h4>
                        </div>
                        <div class="form-body">

```

```

        <form method="post">
            <p style="font-size:16px;
color:red" align="center"> <?php if($msg){
    echo $msg;
} ?> </p>
    <?php

$ret=mysqli_query($con,"select * from tblpage where PageType='aboutus'");
$cnt=1;
while ($row=mysqli_fetch_array($ret)) {

?>

    <div class="form-group"> <label for="exampleInputEmail1">Page
Title</label> <input type="text" class="form-control" name="pagetitle"
id="pagetitle" value="<?php echo $row['PageTitle'];?>" required="true">
</div> <div class="form-group"> <label for="exampleInputPassword1">Page
Description</label> <textarea name="pagedes" id="pagedes" rows="5"
class="form-control">
    <?php echo $row['PageDescription'];?></textarea> </div>
    <?php } ?>
    <button type="submit" name="submit" class="btn btn-
default">Update</button> </form>

        </div>

    </div>

</div>

```

```

        </div>
        <?php include_once('includes/footer.php');?>
    </div>
    <!-- Classie -->
    <script src="js/classie.js"></script>
    <script>
        var menuLeft = document.getElementById( 'cbp-spmenu-s1'
),
        showLeftPush = document.getElementById(
'showLeftPush' ),
        body = document.body;

        showLeftPush.onclick = function() {
            classie.toggle( this, 'active' );
            classie.toggle( body, 'cbp-spmenu-push-toright' );
            classie.toggle( menuLeft, 'cbp-spmenu-open' );
            disableOther( 'showLeftPush' );
        };

        function disableOther( button ) {
            if( button !== 'showLeftPush' ) {
                classie.toggle( showLeftPush, 'disabled' );
            }
        }
    </script>
    <!--scrolling js-->
    <script src="js/jquery.nicescroll.js"></script>
    <script src="js/scripts.js"></script>
    <!--//scrolling js-->

```

```

        <!-- Bootstrap Core JavaScript -->
        <script src="js/bootstrap.js"> </script>
    </body>
</html>
<?php } ?>

```

## INDEX.PHP

```

<?php
session_start();
error_reporting(0);
include('includes/dbconnection.php');

if(isset($_POST['login']))
{
    $adminuser=$_POST['username'];
    $password=md5($_POST['password']);
    $query=mysqli_query($con,"select ID from tbladmin where
UserName='$adminuser' && Password='$password' ");
    $ret=mysqli_fetch_array($query);
    if($ret>0){
        $_SESSION['bpmsaid']=$ret['ID'];
        header('location:dashboard.php');
    }
    else{
        $msg="Invalid Details.";
    }
}
?>
<!DOCTYPE HTML>

```

```

<html>
<head>
<title>BPMS | Login Page </title>

<script type="application/x-javascript"> addEventListener("load", function() {
setTimeout(hideURLbar, 0); }, false); function hideURLbar(){
window.scrollTo(0,1); } </script>
<!-- Bootstrap Core CSS -->
<link href="css/bootstrap.css" rel='stylesheet' type='text/css' />
<!-- Custom CSS -->
<link href="css/style.css" rel='stylesheet' type='text/css' />
<!-- font CSS -->
<!-- font-awesome icons -->
<link href="css/font-awesome.css" rel="stylesheet">
<!-- //font-awesome icons -->
<!-- js-->
<script src="js/jquery-1.11.1.min.js"></script>
<script src="js/modernizr.custom.js"></script>
<!--webfonts-->
<link
href='//fonts.googleapis.com/css?family=Roboto+Condensed:400,300,300italic,
400italic,700,700italic' rel='stylesheet' type='text/css'>
<!--//webfonts-->
<!--animate-->
<link href="css/animate.css" rel="stylesheet" type="text/css" media="all">
<script src="js/wow.min.js"></script>
    <script>
        new WOW().init();
    </script>

```

```

<!--//end-animate-->
<!-- Metis Menu -->
<script src="js/metisMenu.min.js"></script>
<script src="js/custom.js"></script>
<link href="css/custom.css" rel="stylesheet">
<!--//Metis Menu -->
</head>
<body class="cbp-spmenu-push">
    <div class="main-content">

        <!-- main content start-->
        <div style="background-color: #F1F1F1; height:800px;">
            <div class="main-page login-page ">
                <h3 class="title1">SignIn Page</h3>
                <div class="widget-shadow">
                    <div class="login-top">
                        <h4>Welcome back to BPMS
AdminPanel ! </h4>

                    </div>
                    <div class="login-body">
                        <form role="form" method="post"
action="">

                            <p style="font-size:16px;
color:red" align="center"> <?php if($msg){
    echo $msg;
} ?> </p>

                            <input type="text" class="user"
name="username" placeholder="Username" required="true">

```

```

        <input type="password"
name="password" class="lock" placeholder="Password" required="true">
        <input type="submit"
name="login" value="Sign In">

        <div class="forgot-grid">

            <div class="forgot">
                <a
href="../index.php">Back to Home</a>

            </div>
            <div class="clearfix">

        </div>

    </div>
    <div class="forgot-grid">

        <div class="forgot">
            </div>
            <div class="clearfix">

        </div>
    </form>
</div>
</div>
</div>
</div>
</div>
</div>
<!-- Classie -->
    <script src="js/classie.js"></script>
    <script>

```



```

        var menuLeft = document.getElementById( 'cbp-spmenu-s1'
    ),

        showLeftPush = document.getElemen
        body = document.body;

    showLeftPush.onclick = function() {
        classie.toggle( this, 'active' );
        classie.toggle( body, 'cbp-spmenu-push-toright' );
        classie.toggle( menuLeft, 'cbp-spmenu-open' );
        disableOther( 'showLeftPush' );
    };

    function disableOther( button ) {
        if( button !== 'showLeftPush' ) {
            classie.toggle( showLeftPush, 'disabled' );
        }
    }
</script>
<!--scrolling js-->
<script src="js/jquery.nicescroll.js"></script>
<script src="js/scripts.js"></script>
<!--//scrolling js-->
<!-- Bootstrap Core JavaScript -->
<script src="js/bootstrap.js"> </script>
</body>
</html>

```

## APPENDIX – 2

## SCREENSHOTS

### Output

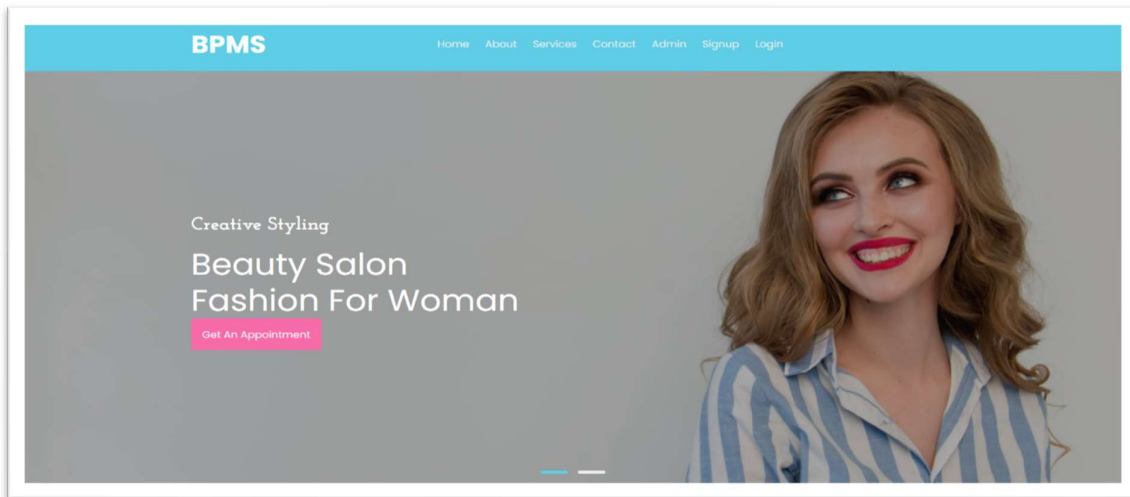


Fig.A.2.1: Home Page

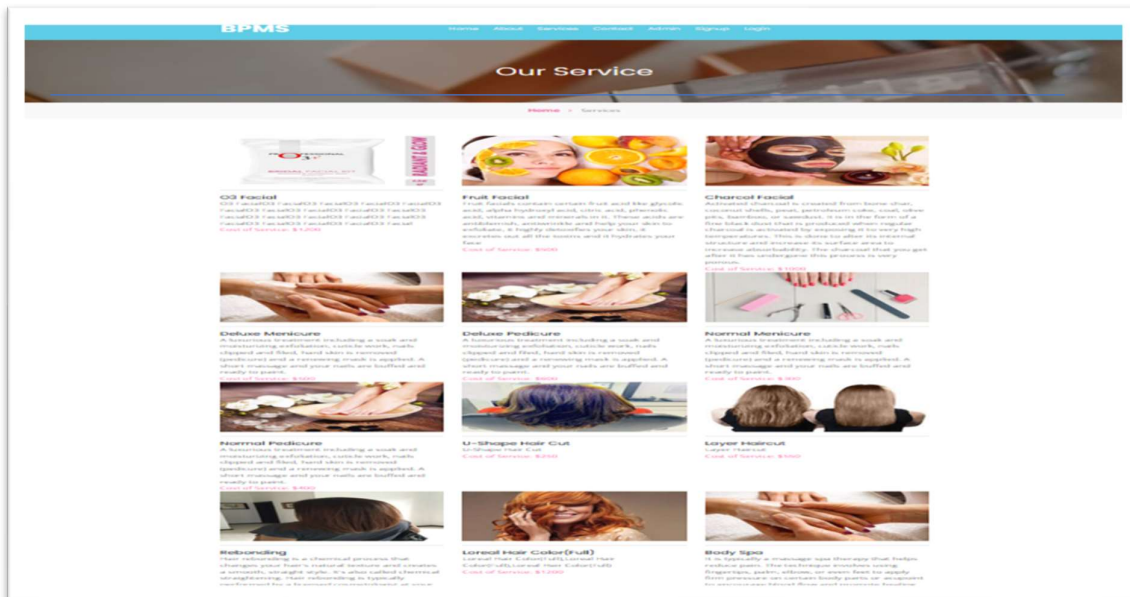


Fig.A.2.2: Service page

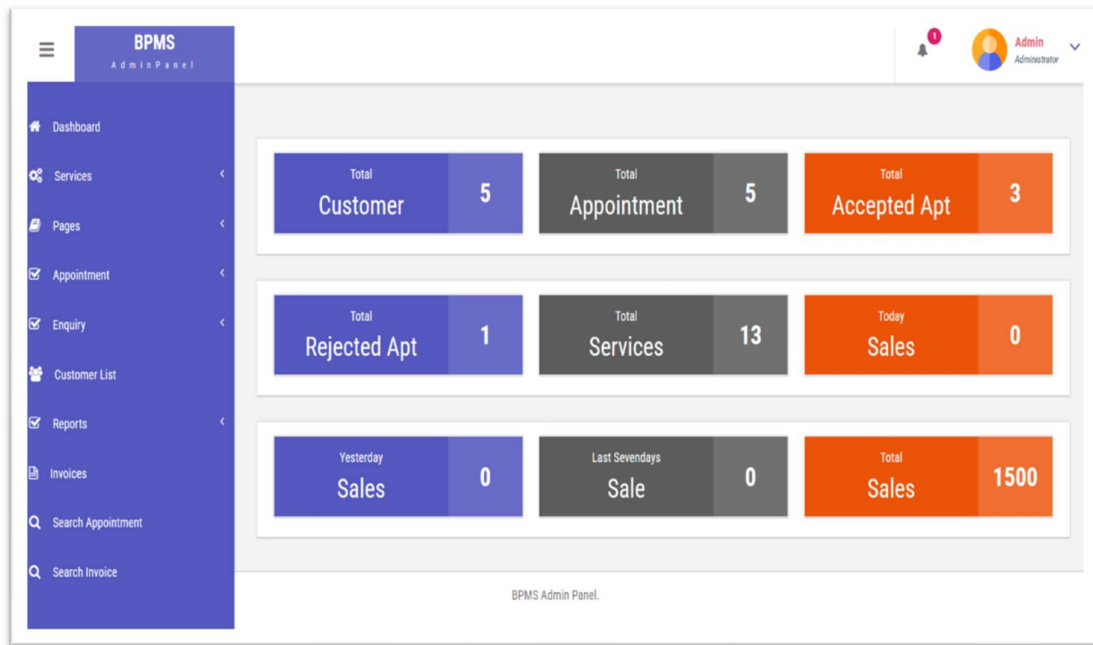


Fig.A.2.3: Admin page

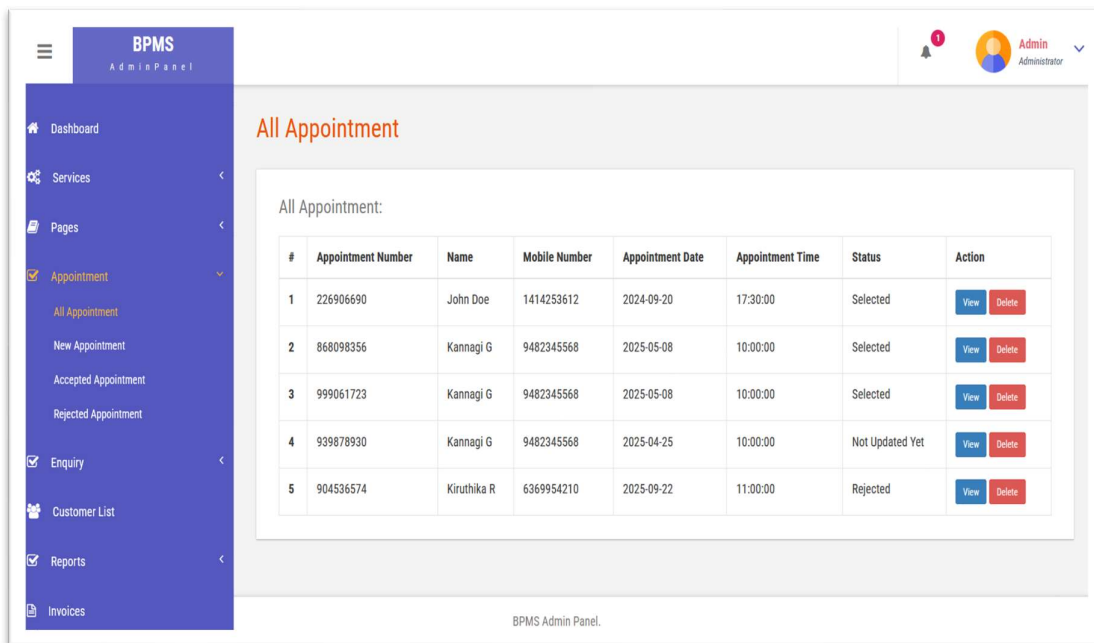


Fig.A.2.4: Appointment List

Fig.A.2.5: Customer Login page

Fig.A.2.6: Appointment Booking

## REFERENCES

1. PHP Gurukul. (2022). Beauty Parlour Management System using PHP and MySQL [Web application and report]. Retrieved from <https://phpgurukul.com/beauty-parlour-management-system-using-php-and-mysql/>
2. Kumar, A. (2019). Online Beauty Salon Booking System. *International Journal of Computer Applications*, 975(8887).
3. Maria, V. N., Dhanush, S., & Ranjitha, R. (2020). Development of Spa and Beauty Salon Management System. *International Journal of Advanced Research in Computer Engineering & Technology (IJARCET)*, 9(5), 2155–2161.
4. Singh, S., & Mehta, A. (2018). Customer Relationship Management in Salons Using Digital Tools. *Journal of Business and Technology*, 6(3), 144–150.
5. Priya, R., & Ramesh, M. (2021). A Study on Inventory and Appointment Management in Salons. *International Journal of Engineering Research & Technology (IJERT)*, 10(7), 1–4.
6. Sowmiya, R., & Prakash, K. (2020). Design and Development of a Salon Automation System. *International Research Journal of Engineering and Technology (IRJET)*, 7(9), 100–105.
7. Sharma, S., & Roy, A. (2019). E-Parlour: Web-Based Beauty Parlour Management System. *International Journal of Recent Technology and Engineering (IJRTE)*, 8(4), 2562–2566.
8. Mishra, A., & Das, M. (2021). Smart Salon Management Using IoT and Web Technologies. *Proceedings of the International Conference on Smart Computing and Communication*, 12(3), 181–186.