CIS 1250 Python Program – POINTS IN a File

# Turn in Requirements:

5 pts. Name your project LastnameP11, such as GarnerP11.

# Program Requirements:

1. 5 pts. Write the file name, your name, email address and purpose of the program at the top of your library source code in a comment.

# GarnerP11

# Programmer: Rob Garner

# EMail: Rgarner7 @cnm.edu

# Purpose: demonstrate how to define a class

1. 5 pts. Add comments as appropriate. Be sure that your program output is neatly presented to the user. Add documentation comments to your functions.
2. You are going to change your last program so that instead of only working with two points you are going to read in a list of five or more points from a file.
3. Create a file that has the data for at least five points. You can use notepad to make your file.
4. Each line in the file should have each point’s lat and lon coordinates and a description. It could look like this:

100.200, 123.456, Main Campus

120.33, 142.345, Montoya

153.23, 322.345, Rio Rancho

133.23, 143.345, STEMULUS Center

153.42, 122.345, ATC

1. In the main part of your program do the following:
   1. Create a list that you will use to collect the points. Something like pointList = [].
   2. Read points in from a file.
   3. As you read lat lon and description from the file, use those values to create a point and add that point to a List. Something like:

newPoint = GeoPoint(lat, lon, description)

pointList.append(newPoint)

* 1. Inside the “Do another (y/n)?” loop do the following:
     1. Ask the user for their location.
     2. Create a point to represent the user’s location.
     3. Iterate through the point list and find the closest point.
     4. Tell the user which point they are closest to in this format:

You are closest to <description> which is located at <point’s lat, lon coordinates>

* + 1. Ask “Do another (y/n)?” and loop if they respond with ‘y’