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LAB 02

Python Looping Tasks

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

```
python
```

```
print("Numbers from 1 to 10:")  
for i in range(1, 11):  
    print(i)
```

Output:

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

```
1  
2  
3  
4  
5  
6  
7  
8  
9  
10
```

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

python

```
print("2. Print all even numbers between 1 and 20 using a while loop:")

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

Output:

```
2. Print all even numbers between 1 and 20 using a while loop:
2
4
6
8
10
12
14
16
18
20
```

2. Calculate the sum of numbers from 1 to 100 using a loop.

python

```
print("3. Calculate the sum of numbers from 1 to 100 using a loop:")

total = 0
for i in range(1, 101):
    total += i

print("Sum from 1 to 100 is:", total)
```

Output:

```
3. Calculate the sum of numbers from 1 to 100 using a loop:
Sum from 1 to 100 is: 5050
```

3. Print the multiplication table of 5 using a loop.

python

```
print("4. Multiplication table of 5:")

for i in range(1, 11):
    print("5 x", i, "=", 5 * i)
```

Output:

4. Multiplication 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

4. Find the factorial of a given number using a for loop.

```
python

print("5. Find the factorial of a given number:")

num = 5 # You can change this number
factorial = 1

for i in range(1, num + 1):
    factorial *= i

print("Factorial of", num, "is:", factorial)
```

Output:

5. Find the factorial of a given number:
Factorial of 5 is: 120

5. Iterate over a list of fruits and print each item.

python

```
print("1. Iterate over a list of fruits and print each item:")

fruits = ["Apple", "Banana", "Orange", "Grapes", "Mango"]

for fruit in fruits:
    print(fruit)
```

Output:

```
1. Iterate over a list of fruits and print each item:
Apple
Banana
Orange
Grapes
Mango
```

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

python

```
print("6. Create a list of numbers and print only the odd numbers:")

numbers = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]

for num in numbers:
    if num % 2 != 0: # Check if the number is odd
        print(num)
```

Output:

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

1

3

5

7

9