

SOFT8023 - Assignment 2 - Option A

Due: 7 Dec 2022 23:59

Worth: 30%

With Option A, you will continue development from assignment 1's Wheel of Fortune single player game.

Additional Functionality (16%)

Make this a multi-player game in one of several ways:

1. You could make it a 2-player co-operative experience. E.g. 1 player creates a game and invites a second player (e.g. shares an auto-generated id with their friend - assume the code is shared via text, whatsapp, etc.; you don't have to worry about how player 2 gets the code). Keep a list of the letters each player contributes and keep track of the scores (e.g. points per letter and points per guess, maybe deductions for incorrect guesses). This app would still be single game per server, so you don't necessarily need a game registry, etc.
2. Very similar to above, except you make it competitive against the clock. The two players are competing and the first player to guess the phrase gets the score for that round. The player with the highest score at the end of all the rounds wins.
3. Alternatively, just host multiple single-player games at the same time, similar to the darts app and the dart game registry. However, given that it is similar to the Darts app, you must add the following additional functionality: a leaderboard for the highest number of phrase solves of the day (which can be printed on screen using a command of your choice). E.g. John is top of the leaderboard with 10 phrases solved, followed by Marita with 8 solves, etc.
4. And final option: something else you come up with. If you have another idea for a multi-player option that you would like to develop, let me know.

RabbitMQ (3%)

From the server, send some stats to a message queue.

Sockets (8%)

Simple socket application. Write a server that consumes the stats messages from the queue when a client connects and requests latest stats. Maybe store cumulative stats in a data structure within the server's memory and provide full latest stats to the client.

Docker (3%)

Select 1 component to put into a Docker container, e.g. Wheel of Fortune server or socket server.

Note:

there will be a form to fill in to include screenshots, etc.