

Hair Salon Booking System Documentation

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1. Business Description

1.1 Introduction

The Hair Salon Booking System is a web-based application designed to streamline the appointment scheduling process for salon clients and hairdressers. This solution replaces manual phone calls and paper-based calendars with an intuitive, self-service portal, enabling users to book, manage, and edit appointments online.

1.2 Motivation

- **Efficiency:** Reduce front-desk workload by empowering clients to self-book and manage appointments.
- **Accuracy:** Eliminate double-bookings and scheduling errors through real-time availability checks.
- **Accessibility:** Provide 24/7 access to booking services via desktop and mobile devices.
- **Customer Satisfaction:** Offer greater flexibility and transparency in appointment management, leading to improved client loyalty.

1.3 Main Features

- **User Registration & Authentication:** Secure sign-up, login, and profile management.
- **Service Catalog:** Browse detailed descriptions, durations, and pricing of salon services.
- **Appointment Booking:** Select service, date, time, and preferred hairdresser.
- **Appointment Management:** Edit or cancel upcoming bookings; view appointment history.
- **Role Duality:** Users may act as clients or hairdressers, with separate dashboards and permissions.

2. Software Requirements Specification (SRS)

2.1 Functional Requirements

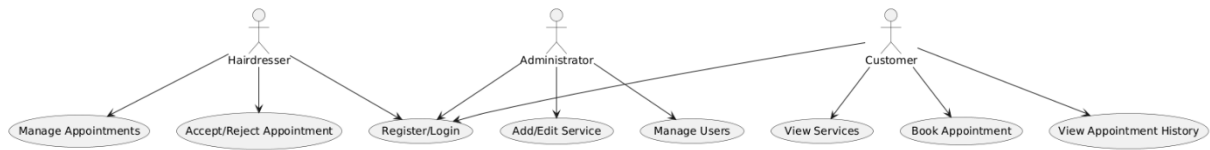
ID	Requirement	User Story / Use Case
FR-01	User registration and login	As a visitor, I want to register and authenticate securely so that I can manage bookings.
FR-02	View list of available salon services	As an authenticated user, I want to see all services so I can choose one to book.
FR-03	Book an appointment	As a client, I want to reserve a service at a chosen date/time with a hairdresser.
FR-04	Edit appointment	As a client, I want to modify the date/time or service of my upcoming appointment.
FR-05	Cancel appointment	As a client, I want to cancel a scheduled appointment.
FR-06	Manage profile	As a user, I want to update my personal details and profile picture.
FR-07	Hairdresser dashboard	As a hairdresser, I want to view my upcoming appointments.

2.2 Non-Functional Requirements

- **NFR-01 Performance:** Pages must load within 2 seconds under normal load.
- **NFR-02 Security:** Data storage must follow OWASP guidelines; all passwords hashed.
- **NFR-03 Usability:** UI should be responsive and mobile-friendly.
- **NFR-04 Availability:** System uptime $\geq 99.5\%$ monthly.
- **NFR-05 Maintainability:** Codebase must follow SOLID principles with unit test coverage $\geq 80\%$.

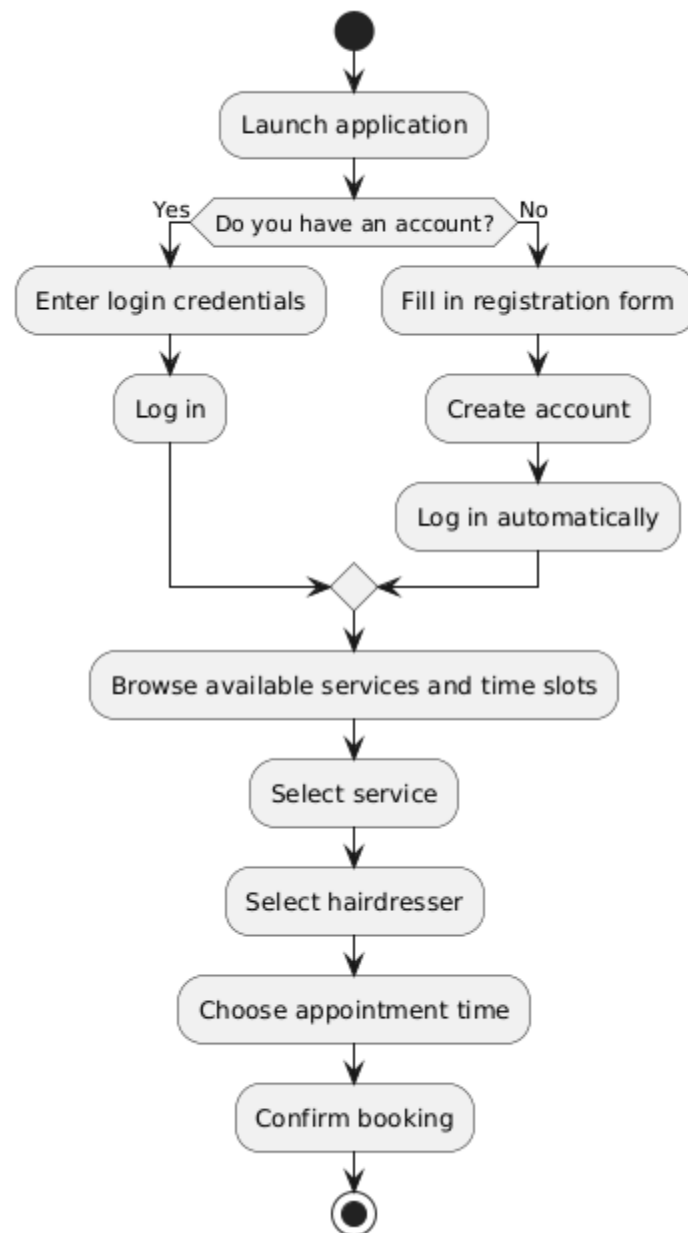
3. System Design Models

3.1 Use Case Diagram

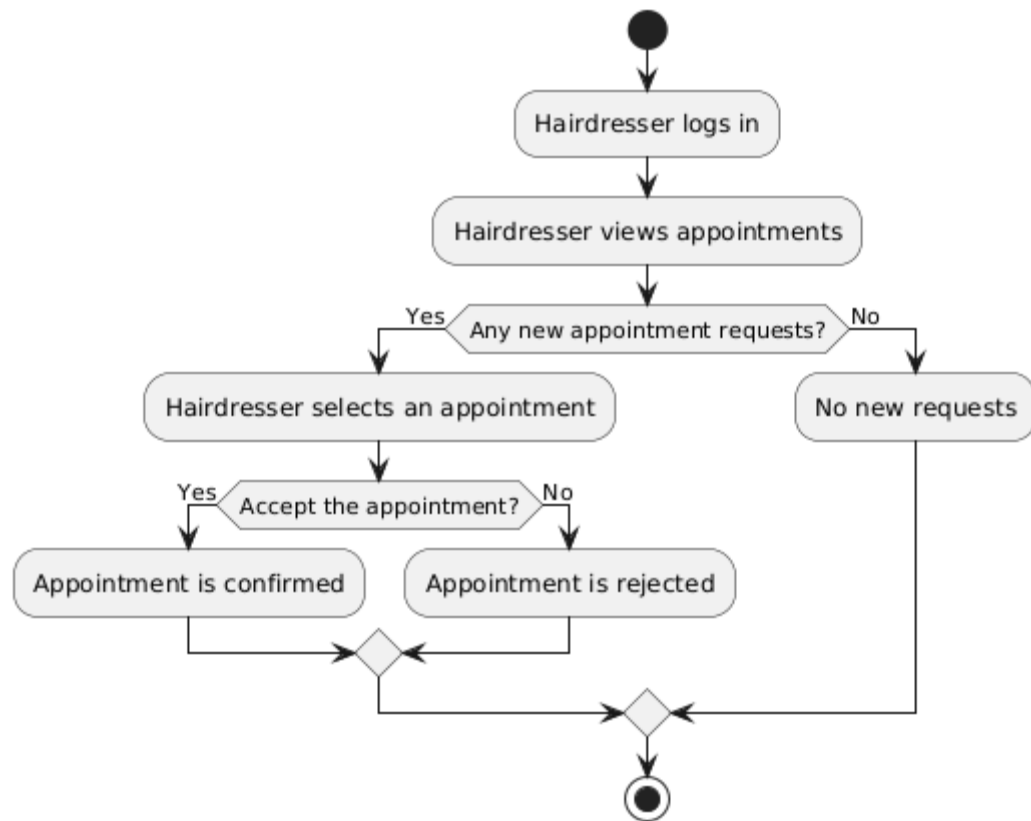


3.2 Activity Diagram:

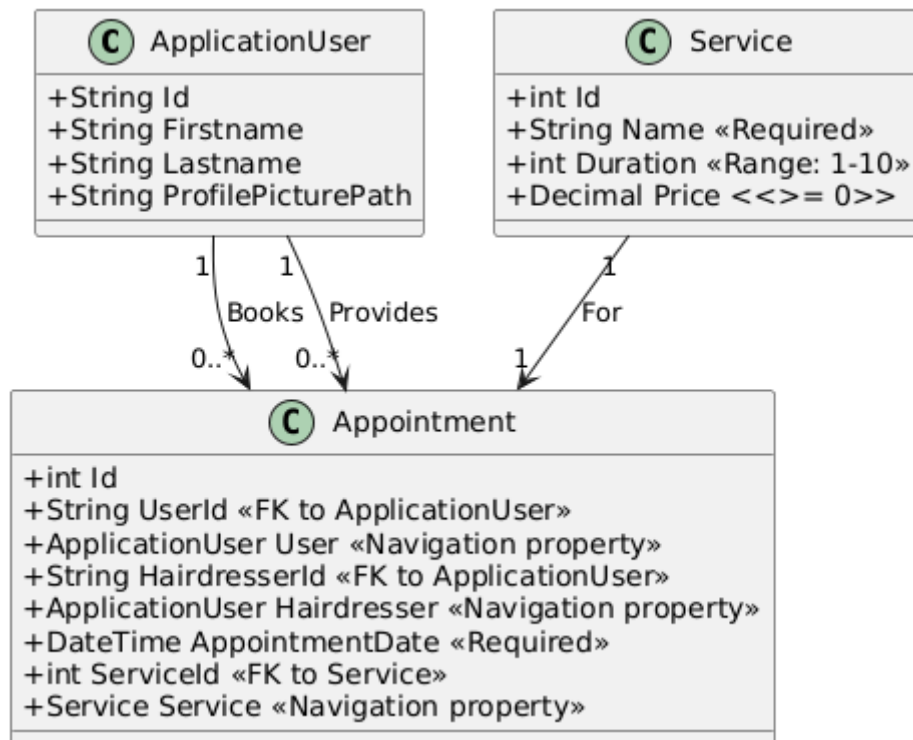
Customer:



Hairdresser:

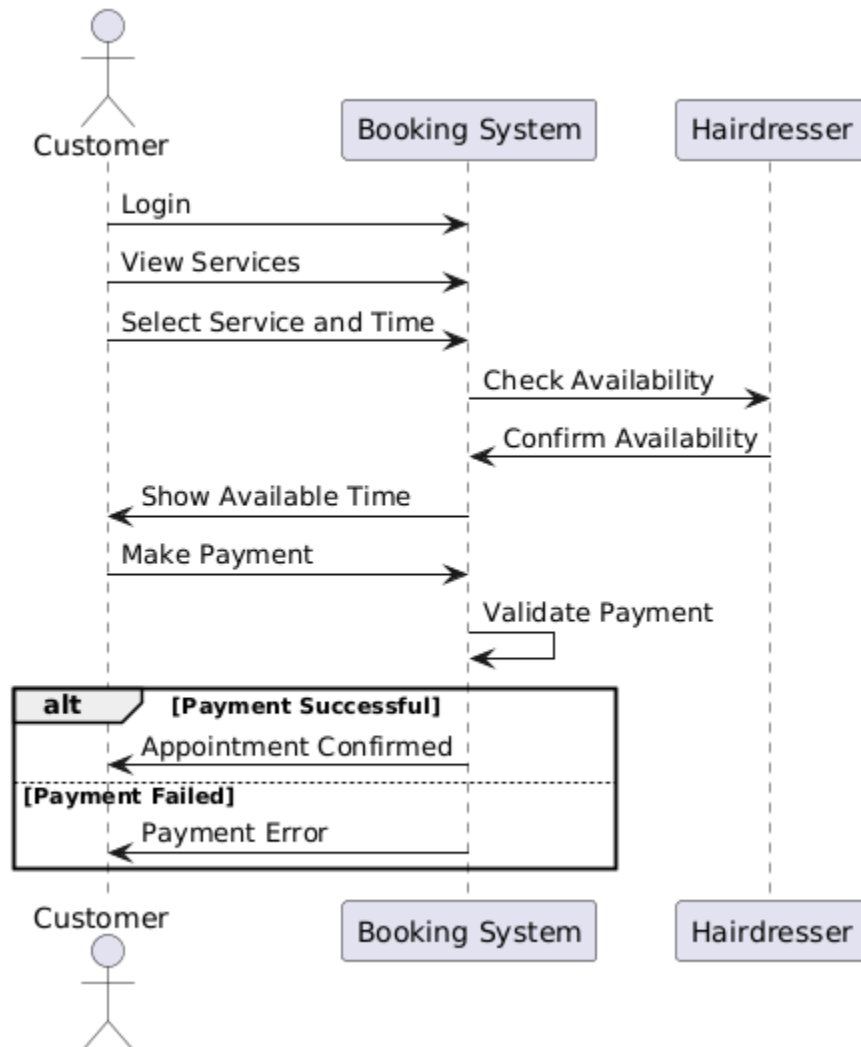


3.3 Class Diagram (Domain Model)

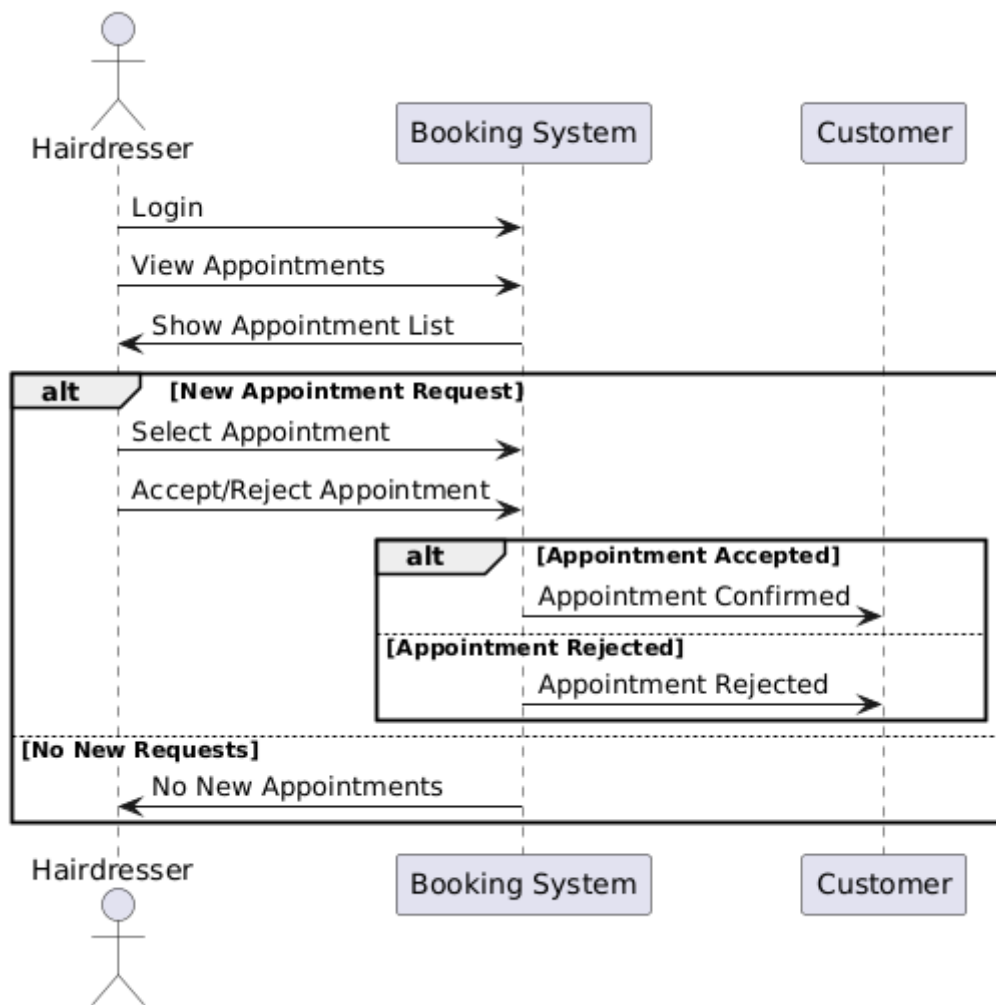


3.4 Sequence Diagram

Customer:



Hairdresser:



4. System Prototype

4.1 User Interface Design

- **Homepage:** Logo, navigation bar (Services, My Appointments, Profile, Logout).
- **Services Page:** Grid of service cards with name, duration, price, "Book" button.
- **Booking Wizard:** Stepper component (Select Service → Choose Date/Time → Confirm).
- **My Appointments:** Table listing upcoming and past appointments with Edit/Cancel actions.
- **Profile:** Form to edit personal details and upload profile picture.

<https://www.figma.com/design/BZ9nexmrP2pesFUMbVBk6C/Hairdressing?node-id=1-2&t=9qVHa9PBK9gOwxZD-1>

4.2 Technology Stack and Architecture

- **Backend:** ASP.NET Core MVC, C# 10, Entity Framework Core 7, SQL Server.
- **Authentication:** ASP.NET Identity with cookie-based auth.
- **Frontend:** Razor Views, Bootstrap 5 for responsive layout.
- **UML & Diagramming:** PlantUML for documenting models.
- **Version Control:** Git repository initialized with feature branches and pull-request workflow.
- **Testing:** xUnit for unit tests; Selenium for end-to-end UI tests.

4.3 Repository & Source Code

- A Git repository was created at:
https://github.com/GrzegorzOlejniczak/HairSalon_Source
- The selected scope implemented includes user registration, service browsing, and appointment booking.
- All source code is packaged in the attached ZIP file: **HairSalonApp_Source.zip**.