

**Don Bosco Institute of Technology, Kurla(W)**  
**Department of Electronics and Tele-Communication Engineering**  
**ECL304 - Skill Lab: C++ and Java Programming**  
**Sem III**  
**2021-22**

<b>Lab Number:</b>	<b>10</b>
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**Title:**

1. Write a java program to implement Multiple Inheritance using Interfaces. Create an interface called Management with selectCandidate() method. Another interface called Department with allotSubject() method. Class called HOD will implements these two interfaces and define the methods and access them with valid objects.

**Learning Objective:**

Students will be able to implement multiple inheritance using Interface concepts

**Learning Outcome:**

- Understanding the abstraction concept and hiding of the unnecessary code using interfaces.

**Course Outcome:**

<b>ECL304.4</b>	1. Implement different programming applications using packaging .
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**Theory:**

- What is complete abstraction and how is it achieved in JAVA? Solution:-

**Data abstraction** is a method where essential elements are displayed to the user and trivial elements are kept hidden.

In Java, abstraction is achieved by using the **abstract** keyword for classes *and* interfaces. In abstract classes, we can have abstract methods as well as concrete methods.

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□ Explain multiple abstraction and how is it performed in Java? Solution:-

**Abstraction** is the concept of object-oriented programming that “shows” only essential attributes and “hides” unnecessary information. The main purpose of abstraction is hiding the unnecessary details from the users. Abstraction is selecting data from a larger pool to show only relevant details of the object to the user. It helps in reducing programming complexity and efforts. It is one of the most important concepts of OOPs.

Q1)

**Output:**

```
Enter student name => ABC
Enter ID => 123
```