

**Milestone 1 – Team Charter**

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# Team Charter Document

## Project Title

**Smart Checkout Nexus: Revolutionizing Retail Connectivity**

## Team Members and Their Responsibilities

### Team Member:

- **Alex Frear** – As the sole team member, I will fulfill all roles, including:
  - **Project Manager:** Oversee project planning, timeline, and deliverables.
  - **Business Analyst:** Gather and analyze requirements; create user stories.
  - **Developer/Designer:** Develop and design the website and database.
  - **Tester:** Ensure all functionalities meet the requirements and perform thorough testing.

## Team Coordination and Communication

- **Tools:** I will utilize Agile tools (such as Trello or GitHub Issues) to manage tasks and track progress.
- **Meetings:** Regular self-reviews will be scheduled throughout the project timeline to monitor progress and adjust plans as needed.
- **Documentation:** All decisions, updates, and communications will be documented within the project management tool and maintained in a central project repository.

## Full Description of the Software

The project will develop a website for a retail station that integrates a real-time database with accounting and inventory systems. Key features include:

- **Connectivity:** Support for LAN, Bluetooth, and peripheral devices (e.g., scan gun, scale).
- **User Interaction:** Interfaces for both customers (e.g., scanning loyalty cards, printing receipts) and attendants (access via handheld devices with a QWERTY keyboard and number pad).
- **Business Logic:** Functionality to handle coupon scanning with attendant assistance, manager overrides, and restricted purchases (alcohol, tobacco, cold medicine).
- **Database Integration:** Real-time connection with SAP and MySQL, plus the ability to upload daily specials and promotional pricing.
- **Performance:** Adherence to physical size constraints and rapid on-screen updates for a smooth user experience.

## Project Scope

- **Included:**
  - Development of a fully integrated website with real-time database connectivity.
  - Implementation of both front-end (GUI) and back-end (server and database) functionalities.
  - Incorporation of hardware connectivity features (LAN, Bluetooth, scan gun, scale).
  - Creation and management of Agile-based user stories through iterative development.
- **Excluded:**
  - Features beyond the essential functionality required for a working prototype.
  - Integration with external systems outside of the specified SAP and MySQL databases.

## Timeline (Weeks 2–8)

1. **Week 2 – Planning and Requirement Gathering:**
  - a. **Activities:** Finalize the team charter, develop initial user stories, and define project requirements.
  - b. **Deliverables:** Completed Team Charter and User Stories Document.
2. **Week 3 – Design Phase:**
  - a. **Activities:** Develop system architecture, create wireframes, and design mockups.
  - b. **Deliverables:** Design documentation and visual prototypes.
3. **Weeks 4–6 – Development Phase:**
  - a. **Activities:** Code the website, integrate the database, and implement key functionalities.
  - b. **Deliverables:** Functional website prototype with integrated hardware connectivity and real-time data updates.
4. **Week 7 – Testing and Refinement:**
  - a. **Activities:** Conduct comprehensive testing (unit, integration, and user testing), address bugs, and refine the user interface.
  - b. **Deliverables:** Testing reports and a refined application prototype.
5. **Week 8 – Final Submission:**
  - a. **Activities:** Finalize documentation, perform last-minute quality checks, and prepare the project for submission.
  - b. **Deliverables:** Complete project documentation, including the Team Charter, User Stories Document, and the working website prototype.

## Constraints

- **Time Constraints:** The project must be completed within the remaining 7 weeks of the class (Weeks 2–8), necessitating efficient time management.
- **Resource Constraints:** Limited resources as a solo team member; potential learning curves with integrating multiple technologies.

- **Technical Constraints:** Integration with specific hardware (e.g., scan gun, scale) and ensuring compatibility with both SAP and MySQL systems.

## Desired Goal

To develop a fully functional, user-friendly website that meets the client's needs by integrating real-time database connections with intuitive hardware interfaces and comprehensive user management. The project will demonstrate full stack development skills and adherence to Agile methodologies within a condensed timeline.

## Deliverables and Key Performance Indicators (KPIs)

### Deliverables:

- Team Charter Document (this document)
- User Stories Document (including client questions and detailed Agile user stories)
- Developed website prototype with integrated database and hardware interfaces
- Testing documentation and user acceptance test results

### KPIs:

- **Functionality:** Successful implementation of all specified features (connectivity, database integration, and user interfaces).
- **Performance:** The system meets performance criteria (e.g., on-screen updates within 15 seconds).
- **Usability:** An intuitive, accessible user interface (touch screen and wheelchair-accessible design).
- **Timeliness:** Milestones achieved according to the condensed 7-week timeline.

## Customer Description

This project simulates a real-world development engagement for educational purposes. There is no live client involved; instead, I am acting in the dual role of developer and client. Requirements are modeled on typical retail station needs for self-checkout systems.

### Client Profile (Simulated):

- **Business:** A retail station aiming to streamline customer transactions and inventory management.
- **Experience:** The simulated client has practical experience in retail operations and seeks an integrated solution for enhanced data processing.
- **Qualifications:** The simulated client is well-versed in retail system requirements and provides hypothetical feedback throughout the project.

- **Availability:** The simulated client is “available” for periodic check-ins, allowing adjustments to ensure alignment with operational needs and expectations.