

ASSIGNMENT-4

1. Calculate the sum of digits of a number input by the user?

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

```
sum=0
```

```
while num>0:
```

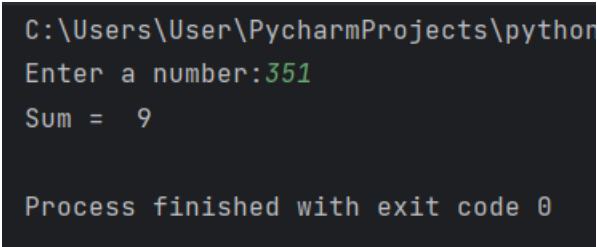
```
    digit=num%10
```

```
    sum+=digit
```

```
    num//=10
```

```
print("Sum = ",sum)
```

OUTPUT



```
C:\Users\User\PycharmProjects\python
Enter a number:351
Sum = 9

Process finished with exit code 0
```

2. Write a python program that calculates the factorial of a given positive integer using while loop?

```
fact=1
```

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

```
i=1
```

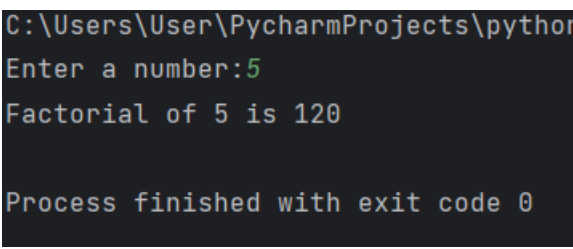
```
while i<=num:
```

```
    fact*=i
```

```
    i+=1
```

```
print("Factorial of %d is %d"%(num,fact))
```

OUTPUT



```
C:\Users\User\PycharmProjects\python
Enter a number:5
Factorial of 5 is 120

Process finished with exit code 0
```

3. Create a python program that checks if a given number is palindrome using while loop?

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

```
temp=num
```

```
rev=0
```

```
while(num!=0):
```

```
    rem=num%10
```

```
    rev=rev*10+rem
```

```
    num//=10
```

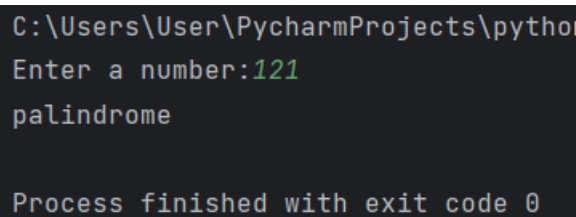
```
if temp==rev:
```

```
    print("palindrome")
```

```
else:
```

```
    print("Not palindrome")
```

OUTPUT



```
C:\Users\User\PycharmProjects\pytho
Enter a number:121
palindrome

Process finished with exit code 0
```

4. write a program to enter the number till the user enter zero and at the end it should print sum of positive number and negative number?

```
positive=0
```

```
negative=0
```

```
num=1
```

```
while num!=0:
```

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

```
    if num>=0:
```

```
        positive+=num
```

```
    else:
```

```
        negative+=num
```

```
print("Sum of positive number:",positive)
```

```
print("Sum of negative number:",negative)
```

OUTPUT

```
C:\Users\User\PycharmProjects\python
Enter a number:12
Enter a number:45
Enter a number:-9
Enter a number:-3
Enter a number:-1
Enter a number:0
Sum of positive number: 57
Sum of negative number: -13

Process finished with exit code 0
```

5. Reverse of a string input by the user?

```
num=int(input("Enter a number:"))
rev=0
while(num>0):
    rem=num%10
    rev=rev*10+rem
    num//=10
print("Reverse of a number:",rev)
```

OUTPUT

```
C:\Users\User\PycharmProjects\python
Enter a number:358
Reverse of a number: 853

Process finished with exit code 0
```

6. Implement simple calculator that performs addition, subtraction, multiplication and division?

```
print("SIMPLE CALCULATOR")

while True:
```

```
choice=input("Enter your choice: ")
print(" 1. Addition \n 2. Subtraction \n 3. Multiplication \n 4. Division \n")
if choice=='1':
    n1=int(input("Enter the first number: "))
    n2=int(input("Enter the second number: "))
    sum=n1+n2
    print("sum = ",sum)
    break
elif choice=='2':
    n1=int(input("Enter the first number: "))
    n2=int(input("Enter the second number: "))
    sub=n1-n2
    print("Sub = ",sub)
    break
elif choice=='3':
    n1=int(input("Enter the first number: "))
    n2=int(input("Enter the second number: "))
    mul=n1*n2
    print("Multiplication = ",mul)
    break
elif choice=='4':
    n1=int(input("Enter the first number: "))
    n2=int(input("Enter the second number: "))
    div=n1/n2
    print("Division = ",div)
    break
else:
    print("invalid choice")
    exit()
```

OUTPUT

```
C:\Users\User\PycharmProjects\python_cla
SIMPLE CALCULATOR
Enter your choice: 3
  1. Addition
  2. Subtraction
  3. Multiplication
  4. Division

Enter the first number: 4
Enter the second number: 5
Multiplication =  20

Process finished with exit code 0
```