

In [1]: *# understanding the basic data types and lists in python*

```
possible_actions = ["rock", "paper", "scissors"]
```

In [2]: *# Working with Lists and accessing the elements*

```
possible_actions[0]
```

Out[2]: 'rock'

In [3]: *# Taking user inputs and printing them*

```
user_action = input("Enter a choice (rock, paper, scissors): ")  
user_action
```

Enter a choice (rock, paper, scissors): paper

Out[3]: 'paper'

In [4]: *# Working on random library*

```
import random  
computer_action = random.choice(possible_actions)  
computer_action
```

Out[4]: 'rock'

In [5]: *# Initializing the value of variable*

```
play_again='q'  
play_again
```

Out[5]: 'q'

In [6]: *#creating loops and asking to play the games multiple times unless the user enter*

```
while True:  
    if play_again.lower() == "q":  
        break
```

In [7]: *#Using Conditional operators to play the game with different options in different*

```
if user_action == computer_action:
    print(f"Both players selected {user_action}. It's a tie!")
elif user_action == "rock":
    if computer_action == "scissors":
        print("Rock smashes scissors! You win!")
    else:
        print("Paper covers rock! You lose.")
elif user_action == "paper":
    if computer_action == "rock":
        print("Paper covers rock! You win!")
    else:
        print("Scissors cuts paper! You lose.")
elif user_action == "scissors":
    if computer_action == "paper":
        print("Scissors cuts paper! You win!")
    else:
        print("Rock smashes scissors! You lose.")
```

Paper covers rock! You win!

In [8]: *# Rock, Paper, Scissor game*

```
import random

while True:
    user_action = input("Enter a choice (rock, paper, scissors): ")
    possible_actions = ["rock", "paper", "scissors"]
    computer_action = random.choice(possible_actions)
    print(f"\nYou chose {user_action}, computer chose {computer_action}.\n")

    if user_action == computer_action:
        print(f"Both players selected {user_action}. It's a tie!")
    elif user_action == "rock":
        if computer_action == "scissors":
            print("Rock smashes scissors! You win!")
        else:
            print("Paper covers rock! You lose.")
    elif user_action == "paper":
        if computer_action == "rock":
            print("Paper covers rock! You win!")
        else:
            print("Scissors cuts paper! You lose.")
    elif user_action == "scissors":
        if computer_action == "paper":
            print("Scissors cuts paper! You win!")
        else:
            print("Rock smashes scissors! You lose.")

    play_again = input("Press q to quit and n to continue: ")
    if play_again.lower() == "q":
        break
```

Enter a choice (rock, paper, scissors): rock

You chose rock, computer chose scissors.

Rock smashes scissors! You win!

Press q to quit and n to continue: n

Enter a choice (rock, paper, scissors): paper

You chose paper, computer chose paper.

Both players selected paper. It's a tie!

Press q to quit and n to continue: q

In []: