**75lab22\_Inheritance**



**Step 1:** Create a new file **Hostelite.java** and define the ***Hostelite***class which extends the

**Student** class as per the above class diagram

**Step 2:** Implement the constructor of ***Hostelite***class and invoke the constructor of ***Student***

class using the ***super*** keyword

**Step 3:** Compile the **Student.java** and **Hostelite.java** file and fix the errors if any

**Step 4:** Create a new file **DayScholar.java** and define the ***DayScholar***class which extends the**Student** class as per the above class diagram

**Step 5:** Implement the constructor of ***DayScholar***class and invoke the constructor of ***Student***class using the ***super*** keyword

**Step 6:** Compile the **DayScholar.java** file and fix the errors if any

**Step 7:** Create a new file **DemoInherit.java** containing the ***DemoInherit***class with the main

Method

**Step 8:** In the main method:

a. Create a reference variable of ***Hostelite***class and instantiate the same with the

following values using the parameterized constructor as given below

**Table 12**

**Instance Variable Value to be initialized**

hostelName Aaradhya

roomNumber 105

roomType double

studentName Tommy

qualifyingExamMarks 75.6f

residentialStatus H

branchName CSE

yearOfEngg 4

addressLine 8231 carpenter pkwy

city Irving

state Texas

zip 75038

(Hint: Create reference variables of Address class whenever an address needs to be stored)

b. Invoke the ***validateStudentName()*** method. If the name is valid, invoke the

***validateBranchName()*** and ***validateExamMarks()*** method. If both are valid,

invoke the corresponding getter methods and display the following details :

Student Id :\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Student Name :\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Qualifying Marks :\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Residential Status :\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Current Year of Engineering :\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Branch Name :\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Permanent Address :\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Hostel Name :\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Room Number :\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Room Type :\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c. Create a reference variable of ***DayScholar***class and instantiate the same with the

following values:

**Table 13**

**Instance Variable Value to be initialized**

**For Residential Address**

addressLine 123 Greenway Dr

City Irving

state Texas

Zip 75038

distance 10

studentName Timmy

qualifyingExamMarks 80.0f

residentialStatus D

branchName CSE

yearOfEngg 4

**For Permanent Address**

(Hint: Create reference variables of Address class whenever an address needs to be stored)

d. Invoke the ***validateStudentName()*** method. If the name is valid, invoke the

***validateBranchName()*** and ***validateExamMarks()*** method. If both are valid,

invoke the corresponding getter methods and display the following details :

Student Id :\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Student Name :\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Qualifying Marks :\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Residential Status :\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Current Year of Engineering :\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Branch Name :\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Residential Address :\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Distance :\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Permanent Address :\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**At the end of the assignment you would have the following files:**

Student.java

Hostelite.java

DayScholar.java

Address.java

DemoInherit.java