INT-108- PYTHON PROGRAMMING

PYTHON
PROJECT REPORT
on
ROCK PAPER SCISSORS GAME

SUBMITTED TO: Ms. Ankita Wadhawan

SUBMITTED BY:

- Allen John Kochumury
  (Roll no:38 - 12223115 - KOC-47)
- Vasundhra Pathak
  (Roll no: 61 - 12223876 – KOC47)
- Kiran Choudhary
  (Roll no: 14 - 12223380 - KOC47)

CONCEPT USED:

- For Loop: The repeation to the number of the game to the number of times the user enters as an Input is done by the for loop.

- If –elif-else Statement: The set of conditions required for the proper gameplay is implemented with the help of the if-elif- else Statement.

- Random Module: The imported random module is used for the working of the the computer's game against the playing user.

- Input Statement: The Input statement helps user to give instruction to the computer for an enhanced immersive gameplay experience.

- Print Statement: The game instructions and current gameplay updates are provided with the help of the print statement.

ABOUT PROJECT

Rock, Paper Scissors Game

Objective:

To create an interactive Random generated Python-based Rock, paper scissors game with text interface.

Description:

The project is a python-based code capable to replicate the classic game: "Rock Paper Scissors". Which is a nostalgic game played by all during childhood with friends. This version of the game is a single player random generator code, prepared by using the python library (Random). This game version also gives the user to select the number of times the player wants to play against the computer..

Code used for the project:

```
import random

a = int(input("Enter Number of Rounds: "))
b = ["Rock","Paper","Scissors"]
d = random.choice(b)
p = input("Enter \"R\" for rules of the game or Press any other Key to skip: ")
x = 0
y = 0
if p.upper() == "R":
print("")
print("User can Select between \"Rock\", \"Paper\", \"Scissors\"")
print("The CPU will randomly generate \"Rock\", \"Paper\", \"Scissors\" to counter the user")
print("If User Wins against CPU according to hierarchy below ,User Wins, Else CPU wins")
print("Rock wins against Scissors; Paper wins against Rock; and Scissors wins against Paper")
print("")
else:
pass
for i in range(0,a):
d = random.choice(b)
```

```python
c = input("Rock, Paper or Scissors: ")
print("CPU : {0}".format(d))
if c.title() == d:
print("Tie")
print("")
elif c.title() == "Rock" and d == "Scissors":
# USER VICTORY
print("You win! Rock smashes Scissors")
x = x + 1
print("")
elif c.title() == "Scissors" and d == "Paper":
print("You win! Scissors cut Paper")
x = x + 1
print("")
elif c.title() == "Paper" and d == "Rock":
print("You win! Paper covers Rock")
x = x + 1
print("")
# CPU VICTORY
elif d == "Rock" and c.title() == "Scissors":
print("You lose... Rock smashes Scissors")
y = y + 1
print("")
elif d == "Scissors" and c.title() == "Paper":
print("You lose... Scissors cuts Paper")
y = y + 1
print("")
elif d == "Paper" and c.title() == "Rock":
print("You lose... Paper covers Rock")
y = y + 1
print("")
else:
print("Invalid Input, Game Ends")
break

print("")
print("The final Score: ")
print("CPU: ",y)
print("User: ",x)
if y > x:
print("CPU wins, Better luck next time")
elif x == y:
print("It was a Tie")
else:
print("Congratulations!, You won")
```

Result:

```
Enter Number of Rounds: 6
Enter "R" for rules of the game or Press any other Key to skip: R

User can Select between "Rock", "Paper", "Scissors"
The CPU will randomly generate "Rock", "Paper", "Scissors" to counter the user
If User Wins against CPU according to hierarchy below ,User Wins, Else CPU wins
Rock wins against Scissors; Paper wins against Rock; and Scissors wins against Paper

Rock, Paper or Scissors: rock
CPU : Rock
Tie

Rock, Paper or Scissors: paper
CPU : Paper
Tie

Rock, Paper or Scissors: paper
CPU : Rock
You win! Paper covers Rock

Rock, Paper or Scissors: paper
CPU : Paper
Tie

Rock, Paper or Scissors: Scissors
CPU : Rock
You lose... Rock smashes Scissors

Rock, Paper or Scissors: Scissors
CPU : Rock
You lose... Rock smashes Scissors


The final Score:
CPU:  2
User:  1
CPU wins, Better luck next time
```