



BARBER SHOP MANAGEMENT SYSTEM

Project Manager: Emad Abbasi

Team Members: Emad Abbasi, Sarah Yao, Trinity Klein, Jeremiah Jarina, Anthony Perla, Elias Moshhood, Isiah Morales



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Barber Shop Management System – Project Scope Statement

CIS 4375 – Capstone Team | Spring 2025

Project Manager: Emad Abbasi

Team Members: Emad Abbasi, Sarah Yao, Trinity Klein, Jeremiah Jarina, Anthony Perla, Elias Moshood, Isiah Morales

Sponsor: Carlos "El Tigre" Zuniga Cuts, Local Barber (*Contact via Product Owner, Anthony Perla*)

Project Objectives

The primary objective of this capstone project is to develop a web-based Barber Shop Management System tailored to the operational needs of a local barber. This system will streamline appointment scheduling, centralize customer data management, and provide essential business insights. By replacing manual processes with an automated digital platform, the barber will be able to increase efficiency, reduce scheduling errors, and offer an enhanced experience for clients. The project will serve as a demonstration of the team's technical capabilities in full-stack development, user experience design, and Agile project execution within a real-world setting.

The system aims to deliver several key outcomes. These include the implementation of an intuitive appointment scheduling interface, the development of a secure and scalable customer database, and the creation of a reporting module that visualizes appointment activity and

business performance. Security and scalability are integral to the platform's design to ensure that it remains adaptable to future needs. Throughout the project, Agile methodologies such as sprint planning, backlog grooming, and iterative development will be used to guide progress and stakeholder engagement.

Project Scope

This project encompasses the full-stack development of a web-based application, incorporating front-end user interface design, back-end server logic, and a relational database structure. The system will support user authentication with role-based access for barbers and staff, an appointment management module allowing for scheduling, rescheduling, and cancellations, and a secure customer profile feature that stores client contact details and service history. A basic reporting dashboard will provide data visualizations that allow the business owner to track appointment trends, frequency, and operational insights. Data security protocols, including encrypted login credentials and secure access control, will be implemented to protect sensitive information.

The scope of this project does not include the integration of third-party payment processing systems. Additionally, advanced data analytics, predictive modeling, and regulatory compliance frameworks such as HIPAA or PCI DSS are outside the scope due to the small-business nature of the client and the academic parameters of the capstone. Long-term maintenance or updates after the project's final presentation will not be covered within this effort.

Change Control for Payment API Integration

Although payment processing is currently outside of the defined project scope, the development team acknowledges that the sponsor may wish to add this feature in the future. Should the need arise to integrate a third-party payment API—such as Stripe, Square, or PayPal—a formal change control process must be initiated. This process includes the submission of a written change request by the Product Owner or sponsor, followed by a feasibility and impact assessment conducted by the development team. If the change is approved, it will result in revisions to the project scope, timeline, and resource allocation. The modification will be documented and reflected in the product backlog with prioritization agreed upon by the team and sponsor. No scope changes will be implemented without formal review and approval.

Deliverables

Upon completion, the project will deliver a fully functional web application that meets the operational requirements of the sponsor. The deliverables will include a live test deployment of the system, a GitHub repository containing the complete source code and revision history, technical documentation covering system architecture, database schema, and API references, and a user guide that supports daily use by barbers and staff. Additionally, a final project presentation will be delivered to both the course faculty and the project sponsor, demonstrating the completed functionality and the development process.

Key Milestones and Timeline

The project will follow a structured timeline beginning with the approval of the project charter. Subsequent milestones include the completion of database design by February 17, 2025, followed by the implementation of the user authentication system by March 2, 2025.

Appointment scheduling features will be developed and integrated by March 16, 2025, with the reporting dashboard completed by March 30, 2025. Final testing and user acceptance testing (UAT) with the sponsor will be conducted by April 13, 2025. The project will conclude with the final presentation and submission on April 28, 2025.

Constraints and Assumptions

The project must be completed within the ten-week capstone schedule and will be developed by a fixed team size without additional external resources. Due to budget limitations, only free or low-cost development tools and cloud services will be utilized. While the system will incorporate standard security protocols, it will not require or be audited for formal compliance with regulatory frameworks.

It is assumed that the sponsor will be available for regular communication and sprint reviews. All team members are expected to contribute consistently throughout the development cycle. The project will rely on tools such as Azure DevOps for Agile management and GitHub for version control.

Success Criteria

The success of the project will be measured by the delivery of a fully operational appointment scheduling and customer management system that meets the sponsor's expectations. The application must provide a stable and user-friendly experience with minimal critical issues and downtime. All agreed-upon deliverables must be completed and submitted on time. The capstone presentation will serve as a final demonstration of the team's work and must reflect professional standards in both content and execution.

Authorization and Approvals

This document will be finalized upon the review and approval of the individuals listed below:

Emad Muhammed Abbasi, serving as the Project Manager and Scrum Master

Trinity L. Klein, in the role of Assistant Project Manager

Anthony Moises Perla, acting as the Product Owner

The local barber, representing the project sponsor and primary stakeholder

The course instructor or instructional assistant, serving as the academic evaluator