

P-16:
Networking Project Plan

March 5, 2025

Project Timeline

This timeline will cover the planning aspect of all tasks within LEADERBOARD branch. Each member is expected to contribute 3 × 45 minutes per week.

0.1 Planning and Design

- Create planning documents for NETWORKING branch
 - Outline tasks, assign responsibilities, and set rough completion dates.
 - **Deadline:** March 6, 2025
- Design use case diagrams
 - Create a draft, review, and finalize use case diagrams for matchmaking.
 - **Deadline:** March 6, 2025
- Design class structure diagrams
 - Create a general class structure diagram for matchmaking-related classes.
 - **Deadline:** March 6, 2025
- Create use case descriptions document
 - Identify and detail use cases for networking (e.g., client control, game session sync, etc.)
 - **Deadline:** March 6, 2025
- Review and submit documents for Iteration 1
 - Team review, proofread, and submit to D2L Dropbox.
 - **Deadline:** March 6, 2025

Milestones:

- team 3 : : iteration 1: March 7, 2025

Phase 1: Setup

Duration: March 8, 2025 - March 12, 2025

Goal: Establish rough skeleton code and finalize design for NETWORKING

Task List:

- Git Repository Setup:
 - Set up Git repository for NETWORKING branch.
 - **Start Date:** March 4, 2025
 - **End Date:** March 4, 2025
 - **Estimated Time:** 1 hour.
- Finalize class structure design:
 - Adjust class diagram based on feedback.
 - **Start Date:** March 4, 2025
 - **End Date:** March 5, 2025
 - **Estimated Time:** 3 hours.
- Stub networking logic:
 - Simulate client and server performance within a game session.

- **Start Date:** March 10,2025
- **End Date:** March 11, 2025
- **Estimated Time:** 3 hours.
- Plan GUI integration:
 - Create a sketch for the networking interface.
 - **Start Date:** March 11, 2025
 - **End Date:** March 12, 2025
 - **Estimated Time:** 3 hours.

Milestones:

- team 3 : : iteration 1: March 12, 2025

Phase 2: Core Development

Duration: March 13, 2025 - March 25, 2025

Goal: Implement core systems for NETWORKING.

Task List:

- Implement connection logic:
 - Develop logic to handle player connection and disconnection (e.g., ELO)
 - **Start Date:** March 13, 2025
 - **End Date:** March 16, 2025

Phase 3: Task Implementation

Duration: March 26, 2025 - April 1, 2025

Goal: Connect server to client within game sessions

Task List:

- Integration with networking:
 - Add a method to demonstrate online interface integration to host games.
 - **Start Date:** March 26, 2025
 - **End Date:** March 29, 2025
 - **Estimated Time:** 6 hours
- Player log-in and user profile view and creation
 - **Start Date:** March 27, 2025
 - **End Date:** march 31, 2025
 - **Estimated Time:** 6 hours
- Test integration:
 - Players should be able to view users' profiles/status/recent matches
 - **Start Date:** March 30, 2025
 - **End Date:** April 1, 2025
 - **Estimated Time:** 3 hours

Milestones:

- team 3 : : iteration 1: April 1, 2025

Phase 4: Testing

Duration: April 2, 2025 - April 8, 2025

Goal: Ensure there are no bugs.

Task List:

- Create unit tests to test client-server communication as well as game-state synchronization
 - **Start Date:** April 2, 2025
 - **End Date:** April 5, 2025
 - **Estimated Time:** 6 hours
- Test chat functionality
 - **Start Date:** April 3, 2025
 - **End Date:** April 6, 2025
 - **Estimated Time:** 4 hours
- Test general session management
 - **Start Date:** April 4, 2025
 - **End Date:** April 7, 2025
 - **Estimated Time:** 3 hours
- Full system test
 - **Start Date:** April 5, 2025
 - **End Date:** April 8, 2025
 - **Estimated Time:** 3 hours

Milestones:

- team 3 : : iteration 1: April 8, 2025

Phase 5: Review

- Update documentation
 - **Start Date:** April 9, 2025
 - **End Date:** April 9, 2025
 - **Estimated Time:** 2 hours
- Full code review
 - **Start Date:** April 9, 2025
 - **End Date:** April 10, 2025
 - **Estimated Time:** 3 hours
- Record video demonstration
 - **Start Date:** April 9, 2025
 - **End Date:** April 10, 2025
 - **Estimated Time:** 3 hours
- Submit documents

- **Start Date:** April 10, 2025
- **End Date:** April 11, 2025
- **Estimated Time:** 1 hour

Milestones:

- team 3 : : iteration 1: April 11, 2025