

PYTHON LAB 5

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