

EX.NO : 02	<b>CURRENCY CONVERTER</b>
DATE : 12.07.19	

## AIM :

To develop a java console application for the currency converter,distance converter and time converter.

## REQUIREMENT:

Develop a java application to create a package converter library and converter app and to create the classes as currency converter,distance converter and time converter with the member functions as dollar to INR,EURO to INR and yen to INR and viceversa from the class currency converter.also with member functions as meter to kilometer and miles to kilometer and viceversa conversions from the class distance converter.similarly hours to minutes and hours to seconds and viceversa as data members from the class time converter.

## ALGORITHM:

**Step 1:** Declare the packages as coverter library and converter app.

**Step 2:** Declare the class names as currency converter,distance converter and time converter.

**Step 3:** Declare all the member functions.

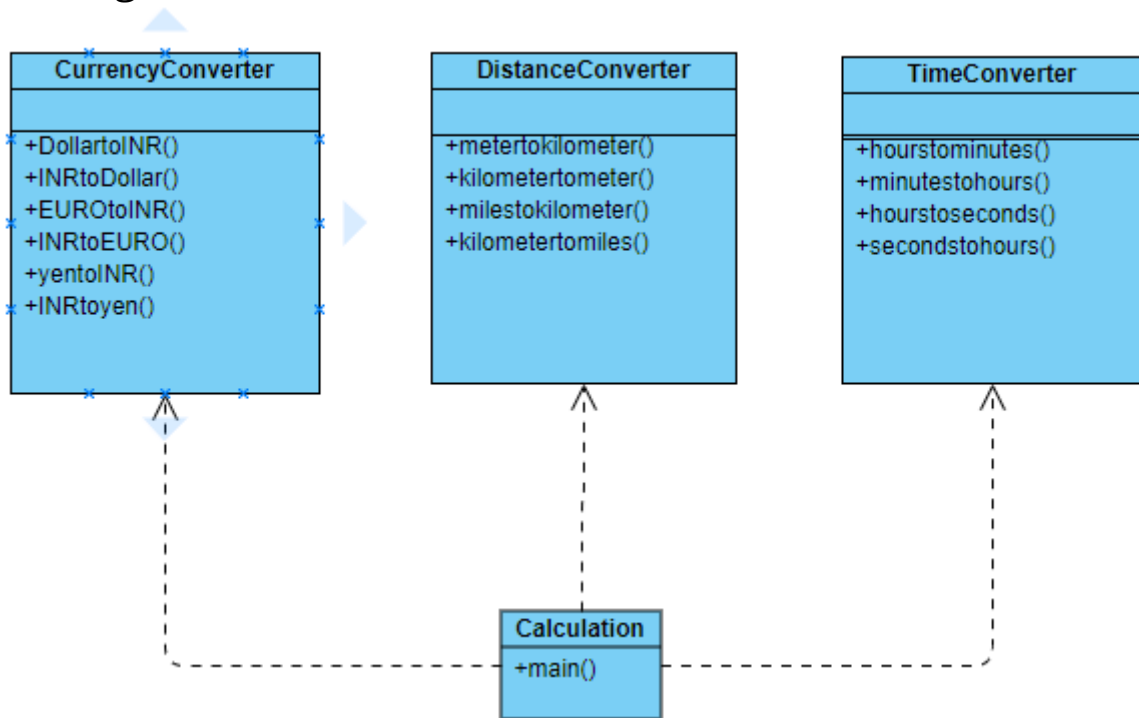
**Step 4:** Create the package as converter app and import all the conversion calculation from the converter library package.

**Step 5:** Get the input from the user.

**Step 6:** Calculate the corresponding conversion.

**Step 7:** Display the result.

## Class Diagram:



## PROGRAM:

```
/**
 * Program for Currency Converter
 * @author Rositha V
 * rosithav1@gmail.com
 */
package converterlibrary;
import java.util.*;
public class CurrencyConverter{
    double inr,usd;
    double euro,yen;
    Scanner in=new Scanner(System.in);
    public void dollartorupee()
    {
        System.out.println("Enter dollars to convert into Rupees:");
        usd=in.nextInt();
        inr=usd*67;
        System.out.println("Dollar="+usd+"equal to INR="+inr);
    }
    public void rupeetodollar()
    {
        System.out.println("Enter Rupee to convert into Dollars:");
        inr=in.nextInt();
        usd=inr/67;
        System.out.println("rupee="+inr+"equal to dollars="+usd);
    }
    public void eurotorupee()
    {

```

```

        System.out.println("enter euro to convert into rupee:");
        euro=in.nextInt();
        inr=euro*79.50;
        System.out.println("Euro="+euro+"equal to INR="+inr);
    }
    public void rupeetoeuro()
    {
        System.out.println("enter rupees to convert into euro:");
        inr=in.nextInt();
        euro=(inr/79.50);
        System.out.println("rupee="+inr+"equal to euro="+euro);
    }
    public void yentorupee()
    {
        System.out.println("enter yen to convert into rupees:");
        yen=in.nextInt();
        inr=yen*0.61;
        System.out.println("yen="+yen+"equal to inr="+inr);
    }
    public void rupeetoyen()
    {
        System.out.println("inr="+inr+"equal to yen"+yen);
        inr=in.nextInt();
        yen=(inr/0.61);
        System.out.println("inr="+inr+"equal to yen"+yen);
    }
}

```

/\*\*\*\*\*

```

* Program for Distance Converter
* @author Rositha V
* rosithav1@gmail.com
*/

```

```

package converterlibrary;
import java.util.Scanner;
public class DistanceConverter{
    double km,m,miles;
    Scanner sc = new Scanner(System.in);
    public void kmtom()
    {
        System.out.print("Enter in km ");
        km=sc.nextDouble();
        m=(km*1000);
        System.out.println(km+"km" +"equal to"+m+"metres");
    }
    public void mtokm()
    {
        System.out.print("Enter in meter ");
        m=sc.nextDouble();
        km=(m/1000);
        System.out.println(m+"m" +"equal to"+km+"kilometres");
    }
}

```

```

public void milestokm()
{
    System.out.print("Enter in miles");
    miles=sc.nextDouble();
    km=(miles*1.60934);
    System.out.println(miles+"miles" +"equal to"+km+"kilometres");
}
public void kmtomiles()
{
    System.out.print("Enter in km");
    km=sc.nextDouble();
    miles=(km*0.621371);
    System.out.println(km+"km" +"equal to"+miles+"miles");
}
}

```

```

/*****

```

```

* Program for Time Converter
* @author Rositha V
* rosithav1@gmail.com
*/

```

```

package converterlibrary;
import java.util.*;
public class TimeConverter{
    int hours,seconds,minutes;
    int input;
    Scanner sc = new Scanner(System.in);
    public void secondstohours()
    {
        System.out.print("Enter the number of seconds: ");
        input = sc.nextInt();
        hours = input / 3600;
        minutes = (input % 3600) / 60;
        seconds = (input % 3600) % 60;
        System.out.println("Hours: " + hours);
        System.out.println("Minutes: " + minutes);
        System.out.println("Seconds: " + seconds);
    }
    public void minutestohours()
    {
        System.out.print("Enter the number of minutes: ");
        minutes=sc.nextInt();
        hours=minutes/60;
        minutes=minutes%60;
        System.out.println("Hours: " + hours);
        System.out.println("Minutes: " + minutes);
    }
    public void hourstominutes()
    {
        System.out.println("enter the no of hours");
        hours=sc.nextInt();
        minutes=(hours*60);
    }
}

```

```

        System.out.println("Minutes: " + minutes);
    }
    public void hourstoseconds()
    {
        System.out.println("enter the no of hours");
        hours=sc.nextInt();
        seconds=(hours*3600);
        System.out.println("Minutes: " + seconds);
    }
}

```

Calculation:

```

/****
 * Program for Currency Converter
 * @author Rositha V
 * rosithav1@gmail.com
 */
package converterapp;
import java.util.*;
import converterlibrary.*;
public class Calculation1
{
    public static void main(String args[])
    {
        Scanner sc=new Scanner(System.in);
        int choice,ch;
        CurrencyConverter c=new CurrencyConverter();
        DistanceConverter d=new DistanceConverter();
        TimeConverter t=new TimeConverter();
        do
        {
            System.out.println("1.dollar to rupee ");
            System.out.println("2.rupee to dollar ");
            System.out.println("3.Euro to rupee ");
            System.out.println("4.rupee to Euro ");
            System.out.println("5.Yen to rupee ");
            System.out.println("6.Rupee to Yen ");
            System.out.println("7.Meter to kilometer ");
            System.out.println("8.kilometer to meter ");
            System.out.println("9.Miles to kilometer ");
            System.out.println("10.kilometer to miles");
            System.out.println("11.Hours to Minutes");
            System.out.println("12.Hours to Seconds");
            System.out.println("13.Seconds to Hours");
            System.out.println("14.Minutes to Hours");
            System.out.println("Enter ur choice");
            choice=sc.nextInt();
            switch(choice)
            {
                case 1:
                {
                    c.dollartorupee();

```

```
    break;
}
case 2:
{
    c.rupeetodollar();
    break;
}
case 3:
{
    c.eurotorupee();
    break;
}
case 4:
{
    c.rupeetoeuro();
    break;
}
case 5:
{
    c.yentorupee();
    break;
}
case 6:
{
    c.rupeetoyen();
    break;
}
case 7:
{
    d.mtokm();
    break;
}
case 8:
{
    d.kmtom();
    break;
}
case 9:
{
    d.milestokm();
    break;
}
case 10 :
{
    d.kmtomiles();
    break;
}
case 11:
{
    t.hourstominutes();
    break;
}
```

```

        case 12:
        {
            t.hourstoseconds();
            break;
        }
        case 13:
        {
            t.secondstohours();
            break;
        }
        case 14:
        {
            t.minutestohours();
            break;
        }
        }
        System.out.println("Enter 0 to quit and 1 to continue ");
        ch=sc.nextInt();
    }
    while(ch==1);
    }
}

```

## OUTPUT:

```

1.dollar to INR conversion
2.INR to dollar conversion
3.eURO to INR conversion
4.INR to eURO conversion
5.yen to INR conversion
6.INR to yen conversion
7.meter yo KM conversion
8.KM to meter conversion
9.miles to KM conversion
10.KM to miles conversion
11.hours to minutees conversion
12.minutes to hours conversion
13.hours to Seconds conversion
14.Seconds to hours conversion
15.Exit
Enter your choice 1
Enter currency in dollar 25
25.00 dollar is equal to 1714.00 INR .
1.dollar to INR conversion
2.INR to dollar conversion
3.eURO to INR conversion
4.INR to eURO conversion
5.yen to INR conversion
6.INR to yen conversion
7.meter yo KM conversion
8.KM to meter conversion
9.miles to KM conversion
10.KM to miles conversion

```

11.hours to minutees conversion

12.minutes to hours conversion`

13.hours to Seconds conversion

14.Seconds to hours conversion

15.Exit

Enter your choice 8

Enter distance in KM 10

10.00 KM is equal to 10000.00 meter .

1.dollar to INR conversion

2.INR to dollar conversion

3.eURO to INR conversion

4.INR to eURO conversion

5.yen to INR conversion

6.INR to yen conversion

7.meter yo KM conversion

8.KM to meter conversion

9.miles to KM conversion

10.KM to miles conversion

11.hours to minutees conversion

12.minutes to hours conversion

13.hours to Seconds conversion

14.Seconds to hours conversion

15.Exit

Enter your choice