

TASK-2

1) Develop a python program which prompts user to enter rock/paper/scissor and displays win or lose. Basically you have to develop a rock, paper, scissor game.

How it works:

1. The program repeatedly prompts the user for their choice of "rock", "paper", or "scissors".
2. If the user enters "quit", the game ends.
3. The computer's choice is generated randomly.
4. The winner is determined based on the rules of Rock, Paper, Scissors:
 - o Rock beats Scissors
 - o Scissors beats Paper
 - o Paper beats Rock
5. The result is displayed, and the user can play again or quit.

Code:

```
import random
```

```
def get_computer_choice():
```

```
    """Randomly selects Rock, Paper, or Scissors for the computer."""
```

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

```
    return random.choice(choices)
```

```
def determine_winner(user_choice, computer_choice):
```

```
    """Determines the winner of the game."""
```

```
    if user_choice == computer_choice:
```

```
        return "It's a tie!"
```

```
    elif (user_choice == "rock" and computer_choice == "scissors") or \
```

```
(user_choice == "scissors" and computer_choice == "paper") or \
(user_choice == "paper" and computer_choice == "rock"):
    return "You win!"
else:
    return "You lose!"

def main():
    """Main function to play Rock, Paper, Scissors."""
    print("Welcome to Rock, Paper, Scissors!")
    print("Type 'rock', 'paper', or 'scissors' to play. Type 'quit' to exit.")

    while True:
        user_choice = input("Your choice: ").lower()

        if user_choice == "quit":
            print("Thanks for playing! Goodbye!")
            break

        if user_choice not in ["rock", "paper", "scissors"]:
            print("Invalid input. Please choose 'rock', 'paper', or 'scissors'.")
            continue

        computer_choice = get_computer_choice()
        print(f"Computer chose: {computer_choice}")

        result = determine_winner(user_choice, computer_choice)
        print(result)
```

```
if __name__ == "__main__":
```

```
    main()
```

OUTPUT:

Output Clear

```
Welcome to Rock, Paper, Scissors!  
Type 'rock', 'paper', or 'scissors' to play. Type 'quit' to exit.  
Your choice: paper  
Computer chose: paper  
It's a tie!  
Your choice: rock  
Computer chose: scissors  
You win!  
Your choice: scissors  
Computer chose: scissors  
It's a tie!
```