

**North South University**  
**Department of Electrical and Computer Engineering**  
**CSE 215L: Programming Language II Lab**

**Lab – 7: Class & Object**

**Objective:**

- To learn about class and objects
- To learn to implement a class using UML

**Task:**

Implement the following classes, each on a separate file:

| Point                                                                                                                                                                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| - x: int<br>- y: int                                                                                                                                                               |
| + Point(x: int, y: int)<br>+ Point()<br>+ getX(): int<br>+ getY(): int<br>+ setX(x: int): void<br>+ setY(y: int): void<br>+ toString(): String<br>+ distance(point: Point): double |

| Line                                                                                                                                                                                                             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| - start: Point<br>- end: Point                                                                                                                                                                                   |
| + Line(start: Point, end: Point)<br>+ Line(x1: int, y1: int, x2: int, y2: int)<br>+ getStart(): Point<br>+ getEnd(): Point<br>+ setStart(start: Point): void<br>+ setEnd(end: Point): void<br>+ length(): double |

Now create a Line object and invoke the length() method.