



Card Game In Python: The Black Jack



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ABSTRACT

In this project we aim to working towards building a game where one can play games like Black Jack and enjoy with family.. Presently we have created the game with the opponent as the computer but plan on turning it into a multiplayer game. We have used the Python language to create the project and studied algorithms of the game to implement in the game. recently advancements and interests in smart phones and card games has hiked. Presently a lot of games such as 'Teen Patti', 'Rummy', etc. are played by millions of people online. The problem about this is that they offer only games which are mostly played by gamblers and are not fun for the public.

INTRODUCTION

Online Gaming has boomed a lot in the recent scenario, often when you look around, most people are on their phones playing games to distract their minds and rather use it to chase the high that comes with the game as you win. The games today are based on psychology of humans and how to get them to stay for a longer time then they may want to. The consequences of this are seen in real life, even kids today are engrossed in their phones cutting ties with the human world, forgetting the touch of grass.

METHODOLOGY

1.We used the language Python and will explain the classes and functions made to create the project.

2.Using 'random' to shuffle the deck of cards, in order to not have it ordered and play like a true game.

3.Defining suits, ranks and values. As they will remain the same throughout, the dictionaries are used in the whole program and are a major part of the Python language.

4.The class Card is used to creating and accessing single cards. The cards are initialized and displayed in a format.

5.The class Deck is used to create a deck of 52 cards, since the size and contents of deck remain same always, we don't need parameters to initialize it, we also create different definitions to complete different tasks, such as `__str__` is used to display the deck, `shuffle` is used for shuffling the deck, similarly the `deal` is used to give a card to the player and remove it from the deck present with the player.

6.The class Hand is used to check our cards and whether we will be winning and what's going to happen in the game. The comments also explain the works of the class. Similarly, the class Chips is used calculate the chips we may have or we lose or we win.

RESULTS AND OUTPUTS

1.The Opening Message

```
CA:\Program Files\WindowsApps\PythonSoftwareFoundation.Python.3.10_3.10.1264.0_x64_qbz5n2kfra8p0\python3.10.exe
Welcome to BlackJack! Get as close to 21 as you can without going over!
Dealer hits until she reaches 17. Aces count as 1 or 11.
How many chips would you like to bet? 20
```

2.The First Dealt Hand

```
Dealer's Hand:
(card hidden)
#5
Five of Diamonds
Player's Hand:
#10
Ten of Clubs
Eight of Spades
Would you like to Hit or Stand? Enter 'h' or 's'
Player stands, Dealer is playing.
```

3.The cards dealt after standing

```
Dealer's Hand:
(card hidden)
#5
Five of Diamonds
Player's Hand:
#10
Ten of Clubs
Eight of Spades
```

4.The dealer wins and we lose 20 chips, the updated number of chips is now 80 and we are asked whether we would like to play dinner.

```
Player's Hand:
#10
Ten of Clubs
Eight of Spades
Player's Hand = 18
Dealer wins!
Player's winnings stand at 80
Would you like to play another hand? Enter 'y' or 'n'
```

5.The scenario where the player keeps hitting and busts

```
Ace of Spades
#4
Four of Spades
#8
Eight of Diamonds
Player busts!
```

CONCLUSION AND FUTURE WORK

Black Jack can be played online and create a general interest among people, the game can be created using Python and even different features can be added.

The future work includes us using Graphic User Interface to create the game more engaging and adding different games to create a more Casino like feel where people can play different games if they are bored by one, with the comfort of their home, they will be available to play games and gamble without using real money.

REFERENCES

<https://www.w3schools.com/>

<https://stackoverflow.com/>

<https://www.tutorialspoint.com/index.htm>

<https://www.javatpoint.com/>