BIL 142 LAB 3

Design 2 class “LineSegment” and “Point” classes.
For “Point” class which has **2 private member fields** which are x and y coordinates of the point.

- Write a default constructor(assign 0 to coordinates) .
- Write another constructor which takes **all 2 member fields** as input parameters.

For “LineSegment” class which has **2 private member fields** of “Point” class which are two end points of the line segment.

- Write a default constructor.
- Write another constructor which takes **4 integer** as input parameters (4 coordinates).

Member Fields
For “Point” class:

- x coordinate
- y coordinate

For “LineSegment” class:

- First end point(**“Point” class**)
- Second end point(**“Point” class**)

Member Functions
For “Point” class:

- Getter Setter Functions for all Fields.

For “LineSegment” class:

- Setter Functions for all Fields(takes x and y coordinates as input parameters).

Implement
For “LineSegment” class overload operators:

- Overload '+' operator by either as a stand-alone function or as a member function. This function will return a “LineSegment” class (f1) whose “Point”s are addition of the coordinates “Points of other two classes (f2 and f3)
  Example:
  - f1 has (3,4) for first point and (2,1) for second point.
  - f2 has (2,2) for first point and (7,3) for second point.
  - After f3=f1+f2, f3 has (5,6) for first point and (9,4) for second point

- Overload '<<' operator so that it can output information of “LineSegment” class.
  Example:
    - For f1 has (3,4) for first point and (2,1) for second point.
      The output of **cout<<f1;**
      (3,4)--(2,1)

Important: Add comments to your code and at the top of your code note which compiler you’re using in a comment
Suggestion: Writing a main function which tests constructors and all functions can be useful.

Upload your codes as zip file to ‘uzak’.(deadline 21:10)