Task 3 :

**Write a complete python program that includes a function that takes a list as an argument and returns the counts of odd and even numbers. The program should print the counts in a proper message. You may use the below list to test your code.**

**numbers= [1, 2, 3, 4, 5, 6, 7, 8, 9]**

def count(numbers):

    even=0

    odd=0

    for i in numbers:

        if i%2==0:

            even +=1

        else:

            odd +=1

    return even,odd

numbers=[1,2,3,4,5,6,7,8,9]

even\_count,odd\_count=count(numbers)

print('Number of even digits:',even\_count)

print('Number of odd digits:',odd\_count)

**Write a function called validate\_password that takes a password as an argument and checks if it meets the following criteria:**

**1-At least 8 characters long**

**2-Contains at least one uppercase letter, one lowercase letter, and one digit**

def validate\_password(paswd):

    digit = False

    lower = False

    upper = False

    for i in paswd:

        if i.isdigit():

            digit = True

        elif i.islower():

            lower = True

        elif i.isupper():

            upper = True

    if len(paswd) >= 8 and digit and lower and upper:

        return True

    else:

        return False

password = input('Enter your password:\n')

if validate\_password(password):

    print('Valid password')

else:

    print('Invalid password')

**Write a program that reads a text file called "text.txt" and counts the number of occurrences of each word in the file. The program should output a list of words and their corresponding counts in alphabetical order.**

from collections import Counter

task3=open(r'C:\Users\Youssif\OneDrive\Desktop\text.txt.txt','r')

list1=[]

for line in task3:

    word=line.split()

    list1 +=word

list1=sorted(list1)

print(Counter(list1))

**#output:**

**Counter({'Ahmed': 2, 'Reem': 2, 'Yahia': 2, 'Zein': 2, 'Mohamed': 1, 'Sohaib': 1, 'Youssef': 1})**