LOKESH PRABHU
Python Coding Assignment

1. Write a Python program to check if a number is prime.

```python
num = int(input("Enter a number: "))

if num > 1:
    for i in range(2, num):
        if num % i == 0:
            print("Not Prime")
            break
    else:
        print("Prime")
else:
        print("Not Prime")
```

PS C:\Users\user\Wipro_Traning> &
C:/Users/user/AppData/Local/Programs/Python/Python312/python.exe
"c:/Users/user/Wipro_Traning/Prime Number.py"
Enter a number: 12
Not Prime
PS C:\Users\user\Wipro_Traning> &
C:/Users/user/AppData/Local/Programs/Python/Python312/python.exe
"c:/Users/user/Wipro_Traning/Prime Number.py"
Enter a number: 7
Prime

2. Write a program to find the largest number in a list.

```python
num1 = int(input("enter the first number"))
num2 = int(input("enter the Second number"))

if num1>num2:
    print("First number is greater")

else:
    print("Second number is greater")
```

PS C:\Users\user\Wipro_Traning> &
C:/Users/user/AppData/Local/Programs/Python/Python312/python.exe
"c:/Users/user/Wipro_Traning/Largest Number.py"
enter the first number23
enter the Second number65
Second number is greater

3. Create a calculator using Python functions.

```python
def add(a, b):
    return a + b

def sub(a, b):
    return a - b

def mul(a, b):
    return a * b

def div(a, b):
    return a / b

print("1.Add 2.Subtract 3.Multiply 4.Divide")
choice = int(input("Enter choice: "))

x = float(input("Enter first number: "))
y = float(input("Enter second number: "))

if choice == 1:
    print("Result:", add(x, y))
elif choice == 2:
    print("Result:", sub(x, y))
elif choice == 3:
    print("Result:", mul(x, y))
elif choice == 4:
    print("Result:", div(x, y))
else:
    print("Invalid choice")
```

PS C:\Users\user\Wipro_Traning> &
C:/Users/user/AppData/Local/Programs/Python/Python312/python.exe
"c:/Users/user/Wipro_Traning/Calculator function.py"

1.Add 2.Subtract 3.Multiply 4.Divide
Enter choice: 3
Enter first number: 25
Enter second number: 10
Result: 250.0

4. Write a program to count vowels in a string

```python
text = input("Enter a string: ")


vowels = "aeiouAEIOU"
count = 0

for char in text:
    if char in vowels:
        count += 1
        print("Number of vowels:", count)
```

PS C:\Users\user\Wipro_Traning> &
C:/Users/user/AppData/Local/Programs/Python/Python312/python.exe
c:/Users/user/Wipro_Traning/vowels.py
Enter a string: Red Dead Redemtion
Number of vowels: 7

5. Write a Python program to read and write files.

```python
# Writing to a file
with open("sample.txt", "w") as f:
    f.write("Hello, this is a test file.")

# Reading from a file
with open("sample.txt", "r") as f:
    content = f.read()
    print(content)
```

PS C:\Users\user\Wipro_Traning> &
C:/Users/user/AppData/Local/Programs/Python/Python312/python.exe
"c:/Users/user/Wipro_Traning/Read and Write.py"
Hello, this is a test file.
PS C:\Users\user\Wipro_Traning>

1. Write a Python program to check if a number is prime.

```python
test.py > ...
1    num = int(input("Enter number: "))
2    count = 0
3
4    for i in range(1, num + 1):
5        if num % i == 0:
6            count = count + 1
7
8    if count == 2:
9        print("It is Prime")
10   else:
11       print("Not Prime")
```

```
PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL    PORTS    

PS E:\11> & C:/Python312/python.exe e:/11/test.py
Enter number: 3
It is Prime
```

2. Write a program to find the largest number in a list.

```python
listlargest.py > ...
1    numbers = [31, 12, 53, 20, 9]
2
3    big = numbers[0]
4
5    for x in numbers:
         automotive\content.py  big:
7              big = x
8
9    print("Largest is:", big)
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINA

```
PS E:\wipro automotive> & C:/Python312/
Largest is: 53
```

3. Create a calculator using Python functions

```python
    test.py > ...
22    num1 = float(input("Enter first number: "))
23    num2 = float(input("Enter second number: "))
24
25    if choice == '1':
26        print("Result:", add(num1, num2))
27    elif choice == '2':
28        print("Result:", subtract(num1, num2))
29    elif choice == '3':
30        print("Result:", multiply(num1, num2))
31    elif choice == '4':
32        print("Result:", divide(num1, num2))
33    else:
34        print("Invalid Input")
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   **TERMINAL**   PORTS   QUERY RESU

```
PS E:\11> & C:/Python312/python.exe e:/11/test.py
Select operation:
1. Add
2. Subtract
3. Multiply
4. Divide
Enter choice (1/2/3/4): 2
Enter first number: 4
Enter second number: 2
Result: 2.0
```

4. Write a program to count vowels in a string

```python
text = input("Enter a string: ")
vowels = "aeiouAEIOU"
count = 0

for char in text:
    if char in vowels:
        count += 1

print("Number of vowels:", count)
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   **TERMINAL**

```
PS E:\11> & C:/Python312/python.exe e:/11/t
Enter a string: Himaja
Number of vowels: 3
```

5. Write a Python program to read and write files.

```python
1
2    with open("example.txt", "w") as file:
3        file.write("Hello!  \n")
4
5    with open("example.txt", "r") as file:
6        content = file.read()
7        print("File Content:\n", content)
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   **TERMINAL**   PORTS

```
PS E:\11> & C:/Python312/python.exe e:/11/test.py
File Content:
 Hello!
```

1. Write a Python program to check if a number is prime.

```
prime.py > ...
1    num= int ( input("enter a number:"))
2    for i in range(2,num):
3        if num % i==0:
4            print(num,"not a prime")
5            break
6        else:
7            print (num,"prime")
```

```
PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS
PS C:\Users\pavit\.vscode\extensions\ms-toolsai.jupyter-renderers-1.3.0> & C
/Users/pavit/.vscode/extensions/ms-toolsai.jupyter-renderers-1.3.0/prime.py
enter a number:8
8 not a prime
PS C:\Users\pavit\.vscode\extensions\ms-toolsai.jupyter-renderers-1.3.0>
```

2. Write a program to find the largest number in a list.

```
largest-num.py > ...
1    L=[1,2,3,4,5,6,7,8,9]
2    largest_num = L[0]
3    for number in L:
4        if number>largest_num:
5            largest_num=number
6    print(" largest element is:",largest_num)
```

```
PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS
PS C:\Users\pavit\.vscode\extensions\ms-toolsai.jupyter-renderers-1.3.0> & C:/
/Users/pavit/.vscode/extensions/ms-toolsai.jupyter-renderers-1.3.0/largest-num
 largest element is: 9
PS C:\Users\pavit\.vscode\extensions\ms-toolsai.jupyter-renderers-1.3.0>
```

3. Create a calculator using Python functions.

```
calculator.py > ...
1     print("two number below")
2     a=int(input("enter first number:"))
3     b= int(input("enter second number;"))
4     ch=0
5     while ch<5:
6         print("cacalculator menu")
7         print(" 1.add")
8         print("2.subtract")
9
10        ch=int(input("enter choice:"))
11        if ch==1:
12            c=a+b
13            print("sum:",c)
14        elif ch==2:
15            c=a-b
16            print("difference;",c)
17        else:
18            print(" wrong")
19
20
```

\

4. Write a program to count vowels in a string.

```
largest-num.py > ...
1   s=input("enter string:")
2   vowels="aeiouAEIOU"
3   count=0
4   for char in s:
5       if char in vowels:
6           count+=1
7           print("num of vowels:",count)
```

5. Write a Python program to read and write files.

```
text read.py > ...
1   file=open("example.txt","r")
2   file.write(" hello team")
3
4   file.close()
5
```

Coding question

1. Write a Python program to check if a number is prime.

```python
day1.py > ...
1    num = int(input("Enter number: "))
2    count = 0
3
4    for i in range(1, num + 1):
5        if num % i == 0:
6            count = count + 1
7
8    if count == 2:
9        print("It is Prime")
10   else:
11       print("Not Prime")
```

```
PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL    PORTS

PS E:\11> & C:/Python312/python.exe e:/11/day
Enter number: 13
It is Prime
```

2. Write a program to find the largest number in a list.

```python
numbers = [14, 2, 55, 20, 9]

big = numbers[0]

for x in numbers:
    if x > big:
        big = x

print("Largest is:", big)
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS   QUERY

```
PS E:\11> & C:/Python312/python.exe e:/11/day1.py
Largest is: 55
```

3. Create a calculator using Python functions

```python
def add(x, y):
    return x + y

def subtract(x, y):
    return x - y

def multiply(x, y):
    return x * y

def divide(x, y):
    if y == 0:
        return "Cannot divide by zero"
    return x / y

print("Select operation:")
print("1. Add")
print("2. Subtract")
print("3. Multiply")
print("4. Divide")

choice = input("Enter choice (1/2/3/4): ")
num1 = float(input("Enter first number: "))
num2 = float(input("Enter second number: ")

if choice == '1':
    print("Result:", add(num1, num2))
elif choice == '2':
    print("Result:", subtract(num1, num2))
elif choice == '3':
    print("Result:", multiply(num1, num2))
elif choice == '4':
    print("Result:", divide(num1, num2))
else:
    print("Invalid Input")
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   **TERMINAL**   PORTS   QUERY

```
PS E:\11> & C:/Python312/python.exe e:/11/day1.py
Select operation:
1. Add
2. Subtract
3. Multiply
4. Divide
Enter choice (1/2/3/4): 1
Enter first number: 2
Enter second number: 3
Result: 5.0
```

4. Write a program to count vowels in a string

```python
text = input("Enter a string: ")
vowels = "aeiouAEIOU"
count = 0

for char in text:
    if char in vowels:
        count = count + 1

print("Total vowels:", count)
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   **TERMINAL**   PORTS

```
PS E:\11> & C:/Python312/python.exe e:/11/day1
Enter a string: konijeti
Total vowels: 4
```

5. Write a Python program to read and write files.

```python
with open("myfile.txt", "w") as file:
    file.write("This is a simple text file.\n")

with open("myfile.txt", "r") as file:
    content = file.read()
    print(content)
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   **TERMINAL**   PORTS   QUERY RESULTS

```
PS E:\11> & C:/Python312/python.exe e:/11/day1.py
This is a simple text file.
```

Coding question

1. Write a Python program to check if a number is prime.

```python
prime.py > ...
1    number = int(input("Enter a number: "))
2
3    if number > 1:
4        for i in range(2, number):
5            if (number % i) == 0:
6                print(number, "is NOT a prime number")
7                break
8        else:
9            print(number, "is a PRIME number")
10   else:
11       print(number, "is NOT a prime number")
```

```
PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL    PORTS    QUERY RESULTS

PS E:\wipro automotive> & C:/Python312/python.exe "e:/wipr(
Enter a number: 7
7 is a PRIME number
```

2. Write a program to find the largest number in a list.

```python
numbers = [2, 53, 2, 9, 50, 33]
largest = numbers[0]

for num in numbers:
    if num > largest:
        largest = num

print("The largest number is:", largest)
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   **TERMINAL**   PORTS   QUERY RESULTS   SPELL CHECKE

```
PS E:\wipro automotive> & C:/Python312/python.exe "e:/wipro automot
The largest number is: 53
PS E:\wipro automotive>
```

3. Create a calculator using Python functions

```python
num1 = float(input("Enter first number: "))
op = input("Enter operator (+, -, *, /): ")
num2 = float(input("Enter second number: "))

if op == '+':
    print("Result:", num1 + num2)
elif op == '-':
    print("Result:", num1 - num2)
elif op == '*':
    print("Result:", num1 * num2)
elif op == '/':
    print("Result:", num1 / num2)
else:
    print("Invalid operator")
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   **TERMINAL**   PORTS   QUERY RESULTS

```
PS E:\wipro automotive> & C:/Python312/python.exe "e:/wi
Enter first number: 3
Enter operator (+, -, *, /): *
Enter second number: 2
Result: 6.0
PS E:\wipro automotive>
```

4. Write a program to count vowels in a string

```python
text = input("Enter a string: ")
vowels = "aeiouAEIOU"
count = 0

for char in text:
    if char in vowels:
        count += 1

print("Number of vowels:", count)
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   **TERMINAL**   PORTS   QUERY

```
PS E:\wipro automotive> & C:/Python312/python.exe "
Enter a string: Ritikesh
Number of vowels: 3
```

5. Write a Python program to read and write files.

```python
content.py > ...
1
2    with open("example.txt", "w") as file:
3        file.write("Hello! Wipro \n")
4
5    with open("example.txt", "r") as file:
6        content = file.read()
7        print("File Content:\n", content)
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   **TERMINAL**   PORTS   QUERY RESULTS

S E:\wipro automotive> & C:/Python312/python.exe "e:/wipro
ile Content:
Hello! Wipro