



NOIDA INSTITUTE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institute under the Affiliation of AKTU, Lucknow)
19, Knowledge Park- II, Institutional Area, Greater Noida (UP) – 201306

**An Internship in Python
Programming**

At



Submitted To:-

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Organizational Introduction



Cod-Soft is a IT services and IT consultancy firm that specializes in creating innovative solutions for businesses. They are passionate about technology and believe in the power of software to transform the world. Their internship program is just one of the ways in which they are investing in the future of the industry.

Website: <https://codsofttr.in/>
Founded 2022

Task

CALCULATOR

Created a Calculator with all basic functionalities and use-cases using Python Programming showcasing My developmental skills. The project emphasizes a simple command line interface , ensuring a simple , neat and clean presentation.

```
24 print("1. Addition")
25 print("2. Subtraction")
26 print("3. Multiplication")
27 print("4. Division")
28
29 # Get the user's choice of operation
30 choice = input("Enter choice (1/2/3/4): ")
31
32 # Validate the choice
33 if choice in ['1', '2', '3', '4']:
34     try:
35         # Get the numbers from the user
36         num1 = float(input("Enter first number: "))
37         num2 = float(input("Enter second number: "))
38
39         # Perform the chosen operation
40         if choice == '1':
41             result = add(num1, num2)
42         elif choice == '2':
43             result = subtract(num1, num2)
44         elif choice == '3':
45             result = multiply(num1, num2)
46         elif choice == '4':
47             result = divide(num1, num2)
48
49         # Display the result
50         print("Result:", result)
51     except ValueError:
52         print("Error: Invalid input. Please enter numeric values.")
53     else:
54         print("Error: Invalid choice. Please select a valid operation.")
55
56 # Run the calculator
57 if __name__ == "__main__":
58     calculator()
59
60 (Simple Calculator))
select operation:
1. Addition
2. Subtraction
3. Multiplication
4. Division
Enter choice (1/2/3/4): 1
Enter first number: 4
Enter second number: 5
Result: 9.0
```

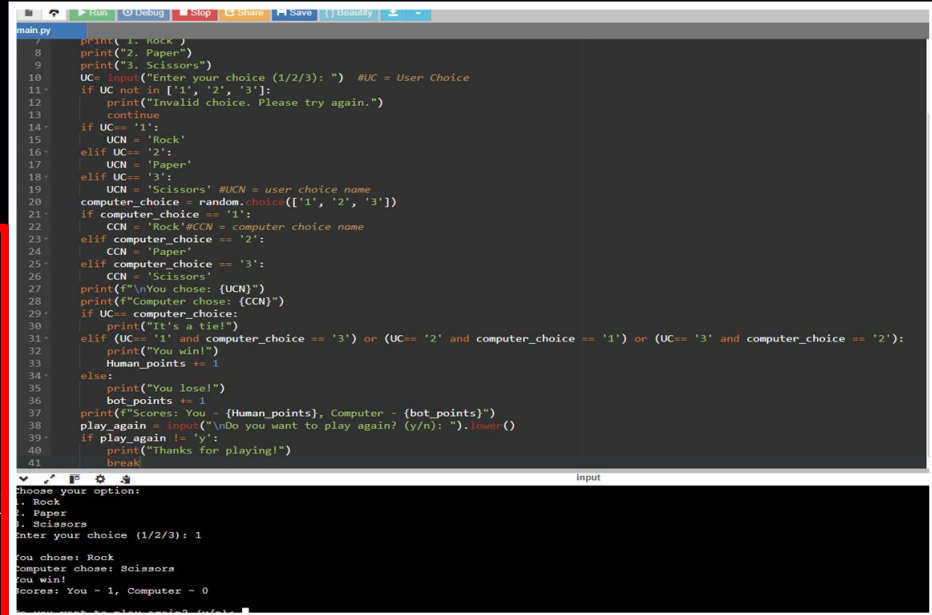
Task 2

Rock-paper-scissor game

Designed an engaging rock paper
scissor game using Python.

The user can choose whether to play
the next game or not !

There is also a counter that keeps the track
Of score till the match you played.



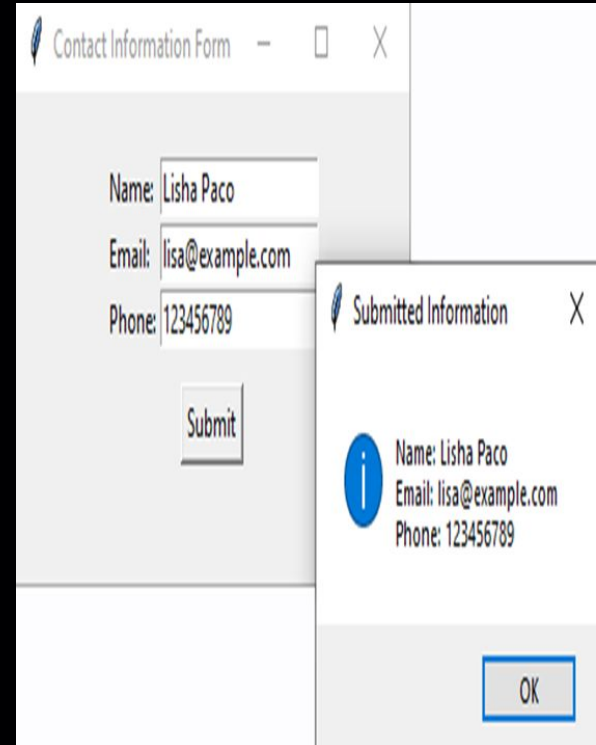
```
main.py
1 print(1, "Rock")
2 print(2, "Paper")
3 print(3, "Scissors")
4
10 UC= input("Enter your choice (1/2/3): ") #UC = User Choice
11 if UC not in ['1', '2', '3']:
12     print("Invalid choice. Please try again.")
13     continue
14
15 if UC== '1':
16     UCN = 'Rock'
17 elif UC== '2':
18     UCN = 'Paper'
19 elif UC== '3':
20     UCN = 'Scissors' #UCN = user choice name
21 computer_choice = random.choice(['1', '2', '3'])
22 CCN = 'Rock'#CCN = computer choice name
23 elif computer_choice == '2':
24     CCN = 'Paper'
25 elif computer_choice == '3':
26     CCN = 'Scissors'
27 print(f"\nYou chose: {UCN}")
28 print(f"Computer chose: {CCN}")
29
29 if UC== computer_choice:
30     print("It's a tie!")
31 elif (UC== '1' and computer_choice == '3') or (UC== '2' and computer_choice == '1') or (UC== '3' and computer_choice == '2'):
32     print("You win!")
33     Human_points += 1
34 else:
35     print("You lose!")
36     bot_points += 1
37 print(f"Scores: You - {Human_points}, Computer - {bot_points}")
38 play_again = input("\nDo you want to play again? (y/n): ").lower()
39 if play_again != 'y':
40     print("Thanks for playing!")
41     break
```

Choose your option:
1. Rock
2. Paper
3. Scissors
Enter your choice (1/2/3): 1
You chose: Rock
Computer chose: Scissors
You win!
Scores: You - 1, Computer - 0

Task 3

CONTACT MANAGER

Developed a functional contact manager app using python and it's library tkinter. It can save record , edit existing record , display pre saved record etc
The appealing user interface from tkinter provides an efficient interaction between user and the system.
It can also be connected to a file or database to ensure scalability



OUTCOME

The Internship provided me to explore how a developmental approach is taken in the corporate world.

It helped me to learn new techniques and also to explore how github works in the professional world.

These projects also helped me to increase my coding knowledge and gain expertise in Python

The exploration part and the independency of adding features according to myself gave me the liberty to be creative and imaginative .

Overall it was a great experience to learn and develop amazing projects using Python !



CERTIFICATE

