

Milestone 0: Charter

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1 Meetings

The following are our scheduled weekly meeting times:

Monday - 8:20 pm

Wednesday - 8:20 pm

Friday - 5:00 pm

Saturday - 6:00 pm

Sunday - 6:00 pm

2 Proposal

We plan to make a multiplayer (distributed) Scrabble game that can be played with either human or computer players.

Key features:

- AI
- UI (possibly graphical)
- multiplayer (distributed)
- English (not OCaml) dictionary manipulation using a Trie

We will make a Scrabble game which allows users to play Scrabble, but with added features such as detecting if words are valid or not. These features will be implemented by using a prefix tree. We also plan to implement an AI to play words that maximize score according to tile/word bonuses and point values of letters. The AI will also have different levels of difficulty. One way to implement this might be choosing suboptimal words for lower difficulty levels.

For the server-client interface, we will leverage the OCaml libraries **cohttp** and **sqlite3** to persist data across multiple players and multiple instances of games.

For the user interface, users should be able to view their current available letters as well as the current board and should be able to perform moves. We plan on implementing a text interface to start with, and changing it to a graphical interface if time permits.