Software System Design Project CO2060

Document Information

- **Project Title:** Merch4Change
- **Organization / Institution:** Department of Computer Engineering, University of Peradeniya
- **Prepared By (Team / Individual):** Antigravity - G13
- **Version:** 1.1
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Project Time-line

Phase 0: Project Initiation & Vision (Week 0)

Duration: 21 days

- Define product vision and objectives
- Identify stakeholders
- Define high-level system scope

Deliverables:

- Product Vision Statement
- Stakeholder List
- High-Level Scope Document

Phase 1: Product Backlog Creation (Week 1)

Duration: 7 days

- Identify epics and features
- Write user stories
- Define acceptance criteria
- Prioritize backlog

Deliverables:

- Product Backlog
- User Stories

Phase 2 - Sprinting and Developing

Sprint Cycle

Sprint Number: 1

Sprint Duration: 2 weeks

Sprint Planning:
- Finalizing Front-End designs and start implementing
- UI design
- Initialize front-end code

Sprint Execution:
- System design (UI)
- Implementation
- Unit testing
- Scrum meetings (3 Meetings per cycle)

Sprint Review:
- Demo increment (Figma workspace)
- Collect feedback (From scrum master)

Sprint Retrospective:
- Identify improvements

Sprint Cycle

Sprint Number: 2

Sprint Duration: 2 weeks

Sprint Planning:
- Finalizing Front-End Implementations
- Back-end logic Finalization

Sprint Execution:
- System design (Front-end and Back-end)
- Implementation
- Unit testing
- Scrum meetings (3 Meetings per cycle)

Sprint Review:
- Demo increment (Locally hosted UI)
- Collect feedback (From scrum master)

Sprint Retrospective:
- Identify improvements

Sprint Cycle

Sprint Number: 3

Sprint Duration: 2 weeks

Sprint Planning:
- Progressing Back-End Implementations
- Initializing Database Implementations
- ER & System Diagram finalization

Sprint Execution:
- System design (Back-end)
- Implementation
- Unit testing
- Scrum meetings (3 Meetings per cycle)

Sprint Review:
- Demo increment (Test back-end functionalities)
- Collect feedback (From scrum master)

Sprint Retrospective:
- Identify improvements

Sprint Cycle

Sprint Number: 4

Sprint Duration: 2 weeks

Sprint Planning:
- Finalizing Back-end Implementations
- Integrating Front-end and Back-end

Sprint Execution:
- System design (Front-end and Back-end integration (APIs))
- Implementation
- Unit testing
- Scrum meetings (3 Meetings per cycle)

Sprint Review:
- Demo increment (Locally hosted system check)
- Collect feedback (From scrum master)

Sprint Retrospective:
- Identify improvements

Sprint Cycle

Sprint Number: 5

Sprint Duration: 2 weeks

Sprint Planning:
- Finalizing the MVP and Bug fixing
- Test with users (external)

Sprint Execution:
- Analyzing and fixing issues in the testing period
- Implementation (Bug fixes)
- Unit testing (Let users use functions one by one for testing)
- Scrum meetings (3 Meetings per cycle)

Sprint Review:
- Demo increment (Bug fixes and identified functionality errors)
- Collect feedback (From users and scrum master)

Sprint Retrospective:
- Identify improvements

Phase 3 - Final Integration & Release of MVP

• System integration - Expected after 4th scrum cycle

• System and acceptance testing - During 5th scrum cycle

• Demo and MVP - 14th week (Milestone 2 Presentation)

Deliverables:
- Final Product Increment
- Test Reports
- Documentation