PYTHON LAB 6:

WHILE LOOP

SUMANTH S

AF0363570

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

```python
num = int(input("Enter a number to be reversed :")) # taking user input num
rev_number = 0 # initializing rev_num to 0

while num != 0: # checking condition num is greater than zero using while loop to
itteration
  reminder = num % 10 # remainder of the num divided by 10 is stored in
reminder variable
  rev_number = rev_number * 10 + reminder # remainder is added to variable
rev_number after multiplying it to 10
  num = num // 10 # num is divided by 10
print("Reversed number : ",rev_number) # Displaying the reverse number
```

OUTPUT:

```
Enter a number to be reversed :1005
Reversed number :  5001
```

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

```python
num = 10020001   #intializing a number
rev = int(str(num)[::-1]) # converting the number into string formate using string
function to reverse the number
if num == rev:        # checking the condition number is equals to reverse
  print("The given Number ",num," is palindrome") # If condition is true then
Displaying it is palindrome
else:
  print("The given Number ",num, " is Not palindrome") # If condition is false then
Displaying it is not palindrome
```

OUTPUT:

```
The given Number  10020001  is Not palindrome
```

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

```python
number = 5 # initialization
fact =1 # initialization 1 to fact variable
while number > 0: # using while loop to iteration
  fact = fact * number # formula to find factorial
  number-=1 # decrement to -1
print("Factorial of 5 is ",fact) # displaying factorial value
```

OUTPUT:

```
Factorial of 5 is  120
```

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.

```python
sum = 0 # initialization sum value to zero
while True: # checking while condition
    number = int(input("Enter a number :")) #taking user input
    if number == 0: # checking if the number is 0
      break # stopping while loop
    sum = sum + number # formula to sum the numbers
    print("The sum is :", sum) # displaying sum
```

OUTPUT:

```
Enter a number :5
The sum is : 5
Enter a number :4
The sum is : 9
Enter a number :6
The sum is : 15
Enter a number :0
```