

-OH

Description

(-OH) Our group name originated from the hydroxyl function group (-OH); the group that alcohol belongs to. We aim to create an online version of the Ring of Fire Game, which is a drinking game popular among university students in the UK, US, and Australia. Other names include King's Cups and Circle of Death.

Motivation

The motivation of our project originated from how we have first met; nights out at Rubix. We thought it would be a great idea to merge our recently acquired MATLAB skills to our everyday life, debunking the myth that coding/MATLAB is boring. Since we are both new to MATLAB, we believe that this project can help expand our coding skills whilst we can have fun from it. We include several features such as the Graphical User Interface (GUI) to make it more engaging for users.

Game Set Up

Originally; Two equipment are required; a card deck and a cup. With -OH, we replace the card deck, so all you need is a cup and some alcohol!

Original Game rules:

1. First to set up the game, clear off a table and set a cup in the middle with the deck of cards placed around the cup in a circle.
2. Now get a group of friends to gather around the table, each person having a cup/bottle of alcohol to themselves.
3. Before you start the game, you must know what each card stands for:
 - A - Waterfall – Everyone must keep drinking until the person who picked the card stops. So who knows how long you will be going for!
 - 2 - is Choose – You can choose someone to drink.
 - 3 - is Me – You must drink.
 - 4 - All girls drink.
 - 5 - Thumb Master- When you put your thumb on the table everyone must follow and whomever is last must drink. You are the thumb master until someone else picks a five.
 - 6 - All guys drink.
 - 7 - is Heaven – Point your finger in the sky, whoever is last must drink.
 - 8 - is Mate – Choose someone to drink with you.
 - 9 - Rhyme – Pick a word such as dog and the person next to you must rhyme with dog, like log, and it goes to the next person and the next, in a circle, until someone messes up and he or she will have to drink.
 - 10 – Categories - Pick a category such as football and you go in a circle and everyone has to say a word that fits with football such as: touchdown, field goal, USC. Whoever messes up, drinks.
 - Jack - Make a Rule – You can make up any rule that everyone must follow, such as you

can only drink with your right hand. Everyone (including you) must follow this rule for the whole entire game and if you disobey you must drink.

Queen - Questions – Go around in a circle and you need to keep asking questions to each other. Doesn't matter what the question is, as long as it's a question. Whoever messes up and does not say a question, drinks.

King - Pour!- You must pour a little of your drink into the cup that is in the middle of the table. Whomever picks up the LAST king must drink the whole cup, which could be filled with different drinks, so who knows how bad it could taste!

4. Now that you know the rules. One person starts off by picking up a card, and whatever the card may be, follow the rule.

Reference: <http://www.ringoffirerules.com/>

To make our game more interesting, we decided to add two joker cards into the deck. If a joker is drawn, the player needs to play our simple game called "Guess the Color Game" where the player needs to guess whether the next card's color is red or black. If he guesses right, everyone else besides him must drink. Otherwise, the player must drink.

If the player guesses the color right, he can choose if he wants to go for another round. If he does and guesses right again, everybody else must drink 2 glasses. If he guesses wrong, he must drink 2 glasses and so on.

Methodology

Coming up with the idea is fun and challenging. Our ideas were everywhere from makeup and skincare optimizer to snake game and gold miner game. Inspired by how the Football Fantasy Optimizer came up with an idea that each team member is passionate about, we try to find a common ground between us two. In the end, we came up with the Ring of Fire Game, because we recall back to our first meeting; a party where the Ring of Fire Game was played.

The second step is learning the basic of MATLAB. Before this term begins, neither of us had experienced any coding ever before. We had no idea how MATLAB works as we had never heard of it. We decided to meet up once a week to spend time to discuss about this project and the weekly assignment which greatly helped us improve our skills. After playing around with MATLAB for a while, we have found the GUI features very interesting and presentable. With the video links sent by our professor, we can explore certain features of GUI which have become very useful in this project.

The next step is to find our card images and get started with the coding!

Firstly, with the help of MATLAB community, we were able write a code where random images (in this case; cards) appear once a button is pressed. However, with that code, we will not be able to link each card with a popup message. Therefore, we need to start over again.

During the process of writing the coding, we have come up with another idea of "Guess the Color Game" to make our game even more interesting!

Once the code is done, we came up with another problem. Since we met up and did all the code on one person's laptop (MacBook), we realized that it will not work on a Window software. We freaked out at first but realized it is just the difference in how paths are written on a window and a mac. As suggested by the lecturer for better communications and a clearer picture of how our project was progressing, we registered with the to-do list app Trello. However, we didn't use it as often since the two of us found it manageable to just meet up and finish everything on time.

Main Challenges/Issues

One of the main challenges is starting and getting to know MATLAB. Both of us were not just new to MATLAB, but we both had never done any coding before in our life. With the help of videos tutorials on Surreylearn and YouTube, we slowly acquired some basic coding skills. It is the same case with GitHub, we both started from zero knowledge.

To further make the game interesting, we made use of a toggle button in GUI and added a song (the link is <https://www.youtube.com/watch?v=lxszlJppRQI>) to play in the background. However, we could not successfully stop the mp3 file from automatically repeating itself over and over again. Instead we had to see how many seconds the song lasts to put it in our code to make it pause; it'd be inconvenient if we had many songs. Anyway, we have achieved the same result in the end.

How to run the code

Check README.md file.

Results

We have successfully created a simple Ring of Fire game with an added feature; "Guess the Color Game". This was not how we first expected our project to be, but over several discussion and revisions, we finally completed our project.

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