

Project Timeline

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

Planning and Design

- **Create planning documents for CHECKER branch**
 - Create an outline and rough dates for when tasks are estimated to be finished.
 - **Deadline:** March 6, 2025
- **Design use case diagrams**
 - Create draft then create final of the use case diagrams.
 - **Deadline:** March 6, 2025
- **Design class structure diagrams**
 - Create a general class structure diagram for classes in CHECKER.
 - **Deadline:** March 7, 2025
- **Create use case descriptions document**
 - Identify and provide details to different use cases.
 - **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 4: Iteration 1:** March 7, 2025
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Development and Implementation

- **Objective:** Develop and implement a playable and interactive Checkers game based on the famous board game.

- **Duration:** March 8, 2025 - April 10, 2025 (Post-Iteration 1 to Iteration 3 deadline)
- **Key Features:**
 - Two players take turns moving pieces
 - 8x8 game board to accurately simulate board game
 - Regular pieces move diagonally in one direction, kings can move diagonally in both directions
 - Pieces “jump” over opponents to capture them
 - Integrate with GUI and other systems of the app.

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 rough skeleton code and finalize design for CHECKER

Task List:

- **Git Repository Setup**
 - **Start Date:** March 8, 2025
 - **End Date:** March 8, 2025
 - **Estimated Time:** 1 hour
- **Finalize class structure design**
 - **Start Date:** March 9, 2025
 - **End Date:** March 10, 2025
 - **Estimated Time:** 3 hours
- **Plan GUI for CHECKER**
 - **Start Date:** March 10, 2025
 - **End Date:** March 11, 2025
 - **Estimated Time:** 3 hours

Milestones:

- **Setup complete:** March 12, 2025

Phase 2: Core Development

- **Duration:** March 12, 2025 - March 23, 2025
- **Goal:** Implement core gameplay mechanics of CHECKER

Task List:

- **Implement game board to accurately simulate board game**
 - **Start Date:** March 12, 2025
 - **End Date:** March 15, 2025
 - **Estimated Time:** 5 hours
- **Implement core gameplay mechanics (moving pieces), piece -> king, etc**
 - **Start Date:** March 16, 2025
 - **End Date:** March 19, 2025
 - **Estimated Time:** 9 hours
- **Implement win/loss logic**
 - **Start Date:** March 20, 2025
 - **End Date:** March 22, 2025
 - **Estimated Time:** 3 hours
- **Flexible timeline to figure out any remaining issues / catch up on incomplete tasks**
 - **Start Date:** March 22, 2025
 - **End Date:** March 23, 2025
 - **Estimated Time:** To be further discussed with team members

Milestones:

- **Core Development Complete:** March 23, 2025

Phase 3: Integration

- **Duration:** March 24, 2025 - April 1 2025

- **Goal:** Integrate the Checkers game with main GUI

Task List:

- **Integrate Checkers game with GameWindows**
 - **Start Date:** March 24, 2025
 - **End Date:** March 26, 2025
 - **Estimated Time:** 3 hours
- **Verification of UI integration**
 - **Start Date:** March 27, 2025
 - **End Date:** March 28, 2025
 - **Estimated Time:** 3 hours
- **Final touches (bug fixes, improvements, refinements, etc)**
 - **Start Date:** March 29, 2025
 - **End Date:** March 30, 2025
 - **Estimated Time:** 3 hours
- **Flexible timeline to figure out any remaining issues / catch up on incomplete tasks**
 - **Start Date:** March 31, 2025
 - **End Date:** April 1, 2025
 - **Estimated Time:** To be further discussed with team members

Milestones:

- **GUI Integration Complete:** April 1, 2025

Phase 4: Testing

- **Duration:** April 2, 2025 - April 6, 2025
- **Goal:** Thorough testing of Checkers gameplay logic & GUI integration

Task List:

- **Create unit tests for CheckersBoard**
 - **Start Date:** April 2, 2025

- **End Date:** April 3, 2025
 - **Estimated Time:** 4 hours
- **Create unit tests for CheckersGame**
 - **Start Date:** April 4, 2025
 - **End Date:** April 5, 2025
 - **Estimated Time:** 4 hours
- **GUI integration tests**
 - **Start Date:** April 5, 2025
 - **End Date:** April 6, 2025
 - **Estimated Time:** 3 hours

Milestones:

- **Unit Testing Complete:** April 7, 2025

Phase 5: Review

- **Duration:** April 8, 2025 - April 11, 2025
- **Goal:** Finalize all code, fixes, and prepare for final submission

Task List:

- **Full Code Review**
 - **Start Date:** April 8, 2025
 - **End Date:** April 9, 2025
 - **Estimated Time:** 5 hours
- **Documentation Update + Final Checks**
 - **Start Date:** April 9, 2025
 - **End Date:** April 10, 2025
 - **Estimated Time:** 3 hours
- **Record Video Demonstration for Submission**
 - **Start Date:** April 10, 2025
 - **End Date:** April 11, 2025

- **Estimated Time:** 3 hours
- **Submission!**
 - **Start Date:** April 11, 2025

Milestones:

- **Review and Submission:** April 11, 2025
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Final Notes

Weekly meetings and frequent communication will be best. This timeline is flexible because things change over time, but we will aim to stick to this.