Post-Experiment Exercise

Code:

```
// Author - Ajaykumar Nadar

class Employee {
  int employeeId;
  String employeeName;

  Employee(int employeeId, String employeeName) {
    this.putData(employeeId, employeeName);
  }
  Employee(){
    System.out.print("Waring: No Employee data found\n");
    System.out.print("Set Employee data using .putData() method\n");
  }

  void getData() {
    System.out.print("Emp Id: " + employeeId + "\nEmp Name: " +
employeeName +"\n");
  }

  void putData(int employeeId, String employeeName) {
    this.employeeId = employeeId;
    this.employeeName = employeeName;
  }
}
class Salary extends Employee {
  float basicPay;
  float HRA;
  float DA;
  float CLA;

  Salary (int employeeId, String employeeName, float basicPay, float
HRA, float DA, float CLA) {
    super(employeeId, employeeName);
    this.basicPay = basicPay;
    this.HRA = HRA;
    this.CLA = CLA;
    this.DA = DA;
  }
  Salary (float basicPay, float HRA, float DA, float CLA) {
    this.basicPay = basicPay;
    this.HRA = HRA;
    this.CLA = CLA;
    this.DA = DA;
```

```
  }

  void calculateSalary(){
    float gross_sal = basicPay + DA + HRA + CLA;
    getData();
    System.out.print("Gross Salary: " + gross_sal);
  }
}
class Main {
  public static void main(String[] args) {
    Salary emp1 = new Salary(105, "Ajaykumar Nadar", 1110, 111110, 10,
10);
    emp1.calculateSalary();
  }
}
```

Output:

```
PS C:\Users\Ajay kumar\Desktop\SEIT-B\Java Practical\4\q.3> javac Main.java
PS C:\Users\Ajay kumar\Desktop\SEIT-B\Java Practical\4\q.3> java Main
Emp Id: 105
Emp Name: Ajaykumar Nadar
Gross Salary: 112240.0
PS C:\Users\Ajay kumar\Desktop\SEIT-B\Java Practical\4\q.3>
```

1. Create a class Book and define a display method to display book information. Inherit Reference_Book and Magazine classes from Book class and override display method of Book class in Reference_Book and Magazine classes. Make necessary assumptions required.

Code:

```
// Author - Ajaykumar Nadar

class Book {
    String title;
    String author;
    int price;

    void display() {
        System.out.println("Book details:");
        System.out.println("\tName: " + title);
        System.out.println("\tAuthor: " + author);
        System.out.println("\tPrice: " + price + "\n");
    }
}

class Reference_Book extends Book {
    Reference_Book() {
        title = "Java Programming";
        author = "E Balaguruswamy";
        price = 299;
    }
}
class Magazine extends Book {
    Magazine() {
        title = "Suffering are Blessing";
        author = "Bianca Noronha";
        price = 100;
    }
}
public class Main {
    public static void main(String[] args) {
        Reference_Book refBook = new Reference_Book();
        Magazine magBook = new Magazine();

        System.out.println("Reference Book:");
        refBook.display();

        System.out.println("Magazine:");
        magBook.display();
    }
}
```

Output:

```
PS C:\Users\Ajay kumar\Desktop\SEIT-B\Java Practical\4\q.1> javac Main.java
PS C:\Users\Ajay kumar\Desktop\SEIT-B\Java Practical\4\q.1> java Main
Reference Book:
Book details:
        Name: Java Programming
        Author: E Balaguruswamy
        Price: 299

Magazine:
Book details:
        Name: Suffering are Blessing
        Author: Bianca Noronha
        Price: 100

PS C:\Users\Ajay kumar\Desktop\SEIT-B\Java Practical\4\q.1>
```

ii. Create a Teacher class and derive Professor and Associate_Professor class from Teacher class. Define appropriate constructor for all the classes. Also define a method to display information of Teacher. Make necessary assumptions as required.

Code:

```
// Author : Ajaykumar Nadar

class Teacher {
    int eid;
    String name;
    int salary;
    int yearsOfService;
    String subject;
    String designation;

    void display(){
        System.out.printf("Employee id: %d\nName: %s\nSalary: %d\nYears
of Service: %d\nSubject: %s\nDesignation: %s\n\n", eid, name, salary,
yearsOfService, subject, designation);
    };
}
class Professor extends Teacher {
    Professor(int eid,String name,int salary,int yearsOfService,String
subject) {
        this.eid = eid;
        this.name = name;
        this.salary = salary;
        this.yearsOfService = yearsOfService;
        this.subject = subject;
        this.designation =  "Professor";
    }
}
class Associate_Professor extends Teacher {
    Associate_Professor           (int eid,String name,int salary,int
yearsOfService,String subject) {
        this.eid = eid;
        this.name = name;
        this.salary = salary;
        this.yearsOfService = yearsOfService;
        this.subject = subject;
        this.designation =  "Associate Professor";
    }

}
class Main {
    public static void main(String[] args) {
```

```
        Professor professor = new Professor(12334, "Ajaykumar", 236723,
2, "Java");
        professor.display();
    }
}
```

Output:

```
PS C:\Users\Ajay kumar\Desktop\SEIT-B\Java Practical\4\q.2> javac Main.java
PS C:\Users\Ajay kumar\Desktop\SEIT-B\Java Practical\4\q.2> java Main
Employee id: 12334
Name: Ajaykumar
Salary: 236723
Years of Service: 2
Subject: Java
Designation: Professor

PS C:\Users\Ajay kumar\Desktop\SEIT-B\Java Practical\4\q.2>
```