College of Computer and Cyber Scinses

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Project Report

**Rock, Paper, Scissors game**

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**Hello, we will present and explain our program which is a rock,paper,scissors game.**

**So here is the program code:**

**from random import randint**

**#create a list of play options**

**t = ["Rock", "Paper", "Scissors"]**

**#assign a random play to the computer**

**computer = t[randint(0,2)]**

**#set player to False**

**player = False**

**while player == False:**

**#set player to True**

**player = input("Rock, Paper, Scissors?")**

**if player == computer:**

**print("Tie!")**

**elif player == "Rock":**

**if computer == "Paper":**

**print("You lose!", computer, "covers", player)**

**else:**

**print("You win!", player, "smashes", computer)**

**elif player == "Paper":**

**if computer == "Scissors":**

**print("You lose!", computer, "cut", player)**

**else:**

**print("You win!", player, "covers", computer)**

**elif player == "Scissors":**

**if computer == "Rock":**

**print("You lose...", computer, "smashes", player)**

**else:**

**print("You win!", player, "cut", computer)**

**else:**

**print("That's not a valid play. Check your spelling!")**

**#player was set to True, but we want it to be False so the loop continues**

**player = False**

**computer = t[randint(0,2)]**

First, we import randint  from the random module. This is how our computer opponent will play, then then we create a list of play options, There are three possible plays you and the computer can make on each turn, “Rock”, “Paper” and “Scissors”.

Next we setup our players, the computer and you, then we assign a random play to the computer using our list, t, and the randint function.

Unlike playing RPS with friends in meatspace, the computer has made its play and is waiting for you to take your turn. Also unlike playing RPS with friends in meatspace, the computer isn’t go to cheat and change its play after you make yours. We set you, the player, to False because once the while loop starts, the computer will patiently wait for you to make a play. As soon as you take your turn, your status changes from False to True because any value assigned to the variable player makes player True. We used the input() function to pass the new value to the variable player. Your input will determine which statement is triggered below.

We used nested if to check every possible outcome of the game and return a message stating the winner, a tie, or an error.

We used else at the end to catch anything that isn’t “Rock”, “Paper” or “Scissors”. Finally we reset the player value to False to restart the while loop.