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# BARBER SHOP MANAGEMENT SYSTEM

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Project Manager: Emad Abbasi

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



SPRING 2025

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# Barber Shop Management System – WBS

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*)

## WBS

1. Decide team cadence
  - a. Research Agile team cadence best practices
  - b. Schedule and confirm meeting times with the team
  - c. Document team cadence and share with all members
2. Design team branding
  - a. Brainstorm team name, colors, and branding styles
  - b. Create logo and branding assets
  - c. Finalize and approve branding design
3. Decide PM methodology
  - a. Research Agile methodologies (Scrum, Kanban, Hybrid)
  - b. Discuss and decide on the best methodology for the project
  - c. Document and share the selected methodology
4. Get a sponsor strategy
  - a. Research potential outreach methods for engaging the sponsor

- b. Draft and refine a sponsor outreach message
  - c. Assign a team member to initiate sponsor communication
- 5. Set up technical infrastructure
  - a. Configure Azure DevOps board and assign team roles
  - b. Set up communication channels (Teams)
  - c. Ensure all members have access to necessary tools
- 6. Get a GitHub repository setup
  - a. Create GitHub repository and define repository structure
  - b. Set up branching strategy (main, dev, feature branches)
  - c. Invite team members and test access permissions
- 7. Document SDLC process
  - a. Draft SDLC document and share with the team
  - b. Research and define the Software Development Life Cycle (SDLC) approach
  - c. Finalize and store the document in a shared repository
- 8. Implement User Authentication
  - a. Convert password to hash
  - b. Implement a token-based authentication
  - c. Implement role-based authentication for dashboard (Barber & Admin Role)
- 9. Implement Role-Based Access Control
  - a. Admin role (Employer/Owner) – Full access on dashboard menus, including Appointment menu (Find/Create), Services (Find/Create) menu, Customer (Find/Create) menu, User menu, Payment menu, and Barbers (Find/Create) menu.
  - b. Customer role (Guest) – Restricted access on dashboard, Appointments menu via Website, Payment via Website

- c. Barber role (Employee) – Have access to the dashboard with restriction access like Barbers menu, User menu, and Payment menu.
- 10. Set Up Database Schema
  - a. Design Entity-Relationship Diagram (ERD) for database structure
  - b. Define and create tables (Users, Appointments, Customers, etc.)
  - c. Implement relationships (foreign keys, constraints)
- 11. Create Appointment Scheduling UI
  - a. Develop front-end form for booking appointments
  - b. Implement responsive UI for mobile and desktop
  - c. Integrate UI with backend API for appointment management
- 12. Develop Appointment CRUD Operations
  - a. Create backend API for appointment creation, retrieval, update, and deletion
  - b. Implement appointment validation (e.g., no double booking, valid time slots)
  - c. Connect database with front-end UI for real-time updates
  - d. Test CRUD operations for data consistency and security
- 13. Customer Profile Management
  - a. Develop UI for viewing and updating customer information
  - b. Implement backend logic for storing and retrieving customer data
  - c. Secure customer information with encryption for sensitive fields
  - d. Create customer history tracking for past appointments
- 14. Appointment Notifications
  - a. Implement email notification system for appointment confirmations/cancellations
- 15. Reporting Dashboard
  - a. Design and implement UI for analytics dashboard

- b. Add filters for customized reporting (date range, service type, revenue insights)

16. Conduct User Acceptance Testing (UAT)

- a. Define test scenarios and acceptance criteria based on requirements
- b. Perform UAT with sponsor and key stakeholders
- c. Collect feedback and document issues for improvement
- d. Resolve UAT-reported issues before final deployment

17. Finalize Documentation & Presentation

- a. Complete technical documentation (database schema, API docs)
- b. Prepare user guide for barbers and customers
- c. Create final capstone presentation slides
- d. Conduct a final review with the team before submission