AI ASSISTED CODING

ASSIGNMENT-8.4

BATCHN0:04

ROLLNO:2403A52084

TASK-1:

PROMPT:Input:3 and output:9.write a python code that gives square of a number and satisfies the given test case

Code:

```
def square_number(n):
    return n * n

# Test case
input_value = 3
output_value = square_number(input_value)
print(output_value)  # Expected output: 9
```

Output:

```
PS C:\Users\Lasya\Desktop\AI ASSITED CODING> & C:\Users\Lasya\AppData\Local\Programs\Python\Python313\python.exe "c:/Users/Lasya/Desktop/AI ASSITED CODING/lab8_4/task1"
9
PS C:\Users\Lasya\Desktop\AI ASSITED CODING>
```

Observation:

this code defines a function to return the square of a number and prints the square of 3, which is 9.

TASK-2:

PROMPT: INPUT:user@example.com and write a python code to satisfy the given input

Code:

```python
def print_email(email):
    print(email)

# Test case
input_email = "user@example.com"
print_email(input_email)
```

Output:

```
PS C:\Users\Lasya\Desktop\AI ASSITED CODING> C:\Users\Lasya\AppData\Local\Programs
\Python\Python313\python.exe "c:/Users/Lasya/Desktop/AI ASSITED CODING/lab8_4/task
-2"
user@example.com
PS C:\Users\Lasya\Desktop\AI ASSITED CODING>
```

Observation: This code defines a function print_email(email) that prints the given email address.It sets input_email to "user@example.com" and calls print_email(input_email), which outputs the email to the console.

TASK-3:

PROMPT: input:a=3,b=10,c=5 and max=b and write a python code to get max of three numbers and satisfies the input.

Code:

```python
def max_of_three(a, b, c):
    return max(a, b, c)

# Test case
a = 3
b = 10
c = 5
max_value = max_of_three(a, b, c)
print(max_value)
```

Output:

```
PS C:\Users\Lasya\Desktop\AI ASSITED CODING> & C:\Users\Lasya\AppData\Local\Progra
ms\Python\Python313\python.exe "c:/Users/Lasya/Desktop/AI ASSITED CODING/lab8_4/ta
sk-3"
10
```

Observation: This code defines a function max_of_three(a, b, c) that returns the largest of three numbers using Python's built-in max() function.
It sets a = 3, b = 10, and c = 5, then finds and prints the maximum value, which is 10.

TASK-4:

PROMPT: INPUT:add_item-apples,remove_item grapes,total_price and write a python code to satisfy the given inputs.

Code:

```python
class ShoppingCart:
    def __init__(self):
        self.items = {}

    def add_item(self, item, price):
        self.items[item] = price

    def remove_item(self, item):
        if item in self.items:
            del self.items[item]

    def total_price(self):
        return sum(self.items.values())

# Test case
cart = ShoppingCart()
cart.add_item("apples", 30)       # Add apples with price 30
cart.add_item("grapes", 20)       # Add grapes with price 20
cart.remove_item("grapes")        # Remove grapes
print(cart.total_price())
```

Output:

```
PS C:\Users\Lasya\Desktop\AI ASSITED CODING> & C:\Users\Lasya\AppData\Local\Programs\Python\Python313\python.exe "c:/Users/Lasya/Desktop/AI ASSITED CODING/lab8_4/task-4"
30
PS C:\Users\Lasya\Desktop\AI ASSITED CODING>
```

Observation: This code creates a shopping cart, adds apples and grapes, removes grapes, and prints the total price (30).

TASK-5:

PROMPT: INPUT:121,OUTPUT:PALINDROME AND WRITE A PYTHON CODE THAT SATISFIES THE TESTCASE

CODE:

```python
def is_palindrome(number):
    return str(number) == str(number)[::-1]

# Test case
input_value = 121
if is_palindrome(input_value):
    print("PALINDROME")  # Expected output:
```

OUTPUT:

EXPLANATION: This code defines a function is_palindrome(number) that checks if a number reads the same forwards and backwards by converting it to a string and comparing it to its reverse.
It tests the function with 121, and prints "PALINDROME" if the number is a palindrome.