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Lab No: 05
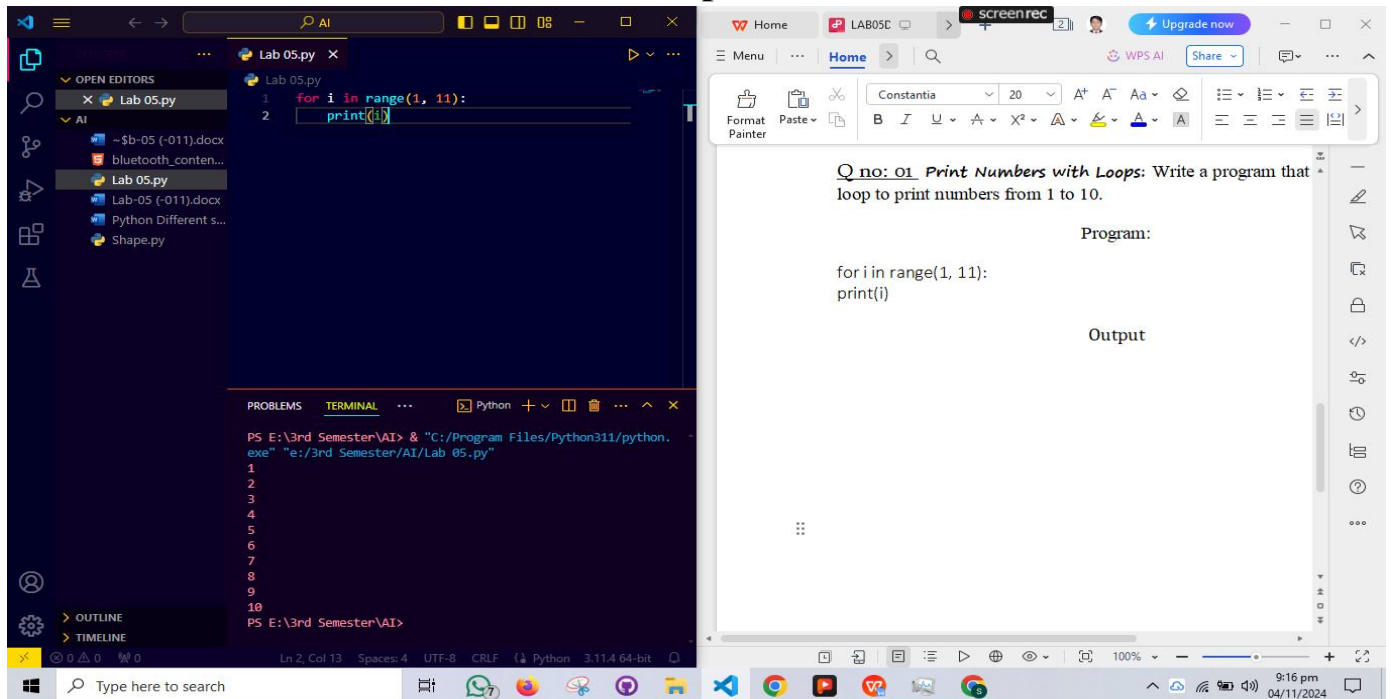
Course: Artificial Intelligence

Instructor: Ma'am Aqsa Umar

Q no: 01 ***Print Numbers with Loops:*** Write a program that uses a loop to print numbers from 1 to 10.

Program:
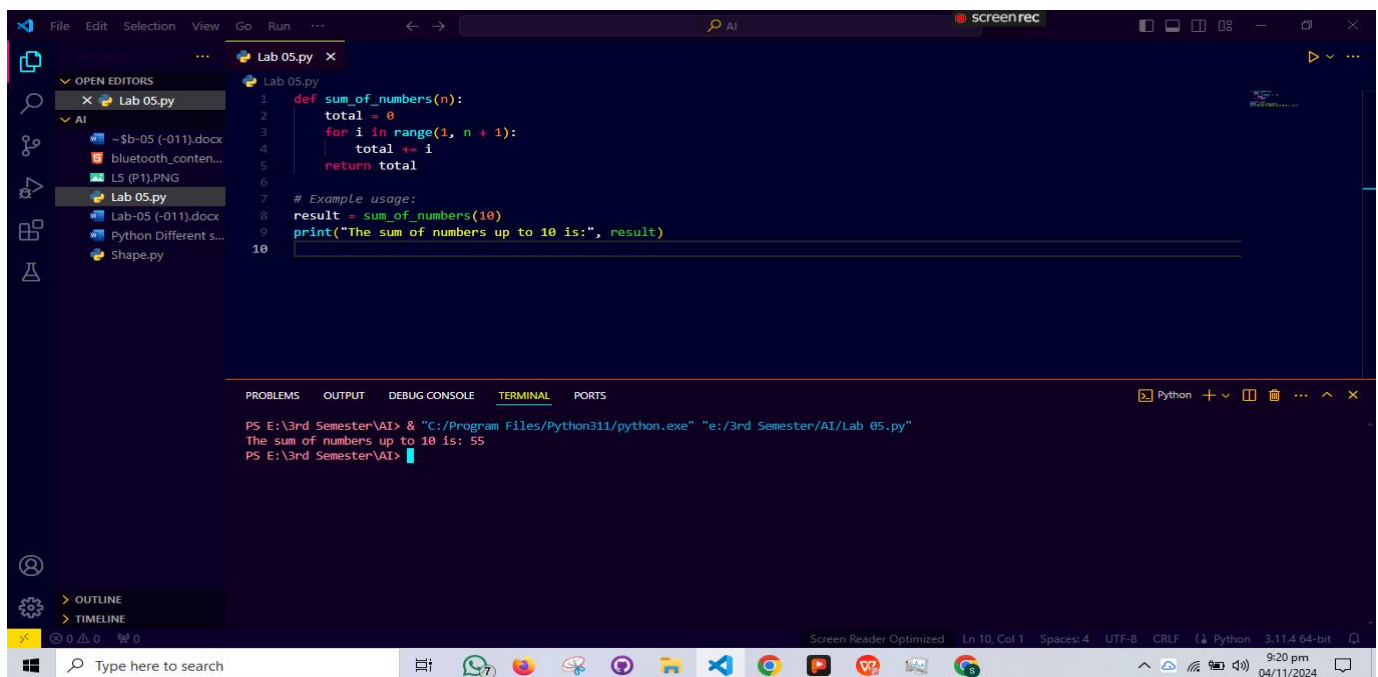
for i in range(1, 11):
print(i)

Output

Q no: 02   *Calculate the Sum of Numbers:* Write a function that calculates the sum of all numbers up to a given number using a loop.

Program

```
def sum_of_numbers(n):
    total = 0
    for i in range(1, n + 1):
        total += i
    return total


result = sum_of_numbers(10)
print("The sum of numbers up to 10 is:", result)
```

Output

Q no: 03 *Display a Star Pattern:* Write code using loops and nested loops to create star pattern.

Program

```python
def star_pattern(n):
    for i in range(1, n + 1):
        for j in range(i):
            print('*', end=' ')
        print()

star_pattern(5)
```

Output
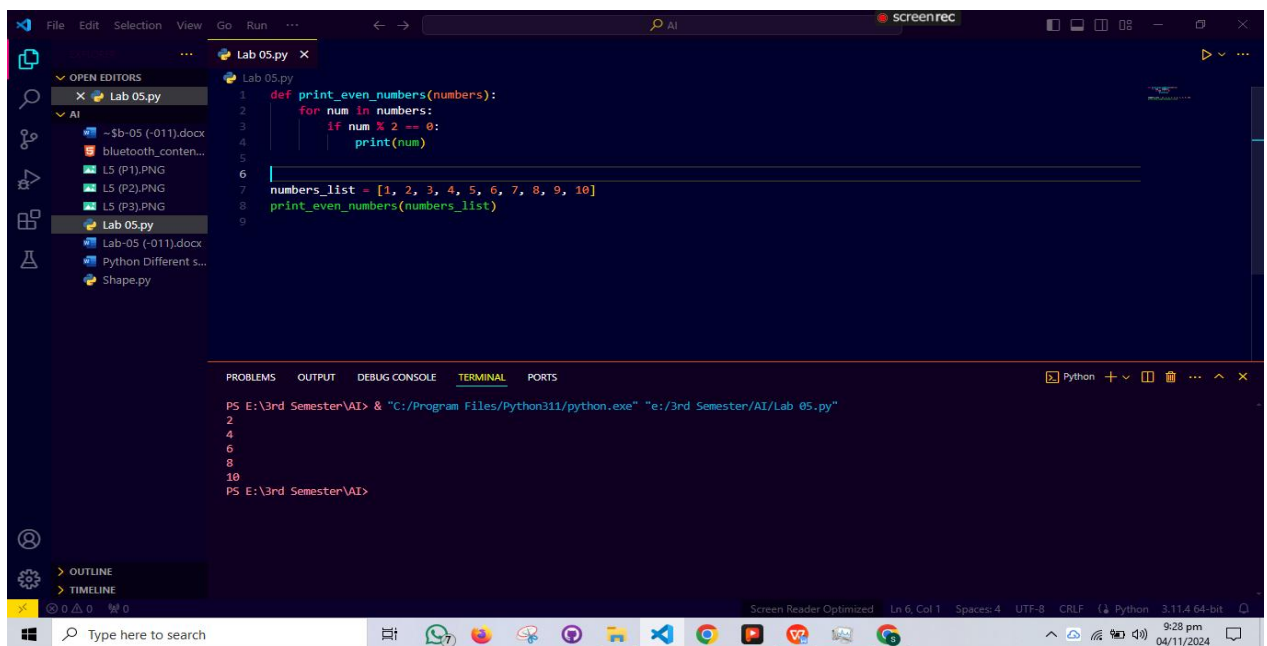
Q no: 04   *Find Even Numbers in a List:* Write a function that takes a list of numbers and prints only the even numbers.

Program

```
def print_even_numbers(numbers):
    for num in numbers:
        if num % 2 == 0:
            print(num)


numbers_list = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
print_even_numbers(numbers_list)
```

Output

The End

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Own Practised