LEADING UNIVERSITY, SYLHET

Dept. of Computer Science & Engineering

An Assignment on
Topic

Course Code: CSE-2214
Course Title: Object Oriented Programming Sessional

Submitted To:

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```java
public class Book {
    String book_title;
    String author;
    int number_of_pages;
    int book_price;
    String book_publication;

    void showInfo(){
        System.out.println("Book Title : "+book_title);
        System.out.println("Author : "+author);
        System.out.println("Price : "+book_price);
        System.out.println("Book Title : "+number_of_pages);
        System.out.println("Book Publication : "+book_publication);
    }
}
```

```java
public class Task2 {
    public static void main(String[] args){
        Book book1,book2,book3;
        book1 = new Book();
        book2 = new Book();
        book3 = new Book();
        book1.book_title = "JAVA for Beginner 3rd edition";
        book1.author = "By prof. David";
        book1.number_of_pages = 537;
        book1.book_price = 299;
        book1.book_publication = "Easy Coding Publications";

        book2.book_title = "Omega point 12th edition";
        book2.author = "By Humayun Ahmed";
        book2.number_of_pages = 122;
        book2.book_price = 128;
        book2.book_publication = "Shomoy Prokashoni";

        book3.book_title = "Digital Fortress 5th edition";
        book3.author = "By Dan Brown";
        book3.number_of_pages = 356;
        book3.book_price = 520;
        book3.book_publication = "St. Martin Press";
```

```
        System.out.println("Book1");
        book1.showInfo();
        System.out.println("Book2");
        book2.showInfo();
        System.out.println("Book3");
        book3.showInfo();

        System.out.println("Book1->"+book1);
        System.out.println("Book2->"+book2);
        System.out.println("Book3->"+book3);

        //Exchaning memory adress book3 to book1:
        book1 = book3;
        book1.book_title = "Digital Fortress 1st edition";
        book1.showInfo();

        System.out.println("Book1->"+book1);
        System.out.println("Book2->"+book2);
        System.out.println("Book3->"+book3);
    }
}
```

```java
public class BillCalculator {
    public double calculateBasicBill(double unit){
        double bill=0;
        if(unit<=199)
        {
            bill = unit * 1.2;
            if(bill<=100)bill=100;
        }
        else if(unit>199 && unit<400)
        {
            bill = unit*1.5;
        }
        else if(unit>=400 && unit<600)
        {
            bill = unit*1.8;
        }
        else
        {
            bill = unit*2;
        }
        return bill;
    }
```

```
public double calculateSurcharge(double basicBill){
    double surcharge = 0;
    if(basicBill>400)
    {
        surcharge = (basicBill*15)/100;
    }
    return surcharge;
}
public double getTotalBill(double unit){
    double totalBill = calculateBasicBill(unit);
    totalBill += calculateSurcharge(totalBill);

    return totalBill;
}
```

```java
public class Task_3 {
    public static void main(String[] args){
        BillCalculator thebill;
        thebill = new BillCalculator();
        System.out.println("Total Bill for 25 units = "+thebill.getTotalBill(25));
        System.out.println("Total Bill for 250 units = "+thebill.getTotalBill(250));
        System.out.println("Total Bill for 812 units = "+thebill.getTotalBill(812));
    }
}
```

The differences between Book class and BillCalculator class are-

Book Class	BillCalculator Class
1. There is only one method in this class and it is void return type.	1. There are actually 3 methods and these are with double return type.
2. This class is used for printing the book information.	2 . This class is all about calculation measuring the units.
3. When we execute the main method(task-2), it calls the showInfo from Book and prints the book information.	3 . In BillCalculator Class, it returns the total of amount based on the given units. When a method is called in this class, the 3 3 methods calculate the amount and return it.