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CIT 260 – 04

W08 Exercise: Assignment 9 (program 9.1)

Task: Design a class named MyPoint that represents a point in 2-dimensional space. Your class should contain the following:

1. Two data fields **x** and **y**, that represent the x-coordinate and the y-coordinate of the point.
2. Getter and setter methods for **x** and **y**.
3. A no-arg constructor that creates a default point at (0,0).
4. A parameterized constructor that creates a point at the designated x and y coordinate.
5. A member method named distance that calculates and returns the distance between this MyPoint object and another point that is specified by its x- and y-coordinates.
6. A member method named distance that calculates and returns the distance between this MyPoint object and another object of the MyPoint class.
7. A static method named distance that takes two objects of the MyPoint class as parameters, and calculates and returns the distance between the two of them.
8. Create a UML diagram that documents your class design Submit your class diagram with your assignment. The preferred format is a .PDF file

UML diagram:

MyPoint
-x: int -y: int
+getX(): int +setX(:int): void +getY(): int +setY(:int): void +MyPoint() +MyPoint(:int, :int) +distance(:int, :int): double +distance(:MyPoint): double +distance(:MyPoint, :MyPoint): double