PYTHON LAB 6

1.Write a python program to reverse a number using a while loop.

```
n=int(input("Enter the Number:"))
 i=n
while(i>=1):
   print(i)
   i-=1
```

<---------- OUTPUT ---------->

```
Enter the Number:10
10
9
8
7
6
5
4
3
2
1
```

2. Write a python program to check whether a number is palindrome or not?

```
n=int(input("Enter a Number:"))
temp=n;
rev=0;
while(n!=0):
```

```
    r=n%10
    rev=rev*10+r
    n=n//10
print("Reverse of number is",rev)
if(rev==temp):
    print("The is a Palindrome Number ")
else:
    print("The is not a Palindrome Number ")
```

<---------- OUTPUT ---------->

Enter a Number:12321

Reverse of number is 12321

The is a Palindrome Number

Enter a Number:12345

Reverse of number is 54321

The is not a Palindrome Number

3.Write a Program to check whether the given number is Armstrong or not.

```
def is_armstrong(num):
    num_str = str(num)
    num_digits = len(num_str)
    sum_of_powers = sum(int(digit) ** num_digits for digit in num_str)

    if sum_of_powers == num:
```

```
        return True
    else:
        return False
number = int(input("Enter a number: "))
if is_armstrong(number):
    print(f"{number} is an Armstrong number.")
else:
    print(f"{number} is not an Armstrong number.")
```

<---------- OUTPUT ---------->

```
Enter a number: 1234
1234 is not an Armstrong number.

Enter a number: 153
153 is an Armstrong number.
```

4.Write a Program to find the factorial of a number.

```
n=int(input("Enter the number:"))
f=1;
for i in range(1,n+1):
    f*=i
print("Factorial of", n ,"numbers is :",f)
```

<---------- OUTPUT ---------->

```
'''
Enter the number:6
Factorial of 6 numbers is : 720
```

5.Accept numbers using input() function until the user enters 0. If user input 0 then break the while loop and display the sum of all the numbers.

```
total_sum = 0
while True:
    number = int(input("Enter a number (0 to stop): "))
    if number == 0:
        break
    total_sum += number
print("The sum of all the numbers entered is:", total_sum)
```

<---------- Output ---------->

```
Enter a number (0 to stop):  5
Enter a number (0 to stop): 4
Enter a number (0 to stop): 3
Enter a number (0 to stop): 2
Enter a number (0 to stop): 1
Enter a number (0 to stop): 0
The sum of all the numbers entered is: 15
```