

Project Title: Salon Management System

Developed Using:

PHP, MySQL, HTML, CSS, Bootstrap, XAMPP

Approach

My development approach for the Salon Management System was modular, systematic, and phased. Here's a breakdown of the key steps:

1. Requirement Analysis

- Identified core functionalities: Service Management, Staff Management, and Admin Control.
- Defined database schema with normalized tables (tblservices, tblstaff, tbladmin)etc.

2. Environment Setup

- Used XAMPP to configure Apache server and MySQL database locally.
- Created a structured project directory (includes, admin, etc.) for better code organization.

3. Backend Development (PHP & MySQL)

- Built dynamic forms for CRUD operations.
- Implemented session-based admin login for security.
- Used MySQL queries to store and retrieve data from the database.

4. Frontend Design (HTML, CSS, Bootstrap)

- Developed clean and responsive UI using Bootstrap.

- Used HTML forms for input, styled with CSS.

5. Testing and Debugging

- Tested each module independently.
- Validated form inputs, error messages, and database interactions.

6. Enhancement and Final Touches

- Added timestamps like `CreationDate`.
- Sorted tables and added edit/delete buttons for better UX.

Challenges Faced

Session Management

- **Issue:** Unauthorized access without login.
- **Solution:** Used PHP sessions to verify login state and redirect to login page if not authenticated.

Form Validation

- **Issue:** Users were submitting incomplete or invalid data.
- **Solution:** Implemented frontend validation with HTML5 attributes and added backend checks in PHP.

UI Responsiveness

- **Issue:** Layout broke on smaller screens.
- **Solution:** Adopted Bootstrap grid system and responsive elements for consistent layout.

Database Table Linking

- **Issue:** Initially, tables were not properly normalized.
- **Solution:** Refactored schema to ensure proper foreign key relationships where needed.

Dynamic Staff Allocation

- **Issue:** Displaying only relevant staff for selected services in forms.

Conclusion

Despite challenges, we successfully developed a modular, dynamic, and user-friendly Salon Management System. This project strengthened our skills in:

- Backend development with PHP & MySQL
- Frontend UI design with Bootstrap
- Session handling and data validation
- Real-world problem-solving in web development