

Deign Breakdown

Login

The scope of the start game is to enable the user to start the program and login as a player so as to keep track of your scores. The user has the option of playing as a guest; without logging in but the game would not keep track of the user's progress. The start of the game gives the user a welcome and checks for updates by the developers and it is upon the user to accept or decline the updates. When logging in to keep score, the user may have to input their ID: either name or email, their password so as to have an account connected to their scores. In the login as well the user is allowed to view the list of rules in the game so as to be able to know what to do when they start the game.

Player

Game does not start until at least 2 people have been selected. The players can access the game as long as they are logged on to the same server, in our case; localhost: 3000. This helps enable the multiplayer functionality that the game runs on. The game requires 2-4 players to work. The game canvas will require their Player ID to identify them as well as keep track of their score. The score will be stored in the leaderboard interface.

Game

The scope of the game class includes all requirements that take place during the process of "playing the game". This includes but is not limited to; tile deck, shuffling, dealing, melds, and keeping score. When the game ends it should be saved and the leaderboard should be updated and at the end the game loops back to the start menu and the user should have the option of redoing all of this. The game interface shows Start, Meld, Draw, and Shuffle and lets you choose the amount of players in the game. Once the game starts, you get to see the Player ID, the tiles in their hand and the total points. The functions included in the Rummy-O Game include shuffling the tiles at the beginning, and this is accomplished using the Random object in JavaScript so that the players get a variety of tile. Thereafter the starter player is selected by checking the player with the lowest tiles, then the play rotates clockwise. Thereafter, the other players select 14 tiles and the players can't see the opponents' tiles. The player ensure their melds add up to 25 in one or more sets. The players then work hard to eliminate their tiles on hand but if they can't play, they get to pick a tile. The melds can be reordered so that the player gets to play his/her cards as a different set. Jokers can be replaced by a different tile that can fit well in its position and the joker gets to be reused in a different set.

Tiles

The tiles will be categorized into 4 different sets; 13 tiles per color, and there are four colors with an addition of 2 jokers, that can be used to complete sets on the table - a total of 54 tiles. When tiles are distributed to players, the tiles in their possession are grouped as a hand and can be played when their turn reaches. Tiles can be dealt, shuffled as well as be made into melds. On the table, the players can make melds and also replace melds. Before the game starts, the player with the minimum number of

points from the highest valued tiles becomes the starting player. Players can be eliminated mid game and winners can be declared once a player clears their hand and makes all the melds necessary.

Server

The players connect on the local host server: 3000 to access the canvas. The server allows the multiplayer feature to run on the game. The score gets updated on the server then pushed to the leaderboard at the end of the game.

Leaderboard

The wins and losses are recorded on the leaderboard with the player ID. Their score from each game is updated on the leaderboard thereafter and they can see their rankings compared to other players.