

GUI Implementation Project Plan

March 6, 2025

Project Timeline

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

0.1 Planning and Design

Create planning documents for GUI branch.

- Create an outline and rough dates for when tasks are estimated to be finished –
Deadline: March 6, 2025

Design use case diagrams

- Finalize the existing use case diagram with refinements based on team feedback.
- **Deadline:** March 7, 2025

Design class structure diagrams.

- Refine the existing class structure diagram for GUI components (OMGController, MainMenuWindow, GameWindow, UserProfileWindow).
- **Deadline:** March 7, 2025

Create use case descriptions document

- Identify and provide details for different GUI-related use cases including login, navigation through menus, game interaction, and profile viewing.
- **Deadline:** March 7, 2025

Review and submit documents for iteration 1:

- Team review, spell checking, format checking, proofread, then submit to D2L dropbox. – **Deadline:** March 7, 2025

Milestones:

team 6 : : iteration 1: March 7, 2025

0.2 Development and Implementation

Objective: Develop and implement the GUI system based on the class diagram, including OMGApplication, OMGController, MainMenuWindow, GameWindow, and UserProfileWindow components.

Duration: March 8, 2025 - April 11, 2025 (Post-iteration 1 to iteration 3 deadline)

Key Features:

- Create login interface with username and password fields
- Implement main menu with game selection panel and profile section
- Develop game window with game board and control panels
- Build user profile window with stats and achievements panels
- Integrate with leaderboard functionality
- Ensure proper navigation between all windows

The Development and Implementation will be divided into phases: Setup, Core Development, Integration, Testing, and Review. Tasks are assigned to balance workload among all team members.

Phase 1: Setup

Duration: March 8, 2025 - March 11, 2025

Goal: Establish skeleton code and finalize design for GUI components

Tasklist:

Git Repository Setup

- **Start Date:** March 8, 2025
- **End Date:** March 8, 2025
- **Estimated Time:** 1 hour

Finalize class structure design: Adjust class diagram based on feedback

- **Start Date:** March 8, 2025
- **End Date:** March 9, 2025
- **Estimated Time:** 4 hours

Create JavaFX project structure

- **Start Date:** March 9, 2025
- **End Date:** March 10, 2025
- **Estimated Time:** 3 hours

Design GUI mockups: Create visual designs for all windows

- **Start Date:** March 10, 2025
- **End Date:** March 11, 2025
- **Estimated Time:** 4 hours

Milestones:

Setup complete: March 11, 2025

Phase 2: Core Development

Duration: March 11, 2025 - March 22, 2025

Goal: Implement core GUI components

Tasklist:

Implement OMGApplication and OMGController classes

- **Start Date:** March 11, 2025
- **End Date:** March 14, 2025
- **Estimated Time:** 6 hours

Create login window with authentication functionality

- **Start Date:** March 14, 2025
- **End Date:** March 17, 2025
- **Estimated Time:** 8 hours

Implement MainMenuWindow with game selection and profile section

- **Start Date:** March 15, 2025
- **End Date:** March 18, 2025
- **Estimated Time:** 9 hours

Develop GameWindow with game board and control panel

- **Start Date:** March 18, 2025
- **End Date:** March 21, 2025
- **Estimated Time:** 10 hours

Build UserProfileWindow with stats and achievements panels

- **Start Date:** March 21, 2025
- **End Date:** March 22, 2025
- **Estimated Time:** 6 hours

Milestones:

GUI prototype: March 22, 2025

Phase 3: Integration

Duration: March 27, 2025 - April 1, 2025

Goal: Connect GUI components to other features and ensure proper navigation

Tasklist:

Integrate with leaderboard functionality: Connect ViewLeaderboard use case with GUI

- **Start Date:** March 27, 2025
- **End Date:** March 30, 2025
- **Estimated Time:** 7 hours

Implement navigation between windows: Ensure proper window transitions

- **Start Date:** March 28, 2025
- **End Date:** March 30, 2025
- **Estimated Time:** 6 hours

Connect game logic to GameWindow interface

- **Start Date:** March 29, 2025
- **End Date:** April 1, 2025
- **Estimated Time:** 5 hours

Test integration of all components

- **Start Date:** March 31, 2025
- **End Date:** April 1, 2025
- **Estimated Time:** 4 hours

Milestones:

Integrated GUI: April 1, 2025

Phase 4: Testing

Duration: April 2, 2025 - April 9, 2025

Goal: Ensure there are no bugs and the GUI functions properly

Tasklist:

Create unit tests for GUI components

- **Start Date:** April 2, 2025
- **End Date:** April 6, 2025
- **Estimated Time:** 7 hours

Test window transitions and navigation

- **Start Date:** April 4, 2025
- **End Date:** April 7, 2025
- **Estimated Time:** 5 hours

Test user interactions with all components

- **Start Date:** April 5, 2025
- **End Date:** April 8, 2025
- **Estimated Time:** 4 hours

Full system test with multiple users

- **Start Date:** April 6, 2025

- **End Date:** April 9, 2025
- **Estimated Time:** 4 hours

Milestones:

GUI tested: April 9, 2025

Phase 5: Review

Duration: April 9, 2025 - April 11, 2025

Goal: Finalize documentation and prepare for submission

Tasklist:

Update documentation with final GUI specifications

- **Start Date:** April 9, 2025
- **End Date:** April 10, 2025
- **Estimated Time:** 3 hours

Complete code review of all GUI components

- **Start Date:** April 9, 2025
- **End Date:** April 10, 2025
- **Estimated Time:** 4 hours

Record video demonstration of GUI functionality

- **Start Date:** April 9, 2025
- **End Date:** April 10, 2025
- **Estimated Time:** 3 hours

Submit final documents

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

Milestones:

Submission: April 11, 2025

Final Notes

Start coding on March 8, 2025, the earlier the better. Hold weekly meetings with other team leaders working on other features (especially the leaderboard team). Hold scrum meetings with your own team. Branch early and branch often, and commit frequently to GitLab.

Ensure that the GUI components align with the class diagram structure (OMGApplication, OMGController, MainMenuWindow, GameWindow, UserProfileWindow) and support all

use cases shown in the use case diagram (Login, Menu, ViewProfile, ViewLeaderboard, StartGame, etc.).