**Admiral Radar: Space Expedition**

Utkarsh Agarwal, Ramsey Ali, Sam Buck, Panagiotis Kostouros, Delun Shi

**Problem Statement**

Board games are a lost art, and part of a treasured history. By adapting the popular board game *Captain Sonar*, we attempt to digitize the game and open it to a wider audience through online play, more intuitive gameplay, and additional functionalities not possible on a physical board. *Admiral Radar: Space Expedition* allows players to enjoy the gameplay mechanics originally found in *Captain Sonar* but without the need for players to be in the same geographic location. Some game features are simply not even possible in physical board games such as team-only communication, persistent player statistics, or single player gameplay, demonstrating the need for board games such as *Captain Sonar* to be brought into the digital space.

**Project Objectives**

* Allow players to play the board game *Admiral Radar: Space Expedition* on their desktop regardless of location.
* Provide players with user accounts that keep track of player information across game sessions.
* Provide players with a means to communicate with team members in-game.
* Create and manage a database that stores game state data throughout the entire game session.
* Create and manage a database to store user login info and any data pertaining to the user.
* *(time permitting)* Provide a web-application of *Admiral Radar: Space Expedition* with a similar interface to its desktop counterpart.
* *(time permitting)* Provide a computer A.I. to allow single player gameplay.

**Stakeholders**

**Users:** Anyone interested in playing an online board game of this sub-genre

**Developers:** Utkarsh Agarwal, Ramsey Ali, Sam Buck, Panagiotis Kostouros, Delun Shi

**Project Manager:** Sam Buck

**Project Owner:** Utkarsh Agarwal, Ramsey Ali, Sam Buck, Panagiotis Kostouros, Delun Shi

**Deliverables**

* A Java server application for coordinating gameplay data between clients, serving as the main point of communication between clients and the database, to be hosted by a course-provided virtual machine.
* A Java desktop client for players to connect to the server and play the game.
  + Swing toolkit used for the board game’s GUI
* A NOSQL database with multiple schemas, to store both user and game data.
* *(time permitting)* Web-application modeled off the desktop client (incl. GUI), allowing for mobile play or on any non-standard PC with browser access.