

GENERATE CURRENCY CONVERTER

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:

Step1. Declare the packages as coverter library and converter app.

Step2. Declare the class names as currency converter,distance converter and time converter.

Step3. Declare all the member functions.

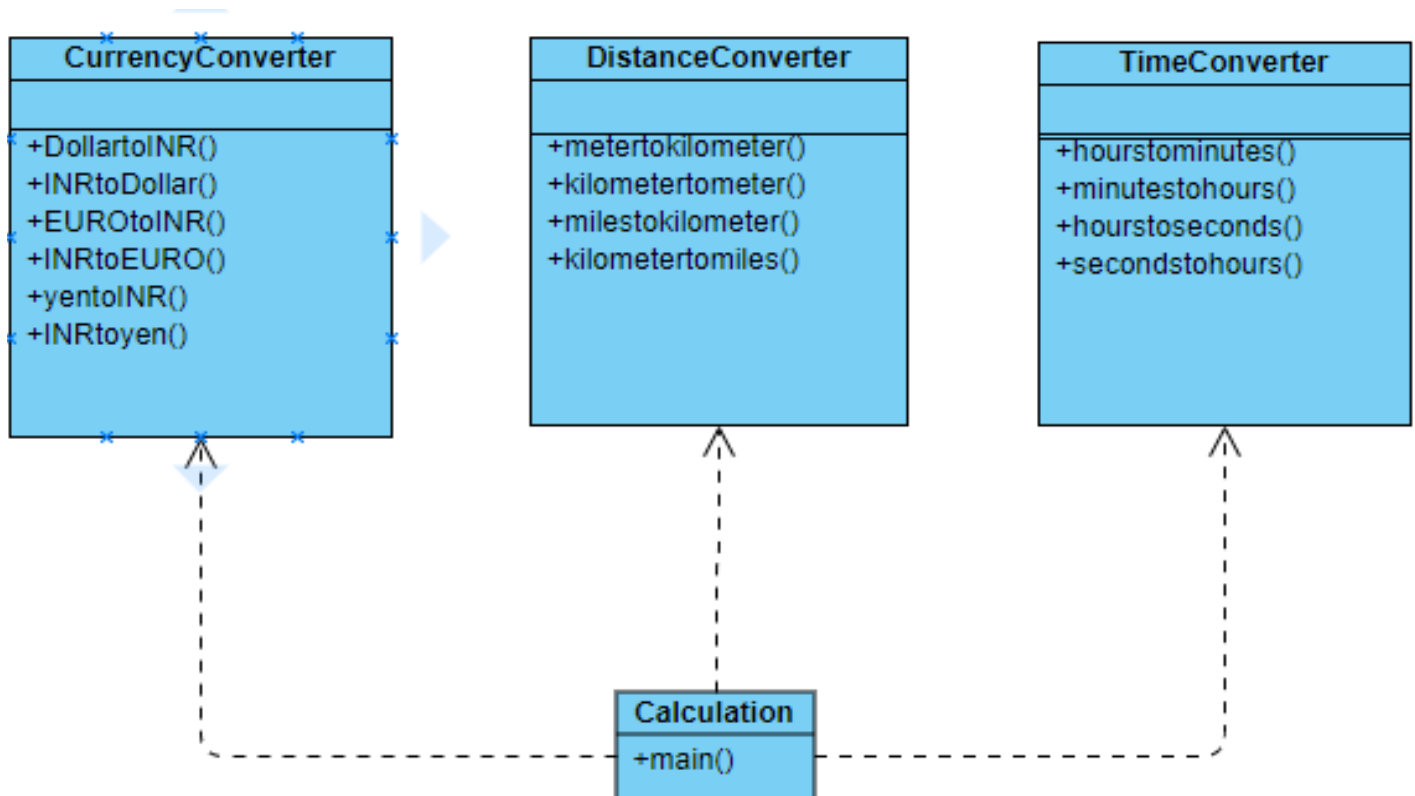
Step4. Create the package as converter app and import all the conversion calculation from the converter library package.

Step5. Get the input from the user.

Step6. Calculate the corresponding conversion.

Step7.Display the result.

CLASS DIAGRAM:



PROGRAM:

```
/**
 * Program for Currency Converter
 * @author RAJAMANICKAM A
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 */
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();
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        break;
    }
    case 14:
    {
        t.minutestohours();
        break;
    }
    }
    System.out.println("Enter 0 to quit and 1 to continue ");
    ch=sc.nextInt();
}
while(ch==1);
}
}
/*****
 * Program for Currency Converter
 * @author RAJAMANICKAM A
 * rajapandidevi1997@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 rupeeoeuro()
    {
        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);
    }
}

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    }
    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 RAJAMANICKAM A
 * rajapandidevi1997@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);
    }
}

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        System.out.println(km+"km" +"equal to"+miles+"miles");
    }
}
/*****
 * Program for time Converter
 * @author RAJAMANICKAM A
 * rajapandidevi1997@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);
    }
}

```

OUTPUT:

1.dollar to rupee

```
2.rupee to dollar
3.Euro to rupee
4.rupee to Euro
5.Yen to rupee
6.Rupee to Yen
7.Meter to kilometer
8.kilometer to meter
9.Miles to kilometer
10.kilometer to miles
11.Hours to Minutes
12.Hours to Seconds
13.Seconds to Hours
14.Minutes to Hours
Enter ur choice
1
Enter dollars to convert into Rupees:
26
Dollar=26.0equal to INR=1742.0
Enter 0 to quit and 1 to continue
```

RESULT:

Thus a java console application is developed to find the distace currency and time converter using packages.