

## 1. Session 4: Inheritance

### 2. Intended Learning Outcome:

- a. Will learn about one of the core concept of OOP – Inheritance.
- b. Will learn about inheritance implementation using Java.

### 3. Expected skills:

- can explain Inheritance and association.
- knows about multiple inheritance and can show inheritance in UML.
- can implement inheritance in code using extends keyword.
- knows how to use super.
- knows aggregation, association.
- knows what is static variable.

### Tools Required:

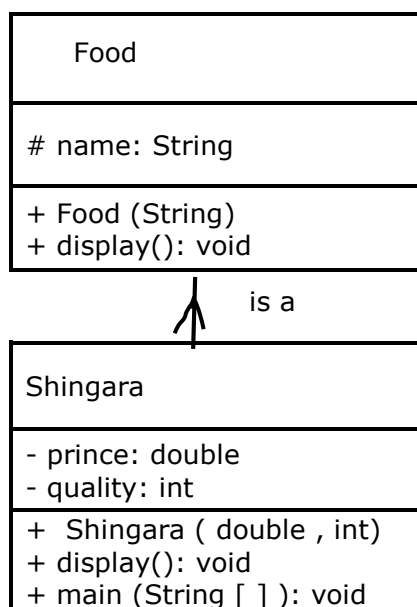
- a. JDK
- b. ECLIPSE / NETBEANS

### 4. Session Detail:

1. Teacher will give lecture on Inheritance and give multiple real life examples on them.
2. Teacher will draw some UML that implements Inheritance and tell the students to code them.
3. Teacher will explain super and extends keyword.
4. Teacher will show the difference between Aggregation and Association.
5. Teacher will explain what is class variable.

### 5. Post Lab Exercise:

- a. Implement following exercise.



## 6. Further Readings:

- a. <http://www.javatpoint.com/java-arraylist>
- b. <https://docs.oracle.com/javase/tutorial/java/landl/subclasses.html>
- c. <http://www.javaworld.com/article/2987426/core-java/java-101-inheritance-in-java-part-1.html>