LAB-6

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

Program:

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

reversed\_number = 0

while number > 0:

    reversed\_number = reversed\_number \* 10 + number % 10

    number //= 10

print("Reversed number:", reversed\_number)

Result:

Enter a number: 234

Reversed number: 432

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

Program:

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

original\_number = number

reversed\_number = 0

# Reverse the number

while number > 0:

    reversed\_number = reversed\_number \* 10 + number % 10

    number //= 10

# Check if the original number is equal to the reversed number

if original\_number == reversed\_number:

    print("The number is a palindrome.")

else:

    print("The number is not a palindrome.")

Result:

Enter a number: 121

The number is a palindrome.

**3.Write a python program finding the factorial of a given number using a while loop.**

Program:

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

factorial = 1

current = number

while current > 0:

    factorial \*= current

    current -= 1

print(f"The factorial of {number} is {factorial}.")

Result:

Enter a number: 22

The factorial of 22 is 1124000727777607680000.

**4.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.**

**Program:**

total\_sum = 0

while True:

    number = int(input("Enter a number (enter 0 to stop): "))

    if number == 0:

        break

    total\_sum += number

print("The sum of all entered numbers is:", total\_sum)

**Result:**

Enter a number (enter 0 to stop): 3

Enter a number (enter 0 to stop): 3

Enter a number (enter 0 to stop): 5

Enter a number (enter 0 to stop): 7

Enter a number (enter 0 to stop): 0

The sum of all entered numbers is: 18