

Assignment 2 – Card Game in Python

Approach for a solution:

Firstly, I played the game and then made a draft of game on notebook which contained number of players, cards, characteristics, flow of the game, outdated deck, spells and etc. By thinking rough structure about the game, I jumped on coding part. Firstly, I created game class and made players and cards as object of game class. Then, I added characteristics to all the card objects. I use list for putting all cards together, but I was not able to compare characteristics of cards with each other. It took me long time to get solution for this approach, so I thought to drop this way and start thinking new way to solve it. So, I again started writing new code from the beginning where I made game as a class and players as object of those class. This time I use dictionary for cards and their characteristics are stored in it. This code is working without spell. I was unable to put spell logic in this code because it was not working. The way I tried to put in some spell conditions in code were throwing error, so I cut that logic and my code runs without spell.

Pseudocode:

Step 1: Created class CardGame.

Step 2: Define Player1 and Player2 object of class CardGame.

Step 3: Define 4 cards named as King, Queen, Joker, Ace as dictionary and use 4 characteristics which are Powerful, Beautiful, Joyful, Trump as value with different strength.

Step 4: Created Card as list where put dictionary values.

Step 5: Randomly shuffled the cards and equally divided between players. For this imported random library.

Step 6: Rolled dice till get different values for both the players and whoever gets more number will start the game.

Step 7: Initially, count of round winning kept as 0 for both the players. Then start loop and run the game in a loop. Ask for Players input to challenge on another player against strength and whoever is having higher strength, will win that round of game and gets chance to play another round first. The winning count increases with every round.

Step 8: After playing each set, cards are stored in outdated deck and card game ends here.

GitHub Link:

<https://github.com/shivangigujar23/Big-Data-Programming/blob/master/CardGame.py>

Referred links –

<https://www.tutorialspoint.com/python/>

https://www.w3schools.com/python/python_while_loops.asp

<https://stackoverflow.com/questions/21122540/input-error-nameerror-name-is-not-defined>

<https://www.quora.com/How-can-I-resolve-an-attribute-error-in-Python>

<https://stackoverflow.com/questions/8696322/why-does-this-attributeerror-in-python-occur>

<https://www.pythonforbeginners.com/dictionary/how-to-use-dictionaries-in-python>