

# PYTHON LAB - 6

## While loop

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

```
Number = int(input("Enter a number : ")) #Takes the
input
print("The given number is",Number) #prints the
original number
Reverse = 0 #Assigning value to variable reverse
while(Number!=0): #Checks if number is not to 0
    Remainder = Number % 10 #Gives the remainder
    Reverse = (Reverse * 10)+Remainder #Multiplies the
reverse value with 10 and then adds remainder value
    Number = Number // 10 #Gives the dividend value
print("The reversed number is",Reverse ) #prints the
reversed number
```

### OUTPUT

```
Enter a number : 67239
The given number is 67239
The reversed number is 93276
```

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

```
Number = int(input("Enter a number : ")) #Takes the input
Original_number = Number
Reverse = 0 #Assigning value to variable reverse
while (Number!=0): #Checks if number is not to 0
    Remainder = Number % 10 #Gives the remainder
    Reverse = (Reverse * 10)+Remainder #Multiplies the reverse value with 10 and then adds remainder value
    Number = Number // 10 #Gives the dividend value
if (Reverse == Original_number): #checks if number is reversed number is equal to given number
    print(f"{Original_number} is a palindrome.")
#prints statement if condition is true
else:
    print(f"{Original_number} is not a palindrome.")
#prints statement if condition is false
```

### OUTPUT

```
Enter a number : 4554
4554 is a palindrome.
```

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```
Enter a number : 9379
9379 is not a palindrome.
```

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

```
Num = int(input("Enter a number : ")) #Takes user
input
i=1 #initializing I
fact = 1 #Setting Fact value to 1
while(i<=Num): #checks conditions
    fact = fact * i #multiplying fact with i
    i+=1 #increasing i value by 1
print(f"The factorial of {Num} is {fact}") #printing
result value
```

### OUTPUT

```
Enter a number : 9
The factorial of 9 is 362880
```

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.

```
Sum = 0 #initializing Sum value to 0
while(True):
    Num = int(input("Enter a number : ")) #Take user
    input
    if(Num == 0): #Checks if number is equal to 0
        break #if number is equal to 0, breaks the loop
    Sum = Sum + Num #Adds all entered number
print("The sum of all entered numbers is",Sum)
#Prints the value
```

### OUTPUT

```
Enter a number : 4
Enter a number : 7
Enter a number : 9
Enter a number : 2
Enter a number : 8
Enter a number : 0
The sum of all entered numbers is 30
```