EX.NO:02	CURRENCY CONVERTER
DATE: 12-07-19	

AIM:

To develop a java program console application to convert currency with DOLLAR TO INR, INR TO DOLLAR, INR TO EURO, EURO TO INR, YEN TO INR, INR TO YEN display the result.

REQUIREMENT:

Create a class currency converter with the following:-

Data member: dollor to inr, inr to dollar, inr to euro, euro to inr, yen to inr, inr to yen.

Member function: Read the value, compute the value, print the value.

ALGORITHM:

STEP-1 Declare the package currency library converter app.

STEP-2 Declare a class name of currency converter.

STEP-3 Declare a constructor with initial attribute.

STEP-4 Declare getdata member and member function.

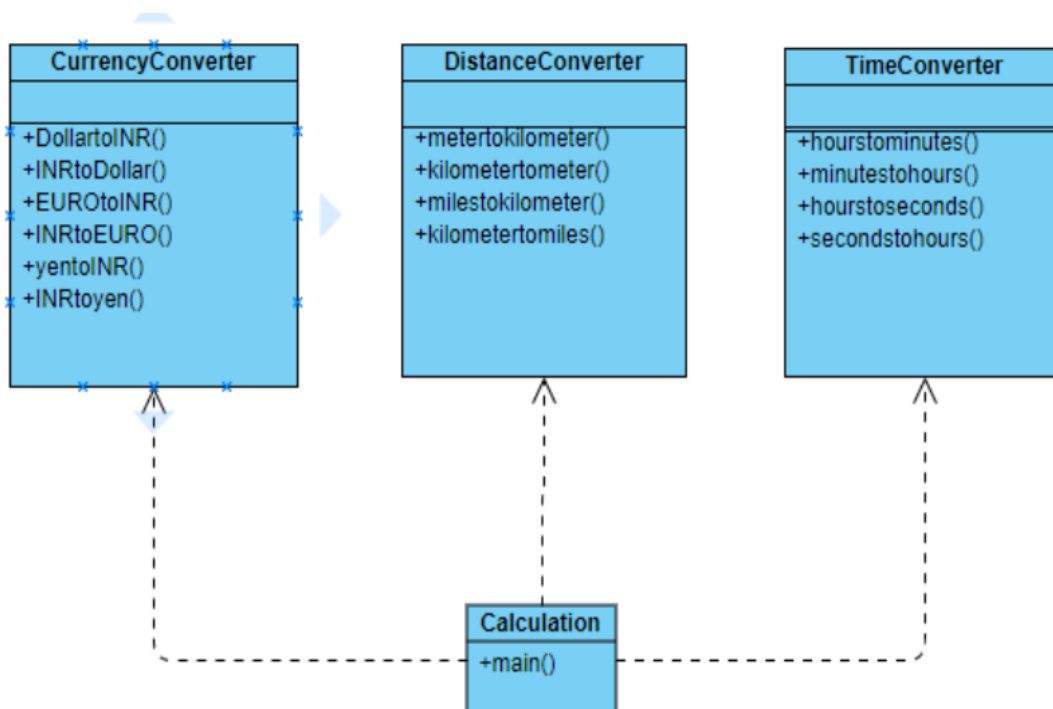STEP-5 Declare class calculation with a static main function.

STEP-6 Create object with dollar, inr, euro,yen.

STEP-7 Get the input from user.

STEP-8 Calculate the converter

STEP-9 Display result.

CLASS DIAGRAM:

PROGRAM:

```java
/**
*EXPERIMENT-02
*developed by Nithishkumar
*Saveetha Engineering College
*jpnithishkumar@gmail.com
*/
package ConvertorLibrary;

public class CurrencyConvertor  {

    public static double DollartoInr(double Dollar)
    {
        double Inr;
            Inr=Dollar*68.56;
        return Inr;
    }

    public static double InrtoDollar(double Inr)
    {
        double Dollar;
            Dollar=Inr/68.56;
        return Dollar;
    }

    public static double EurotoInr(double Euro)
    {
        double Inr;
            Inr=Euro*77.39;
        return Inr;
    }

    public static double InrtoEuro(double Inr)
    {
        double Euro;
            Euro=Inr/77.39;
        return Euro;
    }

    public static double YentoInr(double Yen)
    {
        double Inr;
            Inr=Yen*0.62;
        return Inr;
    }
    public static double InrtoYen(double Inr)
    {
        double Yen;
```

```java
            Yen=Inr/0.62;
            return Yen;
        }
}


/**
*EXPERIMENT-02
*developed by Nithishkumar
*Saveetha Engineering College
*jpnithishkumar@gmail.com
*/
package ConvertorLibrary;

public class DistanceConvertor {
    public static double MetertoKm(double Meter)
    {
        double Km;
            Km=Meter/1000;
        return Km;
    }

    public static double KmtoMeter(double Km)
    {
        double Meter;
            Meter=Km*1000;
        return Meter;
    }
    public static double MilestoKm(double Miles)
    {
        double Km;
            Km=Miles*1.609;
        return Km;

    }
    public static double KmtoMiles(double Km)
    {
        double Miles;
            Miles=Km/1.609;
        return Miles;
    }
}


/**
*EXPERIMENT-02
*developed by Nithishkumar
*Saveetha Engineering College
*jpnithishkumar@gmail.com
*/
package ConvertorLibrary;
```

```java
public class TimeConvertor {
    public static double HourstoMinutes(double Minutes)
    {
        double Hours;
            Hours=Minutes*60.0;
        return Hours;
    }
    public static double MinutestoHours(double Hours)
    {
        double Minutes;
            Minutes=Hours/60.0;
        return Minutes;
    }
    public static double HourstoSeconds(double Seconds)
    {
        double Hours;
            Hours=Seconds*3600;
        return Hours;
    }
    public static double SecondstoHours(double Hours)
    {
        double Seconds;
            Seconds=Hours/3600;
        return Seconds;
    }

}


/**
*EXPERIMENT-02
*developed by Nithishkumar
*Saveetha Engineering College
*jpnithishkumar@gmail.com
*/

package ConvertorApp;

import java.util.Scanner;

import ConvertorLibrary.*;

public class Calculation{

    public static void main(String[] args) {
        double value1,value2;
        int option;
        Scanner sc=new Scanner(System.in);
```

```java
        while(true)
        {
            System.out.println("1. DollartoInr conversion");
            System.out.println("2. InrtoDollar conversion");
            System.out.println("3. EurotoInr conversion");
            System.out.println("4. InrtoEuro conversion");
            System.out.println("5. YentoInr conversion");
            System.out.println("6. InrtoYen conversion");
            System.out.println("7. MetertoKm conversion");
            System.out.println("8. KmtoMeter conversion");
            System.out.println("9. MilestoKm conversion");
            System.out.println("10. KmtoMiles conversion");
            System.out.println("11. HourstoMinutes conversion");
            System.out.println("12. MinutestoHours conversion");
            System.out.println("13. HourstoSeconds conversion");
            System.out.println("14. SecondstoHours conversion");
            System.out.println("15. Exit");
            System.out.print("Enter your choice:");

            option=sc.nextInt();
            switch(option)
            {
            case 1:
                System.out.print("Enter currency in Dollar:");
                value1=sc.nextDouble();
                value2=CurrencyConvertor.DollartoInr(value1);
                System.out.printf("%.2f Dollar is equal to %.2f Inr.\n", value1,value2);
                break;
            case 2:
                System.out.print("Enter currency in Inr:");
                value1=sc.nextDouble();
                value2=CurrencyConvertor.InrtoDollar(value1);
                System.out.printf("%.2f Inr is equal to %.2f Dollar.\n", value1,value2);
                break;
            case 3:
                System.out.print("Enter Currency in Euro:");
                value1=sc.nextDouble();
                value2=CurrencyConvertor.EurotoInr(value1);
                System.out.printf("%.2f Euro is equal to %.2f Inr.\n", value1,value2);
                break;
            case 4:
                System.out.print("Enter Currency in Inr:");
                value1=sc.nextDouble();
```

```java
                    value2=CurrencyConvertor.InrtoEuro(value1);
                    System.out.printf("%.2f Inr is equal to %.2f
Euro.\n", value1,value2);
                break;
            case 5:
                    System.out.print("Enter Currency in Yen:");
                    value1=sc.nextDouble();
                    value2=CurrencyConvertor.YentoInr(value1);
                    System.out.printf("%.2f Yen is equal to %.2f
Inr.\n", value1,value2);
                break;
            case 6:
                    System.out.print("Enter Currency in Inr:");
                    value1=sc.nextDouble();
                    value2=CurrencyConvertor.InrtoYen(value1);
                    System.out.printf("%.2f Inr is equal to %.2f
Yen.\n", value1,value2);
                break;
            case 7:
                    System.out.print("Enter Distance in Meter:");
                    value1=sc.nextDouble();
                    value2=DistanceConvertor.MetertoKm(value1);
                    System.out.printf("%.2f Meter is equal to %.2f
Km.\n", value1,value2);
                break;
            case 8:
                    System.out.print("Enter Distance in Km:");
                    value1=sc.nextDouble();
                    value2=DistanceConvertor.KmtoMeter(value1);
                    System.out.printf("%.2f Km is equal to %.2f
Meter.\n", value1,value2);
                break;
            case 9:
                    System.out.print("Enter Distance in Miles:");
                    value1=sc.nextDouble();
                    value2=DistanceConvertor.MilestoKm(value1);
                    System.out.printf("%.2f Miles is equal to %.2f
Km.\n", value1,value2);
                break;
            case 10:
                    System.out.print("Enter Distance in Km:");
                    value1=sc.nextDouble();
                    value2=DistanceConvertor.KmtoMiles(value1);
                    System.out.printf("%.2f Km is equal to %.2f
Miles.\n", value1,value2);
                break;
            case 11:
                    System.out.print("Enter Time in Hours :");
                    value1=sc.nextDouble();
                    value2=TimeConvertor.HourstoMinutes(value1);
```

```java
                System.out.printf("%.2f Hours is equal to %.2f
Minutes.\n", value1,value2);
                    break;
            case 12:
                System.out.print("Enter Timein Minutes:");
                value1=sc.nextDouble();
                value2=TimeConvertor.MinutestoHours(value1);
                System.out.printf("%.2f Minutes is equal to
%.2f Hours.\n", value1,value2);
                    break;
            case 13:
                System.out.print("Enter Time in Hours:");
                value1=sc.nextDouble();
                value2=TimeConvertor.HourstoSeconds(value1);
                System.out.printf("%.2f Hours is equal to %.2f
Seconds.\n", value1,value2);
                    break;
            case 14:
                System.out.print("Enter Time in Seconds:");
                value1=sc.nextDouble();
                value2=TimeConvertor.SecondstoHours(value1);
                System.out.printf("%.2f Seconds is equal to
%.2f Hours.\n", value1,value2);
                    break;
            case 15:
                System.out.println("Thankyou for using
converter application !!!");
                    break;
            default:
                System.out.print("Please enter a valid
number !!!");
            }

            if(option==5)
            {
                break;
            }
        }

    }

}
```

OUTPUT:
```
1. DollartoInr conversion
2. InrtoDollar conversion
3. EurotoInr conversion
4. InrtoEuro conversion
```

```
5. YentoInr conversion
6. InrtoYen conversion
7. MetertoKm conversion
8. KmtoMeter conversion
9. MilestoKm conversion
10. KmtoMiles conversion
11. HourstoMinutes conversion
12. MinutestoHours conversion
13. HourstoSeconds conversion
14. SecondstoHours conversion
15. Exit
Enter your choice:1
Enter currency in Dollar:5
5.00 Dollar is equal to 342.80 Inr.
1. DollartoInr conversion
2. InrtoDollar conversion
3. EurotoInr conversion
4. InrtoEuro conversion
5. YentoInr conversion
6. InrtoYen conversion
7. MetertoKm conversion
8. KmtoMeter conversion
9. MilestoKm conversion
10. KmtoMiles conversion
11. HourstoMinutes conversion
12. MinutestoHours conversion
13. HourstoSeconds conversion
14. SecondstoHours conversion
15. Exit
Enter your choice:4
Enter Currency in Inr:80
80.00 Inr is equal to 1.03 Euro.
1. DollartoInr conversion
2. InrtoDollar conversion
3. EurotoInr conversion
4. InrtoEuro conversion
5. YentoInr conversion
6. InrtoYen conversion
7. MetertoKm conversion
8. KmtoMeter conversion
9. MilestoKm conversion
10. KmtoMiles conversion
11. HourstoMinutes conversion
12. MinutestoHours conversion
13. HourstoSeconds conversion
14. SecondstoHours conversion
15. Exit
Enter your choice:8
Enter Distance in Km:2
2.00 Km is equal to 2000.00 Meter.
```

```
1. DollartoInr conversion
2. InrtoDollar conversion
3. EurotoInr conversion
4. InrtoEuro conversion
5. YentoInr conversion
6. InrtoYen conversion
7. MetertoKm conversion
8. KmtoMeter conversion
9. MilestoKm conversion
10. KmtoMiles conversion
11. HourstoMinutes conversion
12. MinutestoHours conversion
13. HourstoSeconds conversion
14. SecondstoHours conversion
15. Exit
Enter your choice:10
Enter Distance in Km:6
6.00 Km is equal to 3.73 Miles.
1. DollartoInr conversion
2. InrtoDollar conversion
3. EurotoInr conversion
4. InrtoEuro conversion
5. YentoInr conversion
6. InrtoYen conversion
7. MetertoKm conversion
8. KmtoMeter conversion
9. MilestoKm conversion
10. KmtoMiles conversion
11. HourstoMinutes conversion
12. MinutestoHours conversion
13. HourstoSeconds conversion
14. SecondstoHours conversion
15. Exit
Enter your choice:15
.Thankyou for using converter application !!!
1. DollartoInr conversion
2. InrtoDollar conversion
3. EurotoInr conversion
4. InrtoEuro conversion
5. YentoInr conversion
6. InrtoYen conversion
7. MetertoKm conversion
8. KmtoMeter conversion
9. MilestoKm conversion
10. KmtoMiles conversion
11. HourstoMinutes conversion
12. MinutestoHours conversion
13. HourstoSeconds conversion
14. SecondstoHours conversion
15. Exit
```

```
Enter your choice:
```

RESULT:

Thus the java application is generated successfully.