**RESEARCH & INNOVATION  
GlowUp WebApp**

Traditionally, GlowUp Salon & Barbershop has been run by clients who either call to schedule appointments or go in to see if there are any available hairstylists and nail technicians. Long wait times, schedule problems, and unsatisfied customers are frequently the results of this manual approach. While the salon deals with overbookings, no-show clients, and lost revenue from ineffective appointment scheduling, clients find it difficult to find suitable time slots that work with their schedules.  
In order to overcome these obstacles, GlowUp has made the decision to put in place an online booking system that enables clients to easily peruse the various hairstyling, haircuts, and nail services, pick their favorite specialist, and schedule appointments ahead of time. This solution will improve business operations by streamlining scheduling, decreasing no-shows through reminders and deposits, and increasing the general customer experience.

**Aim:**

The project's goal is to provide an easy-to-use and effective digital appointment scheduling system for barbershops and salons so that clients can easily schedule haircuts, manicure services, and hairstyling. By giving users an intuitive platform to browse services, choose stylists, schedule appointments, pay, and receive loyalty benefits, the system will improve customer satisfaction, expedite appointment management, and lower no-show rates

**Objectives**

The main objectives of this project are to **develop a secure and user-friendly appointment booking system** for barbershops and salons. The system will allow users to **browse services, book appointments, upload custom hairstyle/nail requests, and make payments** while enabling businesses to **manage bookings efficiently**. It will feature **real-time scheduling, notifications, a loyalty and referral program, and a rating system** to enhance user experience. Additionally, the project will focus on **data security, mobile responsiveness, admin management, customer support, and performance optimization** to ensure a seamless and reliable service.  
  
**FUNCTIONAL REQUIREMENTS**  
1. Users (customers) must be able to create an account using email and password or social login (e.g., Google, Facebook).  
2. Users must be able to log in and log out securely.  
3. Users must be able to update their profile details (e.g., name, contact info, profile picture).  
4. Users must be able to browse a catalogue of available services, including **hairstyles, haircuts, and nail services**, categorized into men’s and women’s sections.  
5. Users must be able to search and filter services by name, price range, or estimated duration.  
6. Users must be able to upload a custom image under an "Others" option if their desired style or nail design is not listed.  
7. Users must be able to view service details, including estimated price, duration, and a description.  
8. Users must be able to view available time slots for their selected service and preferred date.  
9. Users must be able to see a list of available barbers/stylists/nail technicians and choose one.  
10. Users must be able to request an appointment by selecting a service, a professional, and a time slot.  
11. The system must send the appointment request to the barbershop/salon for approval, allowing the business to accept, decline, or suggest modifications.  
12. Users must be notified (via app notification) when their appointment is approved, declined, or modified.  
13. Users must be able to cancel or reschedule their appointment before a set deadline.  
14. Users must be able to view their upcoming and past appointments in their profile.  
15. Users must be able to make a deposit payment to confirm their appointment after approval.  
16. Users must be able to choose from multiple payment methods (e.g., credit/debit card, mobile payment) and complete the payment in-app. Users will have to select a payment method per every transaction.  
17. Users must be able to leave a rating and review for their barber/stylist/nail technician after the appointment.  
18. Users must be able to receive feedback from the barbershop/stylist regarding their request or any modifications needed. Modifications are to be sent as notifications.  
19. Users must earn loyalty points for each completed appointment, based on service price or predefined criteria.

20. Users must be able to view their accumulated loyalty points in their profile and redeem them for discounts or free services. Their points will have no expiration date whatsoever

**Deliverables**

* **System Architecture Document** – Explanation of how different components (frontend, backend, database, APIs) interact.
* **Entity-Relationship Diagram (ERD)** – Visual representation of the database structure.
* **Wireframes & UI/UX Designs** – Mockups of the app’s interface for different screens.
* **Web Application** – Fully functional booking system accessible via web browsers.

**Skills Required**

* Frontend Development (HTML, CSS, JavaScript, React or Vue.js)
* Backend Development (Node.js, Python, or Java)
* Database Management (MySQL, PostgreSQL, or MongoDB)
* API Development and Integration

**Methodology**

This project will follow the Agile Software Development Methodology, specifically the Scrum framework, to ensure an efficient, user-driven, and iterative development process. Agile will help in managing changes, improving collaboration, and delivering a high-quality product through multiple sprints (development cycles).

**Limitations & Constraints**

**1. Database Management**

**Constraint:** The system must efficiently handle user accounts, appointment scheduling, payments, and loyalty points without performance issues.  
**Mitigation Strategy:** The database will be optimized using **indexed queries, caching mechanisms, and normalization techniques**. Additionally, **MySQL** will be used for structured data storage.

**2. Development Timeline**

**Constraint:** The project must be completed within a **fixed time frame** (as per academic or business requirements).  
**Mitigation Strategy:** The team will follow the **Agile methodology with Scrum**, ensuring that development is done in small, manageable sprints. A **Gantt chart** will be used to track progress and meet deadlines.

**3. Testing & Bug Fixing**

**Constraint:** Limited time for quality assurance (QA) testing may lead to undetected bugs at launch.  
**Mitigation Strategy:**

* Perform **unit testing and integration testing** during development.