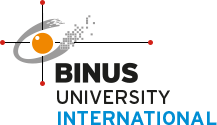
Odd Semester (2023)



**BINUS UNIVERSITY**

**BINUS INTERNATIONAL**

**Final Project Python**

**(Individual Work)**

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| **Student Information**: **Surname** | | | | | **Given Names**    **Rayhan** | | **Student ID Number**  **2301891683** | |  |
| 1. | | **Ali** |  | |  |
|  |  |  |
| **Course Code** | **: COMP6502** |  |  | | **Course Name** | | **: Introduction to Programming** | |  |
| **Class** | **: L1AC** |  |  | | **Name of Lecturer(s)** | | **:Ida Bagus Kerthyayana Manuaba** | |  |
|  |  |  |  | |  | |  | |  |
| **Major** | **: CS** |  |  | |  | |  | |  |
| **Title of Assignment** | : Rock, Paper, Scissors, Lizard, Spock. | |  |  | |  | |  | |
| **Type of Assignment**    **Submission Pattern** | **: Final Project** |  |  | |  | |  | |  |
| **Due Date** | **: 17-01-20** |  |  | | **Submission Date** | | **: 14-01-20** | |  |

The Final Project should meet the below requirements.

1. Use of Primitive Data
2. Use of Instance variables and objects
3. Use of Imported Modules, packages and functions
4. Use of Costum-built classes and methods
5. Detailed Code Commenting

**1. Project Specification**

**The function of this program:**

When People Want to Decide Something or Maybe Spending Time they probably play Rock Paper & Scissors but a normal rock paper & scissors game most likely end up in a tie by 75%-80% chance. The purpose of this program is to avoid Tie in Rock Paper scissors because normal Rock, Paper & Scissors game most likely end up in a Tie. by adding two more options in the game it will reduce the probability of drawing but still keeping the balance of a normal rock paper scissors game. I’m making this program by importing randint from random modules, to make the computer able to randomize the option.

**2.Solution Design**

Start

Class Name

Input Player Name & NPC Name

Input Your

Answer

“You Win”

“You Lose”

**Win Lose**

**Draw**

“It’s a Draw”

Output Print “Too Bad, NPC Win the Game”

Output Print “Congratulations, Player Win the Game”

END

**3.How it Works**

from random import randint  
  
class Name:  
 User = input('Enter Your Name : ')  
 user\_player = User  
 Comp = input('Enter the Name NPC : ')  
 comp\_npc = Comp  
  
 def \_\_str\_\_(self):  
 return pemain

first I import randint using random module , and then I make a class so the user can input their name and the computer name.

options = ["Rock", "Paper", "Scissors", "Lizard", "Spock"]  
player = False  
score = 0  
score\_1 = 0  
games\_played = 0  
NPC = options[randint(0, 4)]

and then I add the options : rock paper scissors lizard and spock for the player to choose and the npc to choose

and then I set the player to false ( but I got corrected by Sir Bagus because using True is better because I don’t have to set the player to True in the next code )

after that I put the score for the player win counter and score\_1 for the NPC win counter also the games\_played to count how many games the player already played, and then I use randint to make the npc can choose a random number between 0 – 4 ( 0 as in rock and 4 as in spock ).

while player == False:  
 if score == 5:  
 print("Congratulations" + " " + Name.user\_player + " You win the game!" )  
 player = True  
 break  
 elif score\_1 == 5:  
 print("Too Bad"+Name.comp\_npc+ " win the game!")  
 player = True  
 break

and then I add a score counter so if player or the npc win 5 games the game will end

player = input("Rock,Paper,Scissors,Lizard,Spock : ")  
  
if player == NPC:  
 print("It's A Draw")  
 games\_played +=1  
elif player == "Rock":  
 if NPC == "Paper" :  
 print("You Lose!", NPC, "Covers", player)  
 score\_1 += 1  
 games\_played +=1  
 elif NPC == "Scissors":  
 print("Congratulations, You Win!", player, "Smash", NPC)  
 score += 1  
 games\_played +=1  
 elif NPC == "Lizard":  
 print("Congratulations, You Win!", player, "Crush", NPC)  
 score += 1  
 games\_played +=1  
 else:  
 print("You Lose!", NPC, "Vaporize", player)  
 score\_1 += 1  
 games\_played +=1

and then I use input so the player can input their choice, and I set if the player choice is the same as the npc the results will be draw, also I add games\_played +=1 inside the if so the total games played will be increased. And then I use if & elif to make the answers for the game. I keep reusing the same code instead of using class ( because I tried using class but I can’t make it work )

elif player == "Paper":  
 if NPC == "Rock":  
 print("Congratulations, You Win!", player, "Covers", NPC)  
 score += 1  
 games\_played +=1  
 elif NPC == "Scissors":  
 print("You Lose!", NPC, "Cut", player)  
 score\_1 += 1  
 games\_played +=1  
 elif NPC == "Lizard":  
 print("You Lose!", NPC, "Eats", player)  
 score += 1  
 games\_played +=1  
 else:  
 print("Congratulations, You Win!", player, "Disaproves", NPC)  
 score += 1  
 games\_played +=1  
elif player == "Scissors":  
 if NPC == "Rock":  
 print("You Lose!", NPC, "Smash", player)  
 score\_1 += 1  
 games\_played +=1  
 elif NPC == "Paper":  
 print("Congratulations, You Win!", player, "Cut", NPC)  
 score += 1  
 games\_played +=1  
 elif NPC == "Lizard":  
 print("Congratulations, You Win!", player, "Decapitates", NPC)  
 score += 1  
 games\_played +=1  
 else:  
 print("You Lose!", NPC, "Smashes", player)  
 score\_1 += 1  
 games\_played +=1  
  
elif player == "Lizard":  
 if NPC == "Rock":  
 print("You Lose!", NPC, "Crushes", player)  
 score\_1 += 1  
 games\_played +=1  
 elif NPC == "Scissors":  
 print("You Lose!", NPC, "Decapitates", player)  
 score\_1 += 1  
 games\_played +=1  
 elif NPC == "Spock":  
 print("Congratulations, You Win!", player, "Poisons", NPC)  
 score += 1  
 games\_played +=1  
 else:  
 print("Congratulations, You Win!", player, "Eats", NPC)  
 score += 1  
 games\_played +=1  
elif player == "Spock":  
 if NPC == "Rock":  
 print("Congratulations, You Win!", player, "Vaporize", NPC)  
 score += 1  
 games\_played +=1  
 elif NPC == "Paper":  
 print("You Lose!", NPC, "Disaproves", player)  
 score\_1 += 1  
 games\_played +=1  
 elif NPC == "Scissors":  
 print("Congratulations, You Win!", player, "Smashes", NPC)  
 score += 1  
 games\_played +=1  
 else:  
 print("You Lose!", NPC, "Poisons", player)  
 score\_1 += 1  
 games\_played +=1

I reuse the same code to make the answer.

else:  
 print("I Can't Understand The Word, Check Your Spelling")  
player = False  
print("Total Games Played :")  
print(games\_played)  
print("Your Score is :")  
print(score)  
print("NPC Score is :")  
print(score\_1)  
NPC = options[randint(0, 4)]

and then I put else again if the player misstype the program will print the word above. And then I set the player to false again so the game can start again

also I print the total games played and the player score and npc score

at the end I put randint again so the game won’t stop.

**4.Lessons that Have Been Learned**

from random import randint

randint from random module , randint is an inbuilt function of the random module in Python3. The random module gives access to various useful functions and one of them being able to generate random numbers,

**Resources :**

[*https://www.geeksforgeeks.org/python-randint-function/*](https://www.geeksforgeeks.org/python-randint-function/) where I learned the randint function

[*https://stackoverflow.com*](https://stackoverflow.com) (website I used when I was trying to fix the errors)