

# JAVA LAB CAT

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  - For : JAVA LAB CAT
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## Question

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4. Create a class by name **JioCharges** with the following members.

Instance Members : Customer Name, Number of calls made to Jio, Number of calls made to other services and BillAmount .

i) number of calls field is declared as private. (Use read and write property to access it)

ii) A default constructor

iii) A parameterized constructor functions to initialize the instance members with the values specified by the user.

iv) A getData( ) method to read input details from the user.

v) A method **calculateBillAmount( )** to calculate the amount to be paid for the calls .

Note: Use the following information to calculate the amount to be paid

No. of Calls	Jio Rs./Call	Others Rs./Call
Between 0 and 200	1	2
Between 200 and 300	2	3
Above 300	5	6

Write a main class to test the program for an array of objects.

## Code

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```
import java.util.Scanner;

public class JioCharges {
    /** instance members */
    public String customerName;
    public int billAmount;
    private int callsMadeToJio;
    private int callsMadeToNonJio;

    /** getters and setters for callsMadeToJio */
```

```
public int getCallsMadeToJio() {
    return this.callsMadeToJio;
}

public void setCallsMadeToJio(int calls) {
    this.callsMadeToJio = calls;
}

/** getters and setters for callsMadeToNonJio */
public int getCallsMadeToNonJio() {
    return this.callsMadeToNonJio;
}

public void setCallsMadeToNonJio(int calls) {
    this.callsMadeToNonJio = calls;
}

/** default constructor to start a new account (part ii in question) */
JioCharges() {
    this.customerName = "New Customer";
    this.billAmount = 0;
    this.callsMadeToJio = 0;
    this.callsMadeToNonJio = 0;
}

/**
 * parametrized constructor to create new account with given details
(part iii
 * in question)
 */
JioCharges(String customerName, int callsToJio, int callsToNonJio) {
    this.customerName = customerName;
    this.callsMadeToJio = callsToJio;
    this.callsMadeToNonJio = callsToNonJio;
    this.billAmount = 0;
}

/** function to take input from user(part iv in question) */
public void getData() {
    Scanner handler = new Scanner(System.in);
    System.out.println("Enter the details about the user : ");
    System.out.print("Enter customer name : ");
    String customerName = handler.nextLine();

    System.out.print("Enter number of calls made to jio network : ");
    int toJio = handler.nextInt();

    System.out.print("Enter number of calls made to non jio network :
");
    int toNonJio = handler.nextInt();

    this.customerName = customerName;
    this.callsMadeToJio = toJio;
    this.callsMadeToNonJio = toNonJio;
}
```

```
        this.calculateBillAmount();
    }

    /** method to calculate bill based on given price (part v in question)
    */
    public void calculateBillAmount() {
        int totalBill;
        int totalCalls = this.callsMadeToJio + this.callsMadeToNonJio;

        if (totalCalls > 0 && totalCalls <= 200) {
            totalBill = 1 * this.callsMadeToJio + 2 *
this.callsMadeToNonJio;
        } else if (totalCalls > 200 && totalCalls <= 300) {
            totalBill = 2 * this.callsMadeToJio + 2 *
this.callsMadeToNonJio;
        } else {
            totalBill = 5 * this.callsMadeToJio + 6 *
this.callsMadeToNonJio;
        }

        this.billAmount = totalBill;
    }

    /**
    * Main caller function to test class
    */
    public static void main(String args[]) {
        Scanner handler = new Scanner(System.in);

        System.out.println("LAB.CAT.19BCE2669 :: Yash Kumar Verma");
        System.out.println("Enter number of customers: ");
        int customers = handler.nextInt();

        // create array of objects and call default constructor of all
objects
        JioCharges[] jioCustomers = new JioCharges[customers];

        // Now edit the data using getData function
        for (int i = 0; i < customers; i++) {
            jioCustomers[i] = new JioCharges();
            jioCustomers[i].getData();
        }

        // displaying report of all accounts
        for (int i = 0; i < customers; i++) {
            System.out.println("Customer Name : " +
jioCustomers[i].customerName);
            System.out.println("Calls to Jio : " +
jioCustomers[i].getCallsMadeToJio());
            System.out.println("Calls to Non Jio : " +
jioCustomers[i].getCallsMadeToNonJio());
            System.out.println("Total Bill : " +
jioCustomers[i].billAmount);
        }
    }
}
```

```

        System.out.println();
    }

}
}

```

## Output

```

yash@hephaestus: ~
yash@hephaestus:~/Desktop/files/works/projects/playing-with-java/lab_cat
→ lab_cat git:(master) X javac JioCharges.java
→ lab_cat git:(master) X java JioCharges
LAB.CAT.19BCE2669 :: Yash Kumar Verma
Enter number of customers: 3
Enter the details about the user :
Enter customer name : Yash Kumar Verma
Enter number of calls made to jio network : 200
Enter number of calls made to non jio network : 250

Enter the details about the user :
Enter customer name : Dhruv Verma
Enter number of calls made to jio network : 500
Enter number of calls made to non jio network : 800

Enter the details about the user :
Enter customer name : Shivam
Enter number of calls made to jio network : 34
Enter number of calls made to non jio network : 100

Customer Name : Yash Kumar Verma
Calls to Jio : 200
Calls to Non Jio : 250
Total Bill : 2500

Customer Name : Dhruv Verma
Calls to Jio : 500
Calls to Non Jio : 800
Total Bill : 7300

Customer Name : Shivam
Calls to Jio : 34
Calls to Non Jio : 100
Total Bill : 234

Execution time: 0h:00m:25s_sec
→ lab_cat git:(master) X

```

3. Write an application that executes two threads. One thread displays --An "HELLO" every 1000 milliseconds and other displays --" WELCOME TO VIT" every 3000 milliseconds. Create the threads by extending the Thread class.

4. Create a class by name **JioCharges** with the following members.

Instance Members : Customer Name, Number of calls made to jio, Number of calls made to other services and BillAmount .

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Note: Use the following information to calculate the amount to be paid

No. of Calls	Jio Rs./Call	Others Rs./Call
Between 0 and 200	1	2
Between 200 and 300	2	3
Above 300	5	6

Write a main class to test the program for an array of objects.

5. If there are 4 batches in JTEch - "CSE1007" course, read the count of the slow

```

yash@hephaestus: ~
yash@hephaestus:~/Desktop/files/works/projects/playing-with-java/lab_cat
→ lab_cat git:(master) X java JioCharges
LAB.CAT.19BCE2669 :: Yash Kumar Verma
Enter number of customers: 2
Enter the details about the user :
Enter customer name : Yash Verma
Enter number of calls made to jio network : 10
Enter number of calls made to non jio network : 900

Enter the details about the user :
Enter customer name : Dhruv
Enter number of calls made to jio network : 500
Enter number of calls made to non jio network : 900

Customer Name : Yash Verma
Calls to Jio : 10
Calls to Non Jio : 900
Total Bill : 5450

Customer Name : Dhruv
Calls to Jio : 500
Calls to Non Jio : 900
Total Bill : 7900

Execution time: 0h:00m:14s_sec
→ lab_cat git:(master) X

```

3. Write an application that executes two threads. One thread displays --An "HELLO" every 1000 milliseconds and other displays --" WELCOME TO VIT" every 3000 milliseconds. Create the threads by extending the Thread class.

4. Create a class by name **JioCharges** with the following members.

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