# Leaderboard and Matchmaking Team

## **Timeline**

#### **High priority**

- Create leaderboard class and methods
  - Implement logic for retrieval of player rankings
  - o Integration of leaderboard with Authentication and Profile
- Create method to sort top players
  - Implement sorting logic
    - Method to sort by rating points
    - Method to sort by win loss ratio
    - Method to sort by number of wins
- Integration of leaderboard with GUI
  - Leaderboard GUI creation
  - Leaderboard GUI menu options (e.g. filtering, etc.)
- Integration of leaderboard with Networking
  - Storing data in database
  - Fetching data in database
- Implement match result processing (e.g. Win/loss updates, rating updates, etc.)
- Allow player interaction through GUI
- Create matchmaking class and methods
  - Create queue data structure
  - Implement sorting algorithm on the queue data structure for matching opponents
  - o Integration of Matchmaking class with Player (Display opponent information)
  - Deliver players into the correct game lobby
- Implement Timeout method and integration with GUI (Penalty for leaving in-progress games)

#### **Medium priority**

- Create method retrieve searched player
  - Handle cases where player is not found
- Create method to rank player's friend list
- Add sorting order toggling functionality

- o Integrate with GUI
- o Integrate with Networking
- Unit testing

## **Low priority**

- Display search results dynamically for leaderboard player search
- Ensure sorting efficiency of sorting logic
  - Optimize method to sort by rating points
  - Optimize method to sort by win loss ratio
  - Optimize method to sort by number of wins
- Integrate network manager with leave match method

# Deadline logbook

## **Project deadlines**

Iteration 1: March 7th at 23:59

Iteration 2: March 21st at 23:59

Iteration 3: April 11<sup>th</sup> at 23:59

## **Project group deadlines**

March 5<sup>th</sup> at 15:00: Complete diagrams corresponding to your development role and merge to main.

March 7<sup>th</sup> at 12:00: Review/critique parts of other teams.

March 7<sup>th</sup> at 21:00: Project iteration 1 submission. Leaves a 3 hour buffer in case something goes wrong.

## **Team deadlines**

March 2<sup>nd</sup>: Complete use case descriptions

March 5<sup>th</sup> at 15:00: Complete use case diagrams and/or additional diagrams

March 5<sup>th</sup> at 16:30: Complete class structure diagrams