

# Assignment Day6:

## Question 1:

Create a class Student and the sub classes DayScholar and Hosteller,

### Student:

Instance Variables:

**studId : integer,**

**studName :String,**

**examFee:double**

Methods:

**displayDetails(): void,**

**payFee() :double**

Provide suitable constructors

### DayScholar :

Instance Variables :

**transportFee: double**

Methods:

### Hosteller :

Instance Variables:

hostelFee: double

Provide suitable constructors

Create a general class "RunClass". In this create two objects for each DayScholar and Hosteler classes. Invoke payFee() method with suitable amount and obtain the remaining amount to be paid.

## Question 2:

SNMR College of Engineering and Technology wants to create an application to store their students details as well as the details of hostellers.

In case of any changes to be made to the attributes, admin can update the details like room number and phone number of the hosteler.

Develop a program to implement this scenario.

Create a public class Student with following fields:

studentId: integer

name: String

departmentId: integer

gender :String

phone: String

Create a public class Hosteller as a child class of Student class with following fields:

String hostelName

int roomNumber

Make this class inherit the Student class, as it holds all the properties of Student.

Use appropriate public getters and setters for both the classes.

Write a class Main with the main function.

In Main class get the input of the hosteller using the method :

public static Hosteller getHostellerDetails().

Invoke this method from the main method and then modify the room number and phone number, if needed.

**Sample Input 1:**

**Enter the Details:**

**Student Id:**

**1**

**Student Name:**

**John**

**Department Id:**

**101**

**Gender:**

**Male**

**Phone Number:**

**9876543210**

**Hostel Name**

**YMCA**

**Room Number**

**10**

**Modify Room Number(Y/N)**

**Y**

**New Room Number**

**11**

**Modify Phone Number(Y/N)**

**Y**

**New Phone Number 9876543121**

**Sample Output 1:**

**The Student Details: 1 John 101 Male 9876543121 YMCA 11**

**Sample Input 2:**

**Enter the Details:**

**Student Id**

**2**

**Student Name**

**John Paul**

**Department Id**

**112**

**Gender**

**Male**

**Phone Number**

**9885526536**

**Hostel Name**

**YMBA**

**Room Number**

**5**

**Modify Room Number(Y/N)**

**N**

**Modify Phone Number(Y/N)**

**N**

**Sample Output 2:** The Student Details: 2 John Paul 112 Male 9885526536 YMBA 5

**Note: Override the toString() method to display the output.**

## **Question 3:**

Create a Class Bank with the following fields:

branchName: String

ifscCode: String

and a non-static method:

displayDetails(): void

The above method will display the details of the bank(branchName, ifscCode)

Create 2 child classes of the above Bank class: AxisBank, ICICIBank

with the following fields

rateOfInterest: double

In both the classes override the displayDetails() method to display their details(branchName, ifscCode, rateOfInterest )

Inside the Axis Bank define another method :

getCreditCard(): void

This method will simply print **“Get the Credit Card from the Axis bank”**

Create a Demo class and define the following method:

```
public static Bank getBank(String bank);
```

implement the above method such as if we supply “axis” then it should return Axis bank object and if supply “icici” then it should return ICICI bank object and if we supply any invalid value then it should return null.

**Note: returned bank object should have all the details.**

Call the above method from the main method of Demo class by taking input from the user and

print the Bank details by calling displayDetails() method. and if the returned bank object is Axis bank then call the getCreditCard() method.

## **Question 4:**

**What is the use of 'this' and 'super' keyword in java explain with example.**