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Std ID: BIT-24S-006

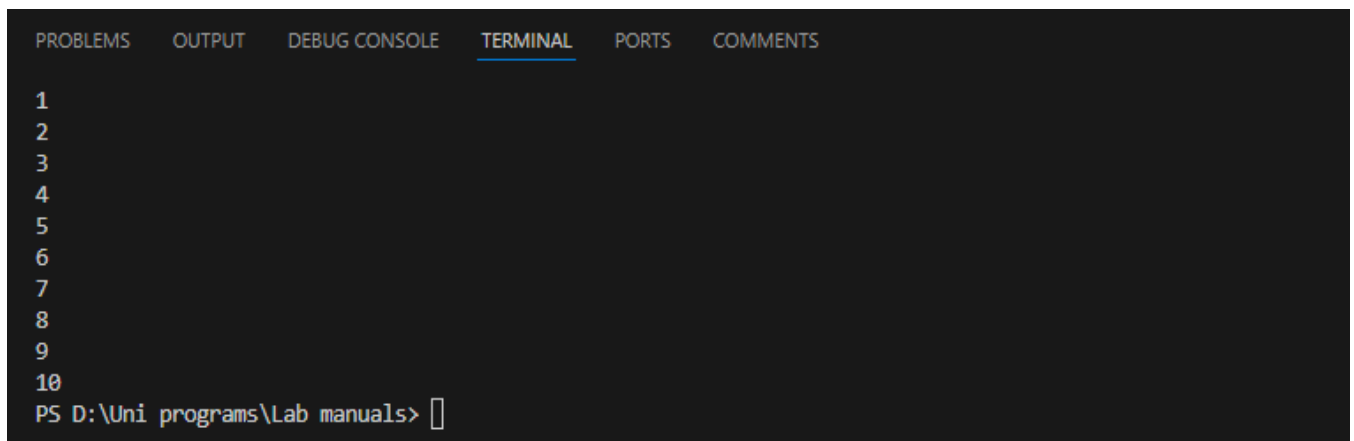
GitHub Link: <https://github.com/Beshair-Khan/Python-Lab>

Lab 02

Task 1: Print numbers from 1 to 10 using a for loop.

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

Output

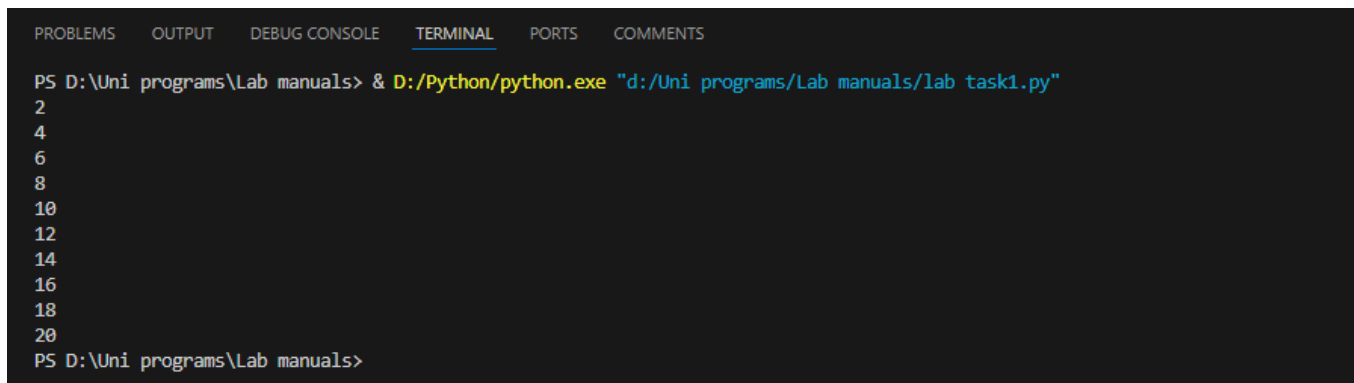


The screenshot shows a terminal window with a dark background. At the top, there are tabs labeled 'PROBLEMS', 'OUTPUT', 'DEBUG CONSOLE', 'TERMINAL' (which is selected and underlined), 'PORTS', and 'COMMENTS'. Below the tabs, the numbers 1 through 10 are printed on separate lines. At the bottom, the command prompt shows 'PS D:\Uni programs\Lab manuals>' followed by a cursor.

Task 2: Print all even numbers between 1 and 20 using a while loop.

```
num=2  
while num <=20:  
    print(num)  
    num+=2
```

Output



The screenshot shows a terminal window with a dark background. At the top, there are tabs labeled 'PROBLEMS', 'OUTPUT', 'DEBUG CONSOLE', 'TERMINAL' (which is selected and underlined), 'PORTS', and 'COMMENTS'. Below the tabs, the even numbers 2, 4, 6, 8, 10, 12, 14, 16, 18, and 20 are printed on separate lines. At the bottom, the command prompt shows 'PS D:\Uni programs\Lab manuals>' followed by a cursor. Above the first line of output, the command 'PS D:\Uni programs\Lab manuals> & D:/Python/python.exe "d:/Uni programs/Lab manuals/lab task1.py"' is visible.

Task 3: Calculate the sum of numbers from 1 to 100 using a loop.

```
total=0
for num in range (1,101):
    total+=num
print(f"The sum of numbers from 1 to 100 is : {total}")
```

Output

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS  COMMENTS

PS D:\Uni programs\Lab manuals> & D:/Python/python.exe "d:/Uni programs/Lab manuals/lab task1.py"
The sum of numbers from 1 to 100 is : 5050
PS D:\Uni programs\Lab manuals>
```

Task 4: Print the multiplication table of 5 using a loop.

```
table=5
print(f"Table of {table}")
for i in range (1,11):
    print(f"{table} x {i} = {table * i}")
```

Output

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS  COMMENTS

PS D:\Uni programs\Lab manuals> & D:/Python/python.exe "d:/Uni programs/Lab manuals/lab task1.py"
Table of 5
5 x 1 = 5
5 x 2 = 10
5 x 3 = 15
5 x 4 = 20
5 x 5 = 25
5 x 6 = 30
5 x 7 = 35
5 x 8 = 40
5 x 9 = 45
5 x 10 = 50
PS D:\Uni programs\Lab manuals> 
```

Task 5: Find the factorial of a given number using a for loop

```
num=int(input("Enter a number: "))
factorial=1
for i in range(1,num+1):
    factorial *=i
print ("Fcatorial of",num,"is",factorial)
```

Output

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS  COMMENTS

PS D:\Uni programs\Lab manuals> & D:/Python/python.exe "d:/Uni programs/Lab manuals/lab task1.py"
Enter a number: 6
Fcatorial of 6 is 720
PS D:\Uni programs\Lab manuals> |
```

Task 6: Create a list of numbers and print only the odd numbers using a loop.

```
numbers = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
for num in numbers:
    if num % 2 != 0:
        print(num)
```

Output

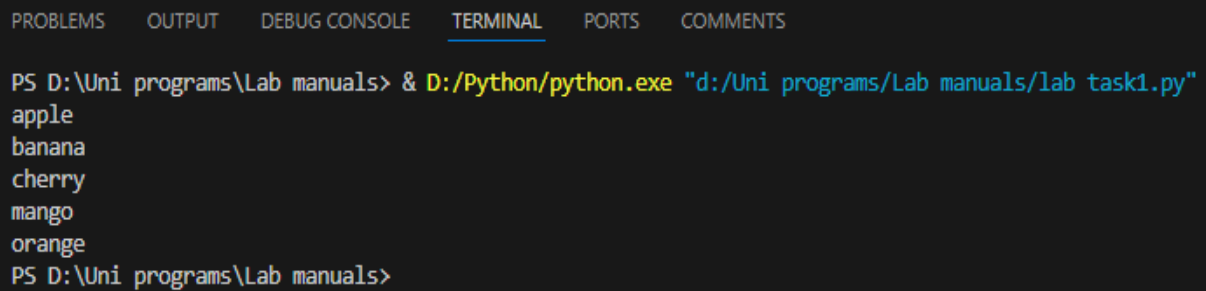
```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS  COMMENTS

PS D:\Uni programs\Lab manuals> & D:/Python/python.exe "d:/Uni programs/Lab manuals/lab task1.py"
1
3
5
7
9
PS D:\Uni programs\Lab manuals>
```

Task 7: Iterate over a list of fruits and print each item.

```
fruits = ["apple", "banana", "cherry", "mango", "orange"]  
for fruit in fruits:  
    print(fruit)
```

Output



The screenshot shows a terminal window with tabs for PROBLEMS, OUTPUT, DEBUG CONSOLE, TERMINAL, PORTS, and COMMENTS. The terminal displays the command to run a Python script and its output.

```
PS D:\Uni programs\Lab manuals> & D:/Python/python.exe "d:/Uni programs/Lab manuals/lab task1.py"  
apple  
banana  
cherry  
mango  
orange  
PS D:\Uni programs\Lab manuals>
```