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

Lab Number:	**10**
Student Name:	**DISHA MAGGU**
Roll No:	**09**

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:

ECL304.4	1. Implement different programming applications using packaging.

Theory:

- **What is complete abstraction and how is it achieved in Java?**
  Complete abstraction is a way of hiding important details completely from the user. In Java we cannot perform Multilevel Inheritance, but we can implement Interface in Java. By using interface, we can achieve complete abstraction

- **Explain multiple abstraction and how is it performed in Java?**
  Java does not support multiple inheritance for classes. This means that a class cannot extend more than one class. A class can implement one or more interfaces, which has helped Java get rid of the impossibility of multiple inheritance. The extends keyword is used once, and the parent interfaces are declared in a comma separated list. It is basically a way to achieve complete abstraction.

Faculty: Ms. Deepali Kayande

Algorithm:

1. Start
2. Create interface - Management and declare select candidate() in it
3. Create interface - Department and declare allotsubject() in it
4. Create a class HOD to inherit interface management and department and to take input of details
5. Create the object of the HOD class in main function and call the methods.
6. Print the result
7. End

Program:

```
import java.util.*;

interface Management
{
   void selectCandidate();
}

interface Department
{
   void  allotSubject();
}

class HOD implements Department, Management
{
   String Candidate;
   String Subject;
   void getdata()
   {
      Scanner in=new Scanner(System.in);
      System.out.println("Enter Candidate name:");
      Candidate=in.nextLine();
      System.out.println("Enter Subject:");
      Subject=in.next();
   }
   public void selectCandidate()
   {
      System.out.println("Candidate Name : "+Candidate );
```

```
    }
    public void allotSubject()
    {
        System.out.println("Subject Alloted : "+Subject);
    }
}

class Interface
{
    public static void main (String[] args)
    {
        HOD ob = new HOD();
        ob.getdata();
        ob.selectCandidate();
        ob.allotSubject();
    }
}
```

Input Given: **Name:** Disha Maggu
Subject: Chemistry

Output: