



**Faculty : Mr. Tarek Mizan**

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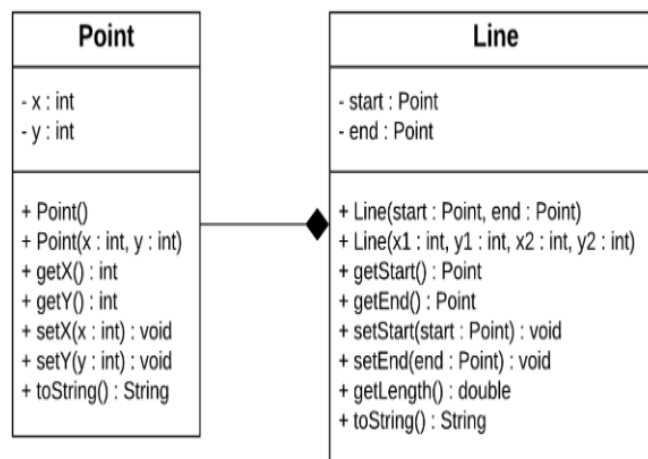
Class Timing: ST 1:00 PM – 2:30 PM (LIB-611)

Topic: Composition

## Objective

1. To define a new class with Composition
2. To reuse existing classes

**Composition** There are two ways to reuse existing classes, namely, composition and inheritance. With composition, we define a new class, which is composed of existing classes. As an example of reusing a class via composition, suppose that we have an existing class called Point, defined as shown in the below class diagram. Suppose that we need a new class called Line, we can design the Line class by re-using the Point class via composition. We say that "A line is composed of two points", or "A line has two points". Composition exhibits a "has-a" relationship.





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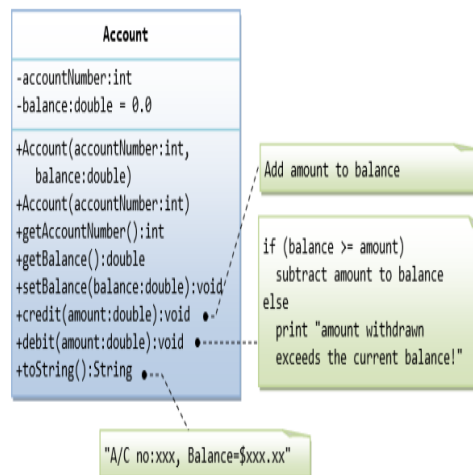
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Topic: Loops, Jump

### Tasks:

1. Implement the following class and test its methods.



2. Implement the Line class using Point object stated in previous page and test its methods.