* **Python Homework (22/02/25)**
* **Name: Sharvari Anand Bhondekar**
* **Mail Id:** [**sharvaribhondekar23@gmail.com**](mailto:sharvaribhondekar23@gmail.com)
* **Group 3**

1. **Find the factorial of a given number**

Code:

num\_1 = int(input("Enter a number: "))

fact = 1

if(num\_1<0):

    print("Please enter a positive number.")

elif(num\_1 == 0):

    print(f"Factorial of {num\_1} is 1")

else:

    for i in range(1, num\_1 + 1):

        fact \*= i

    print(f"The factorial of {num\_1} is {fact}")

1. **Reversing the integer number**

Code:

num\_2 = int(input("Enter a number: "))

negative = num\_2<0

reversed\_num = 0

num\_2 = abs(num\_2) #absolute value is avoid negative nos as below I have kept a condition of positive no while num\_2>0: loops can have neg nos.

while num\_2>0:

    digit = num\_2 % 10

    reversed\_num = reversed\_num\*10 + digit

    num\_2//=10 #Removes the last digit num\_2 = num\_2//10 (Integer division)

if negative :

    reversed\_num = - reversed\_num

print("Reversed number =", reversed\_num)

1. **Print elements from a given list present at odd index positions.**

Code:

Names = [ "Aparna","Sharvari", "Pawan", "Omm", "Shruti", "James", "Sumit"]

for i in range(len(Names)):

    if i%2 != 0:

        print(Names[i])

# print(Names[1::2]) #List slicing

1. **Calculate the cube of all numbers from 1 to a given number**
2. num = int(input("Enter a number: "))
3. if (num<=0):
4. print("Please enter a positive number")
5. else:
6. for i in range(1,num+1):
7. print(i\*\*3)
8. # print(pow(num,3)) #If cube of any number
9. **Find the sum of the series up to n terms**

Code:

num\_3 = int(input("Enter a number: "))

summation = 0

for i in range(1, num\_3+1):

    summation = (num\_3 \* (num\_3 + 1)) // 2 #formula and execution time will be reduced

print(f"The sum of the series up to {num\_3} terms is {summation}")