WEEK 7 LAB

Exercise 1: Write a Python program to copy the contents of a file to another file .

Exercise 2: Write a Python program to count the number of lines in a text file

Exercise 3: Write a Python program to read last n lines of a file

Exercise 4: Write a Python program to append text to a file and display the text.

Exercise 5: Write a Python program to generate 26 text files named A.txt, B.txt, and so on up to Z.txt

Exercise 6:

Recall the Shape Module that we have studied in Chapter 6, and that you have implemented in the corresponding lab assignment.

*In that module, you implemented classes to hold points, namely points in 2D -* ***Point,*** *and points in 3D -* ***Point3D****.*

In the same module, you should now create a new class:

1. named **PointList,** to hold (2D and 3D) points; you can use a list as the single data attribute of the class, which should be defined as a private attribute;

2. in which you implement a **read** property and a **write** property to provide access to the list of points and to set the value of that list, respectively; in the write property you should implement an assertion to check that the list being assigned is indeed a list of (2D or 3D) points;

3. in which you implement an **export** method and an **import** method to save the list of points to a  file and to read the list of points from a  file, respectively. You should use an implementation based on **pickles.**

Experiment creating your own points, including them in a list, and saving/reading it from a file using the provided functionality.

4. Extend the **PointList** class you implemented in the previous exercise with export/import methods that save/read the list of points to/from **text**  files.

Test each of the methods you implement.