# Leaderboard and Matchmaking Team

# Timeline

**High priority**

* Create leaderboard class and methods
  + Implement logic for retrieval of player rankings
  + 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
  + 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
  + Integrate with GUI
  + 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**](https://d2l.ucalgary.ca/d2l/le/content/649707/viewContent/6914688/View) **deadlines**

Iteration 1: March 7th at 23:59

Iteration 2: March 21st at 23:59

Iteration 3: April 11th at 23:59

**Project group deadlines**

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

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

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

**Team deadlines**

March 2nd: Complete use case descriptions

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

March 5th at 16:30: Complete class structure diagrams