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Section: IT- 3 A

Department: BS-IT

Course: Artificial Intelligence (AI)

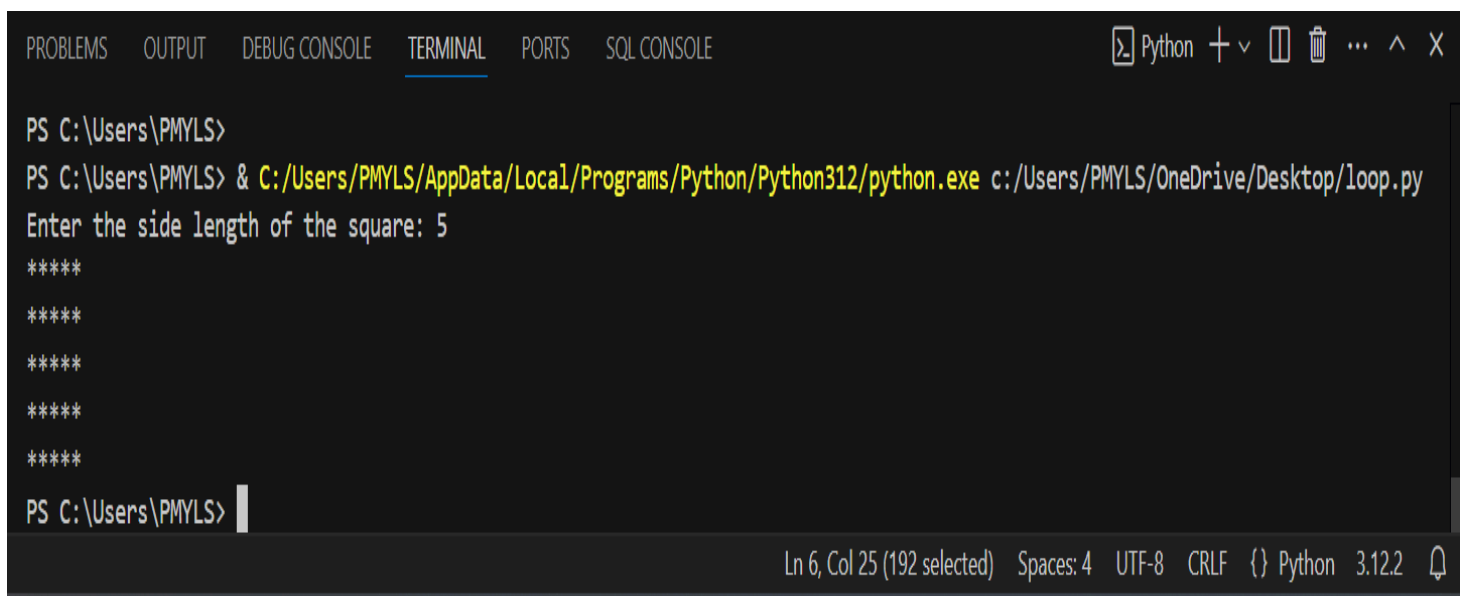
Lab Task: Lab #07

Assigned By: Aqsa Umar

- **Task 01:-** Write a Python function that draws a square using asterisks (*). The side length of the square should be provided by the user.

```
def draw_square(side_length):  
    for _ in range(side_length):  
        print('*' * side_length)
```

```
side_length = int(input("Enter the side length of the square:  
"))  
draw_square(side_length)
```



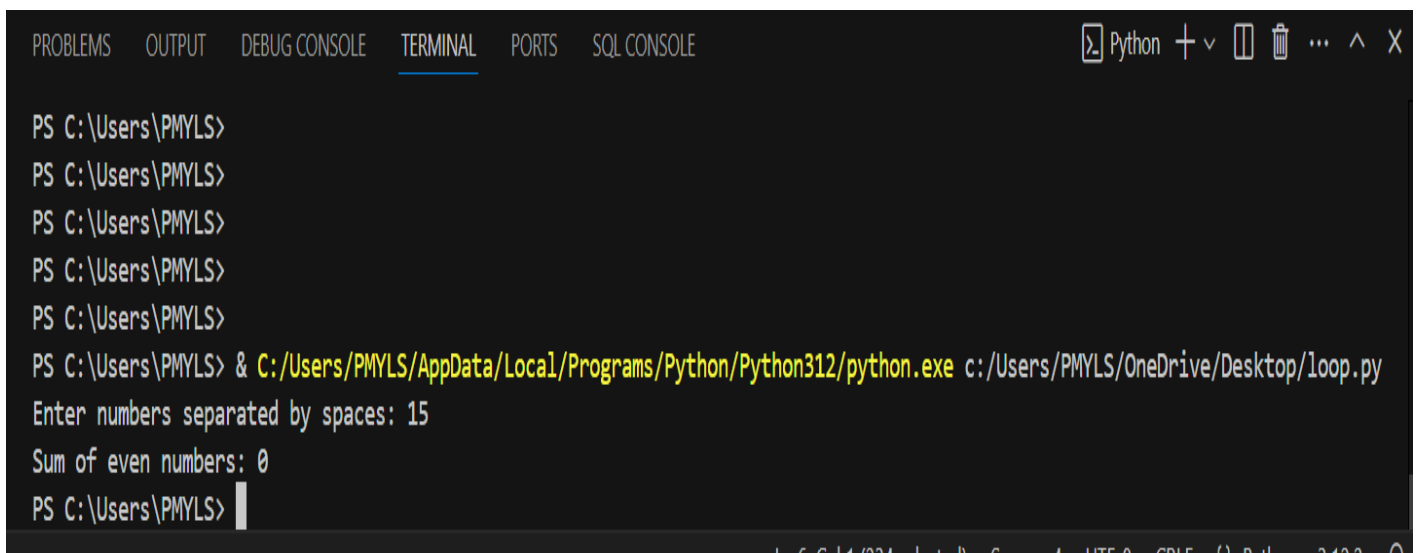
The screenshot shows a Python IDE interface with a terminal window. The terminal displays the following text:

```
PS C:\Users\PMYLS>  
PS C:\Users\PMYLS> & C:/Users/PMYLS/AppData/Local/Programs/Python/Python312/python.exe c:/Users/PMYLS/OneDrive/Desktop/loop.py  
Enter the side length of the square: 5  
*****  
*****  
*****  
*****  
*****  
PS C:\Users\PMYLS>
```

The IDE interface includes tabs for PROBLEMS, OUTPUT, DEBUG CONSOLE, TERMINAL (selected), PORTS, and SQL CONSOLE. The status bar at the bottom indicates "Ln 6, Col 25 (192 selected) Spaces: 4 UTF-8 CRLF {} Python 3.12.2".

- **Task 02:-** Write a Python function that takes a list of numbers as input and returns the sum of only the even numbers.

```
def sum_of_even_numbers(numbers):  
    return sum(num for num in numbers if num % 2 == 0)  
  
numbers = list(map(int, input("Enter numbers separated by  
spaces: ").split()))  
  
print("Sum of even numbers:",  
      sum_of_even_numbers(numbers))
```



The screenshot shows a Windows command prompt window with the following text:

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS SQL CONSOLE Python + v [icon] [icon] ... ^ X  
PS C:\Users\PMYLS>  
PS C:\Users\PMYLS>  
PS C:\Users\PMYLS>  
PS C:\Users\PMYLS>  
PS C:\Users\PMYLS>  
PS C:\Users\PMYLS> & C:/Users/PMYLS/AppData/Local/Programs/Python/Python312/python.exe c:/Users/PMYLS/OneDrive/Desktop/loop.py  
Enter numbers separated by spaces: 15  
Sum of even numbers: 0  
PS C:\Users\PMYLS> |
```

The terminal window has a dark background with white text. The title bar at the top shows 'Python' and various window control icons. The command prompt shows the user's location as 'C:\Users\PMYLS' and the execution of a Python script 'loop.py' which prompts for input and outputs the sum of even numbers.

- **Task 03:-** Write a Python function that takes a number as input and counts down to zero, printing each number.

```
def countdown(number):
```

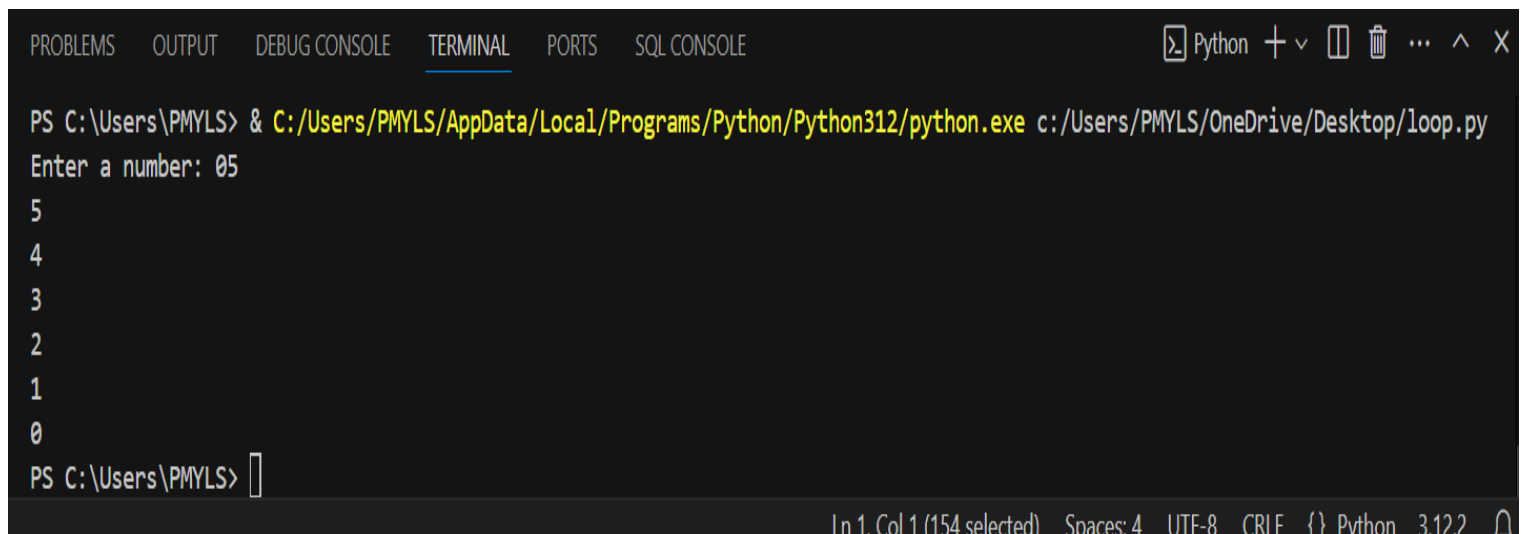
```
    while number >= 0:
```

```
        print(number)
```

```
        number -= 1
```

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

```
countdown(number)
```



The screenshot shows a Python IDE interface with a terminal window. The terminal displays the command to run a Python script named 'loop.py' located at 'c:/Users/PMYLS/OneDrive/Desktop/'. The user has entered '05' as the number, and the program has printed a countdown from 5 to 0. The IDE's status bar at the bottom indicates 'Ln 1, Col 1 (154 selected)', 'Spaces: 4', 'UTF-8', 'CRLF', and 'Python 3.12.2'.

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS SQL CONSOLE Python + v [ ] [ ] ... ^ X
```

```
PS C:\Users\PMYLS> & C:/Users/PMYLS/AppData/Local/Programs/Python/Python312/python.exe c:/Users/PMYLS/OneDrive/Desktop/loop.py
Enter a number: 05
5
4
3
2
1
0
PS C:\Users\PMYLS> [ ]
```

Ln 1, Col 1 (154 selected) Spaces: 4 UTF-8 CRLF {} Python 3.12.2 []