EXP NO:2	Converter App
Date:12/07/2019	

AIM:

To generate java application to convert currency,time,distance.

REQUIREMENT:

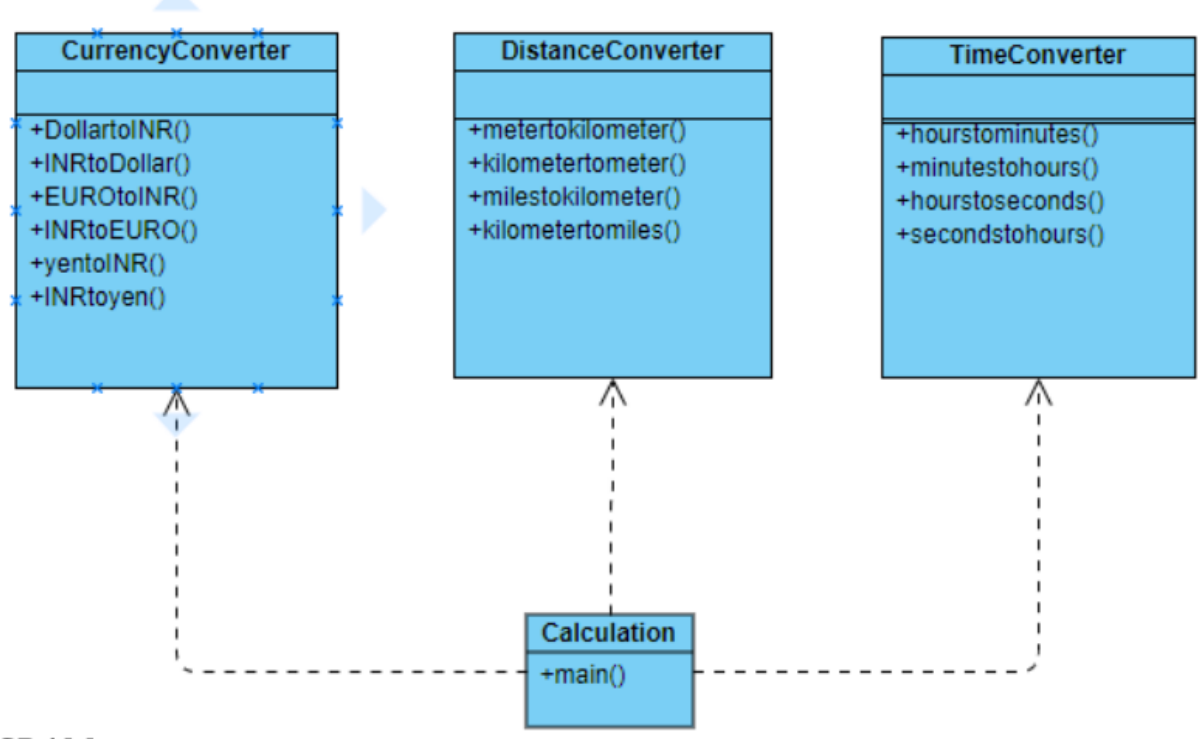
Develop a java application to create a package and to create a converter application to convert doller to inr,euro to inr, yen to inr,meter to km,meter to miles,hours to mins ,min to hours,sec to hours and vise versa

create a class calculation with main function create object of coverter app get data and display the conversion()function

ALGORIHM:\

step1: start
step2:Declare a package converter
step3:Declare a calss to convert currency class name as currency converter
step4:Declare a constructer with initial attributes
step5:Declare a calss to convert distance class name as distance converter
step6:Declare a constructer with initial attributes
step7:Declare a calss to convert time class name as time converter
step8:Declare a constructer with initial attributes
step9:get data member and member function
step10:Declare class calcul;ation with in a static main function
step11:create object
step12:get the input
step13:calculate the convertion
step14:Display result

CLASS DIAGRAM:



PROGRAM:

Distance converter

```
/**
1 * Application for area and length conversion
 *
 * developed by suriyakumar
 * sksuri01@gmail.com
 * 212217105057
 */
package converterlibrary;

public class DistanceConverter {

 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;
 }
}
```

Money converter

```
/**
1 * Application for area and length conversion
 *
 * developed by suriyakumar
 * sksuri01@gmail.com
 * 212217105057
 */
package converterlibrary;
public class MoneyConverter {
```

```
    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*17.39;
        return inr;
    }
    public static double inrToeuro(double inr)
    {
        double euro;
        euro=inr/17.39;
        return euro;
    }
    public static double yenToinr(double yen)
    {
        double inr;
        inr=yen*0.62;
        return inr;
    }
    public static double inrToyen(double inr)
    {
        double yen;
        yen=inr/0.62;
        return yen;
    }
}
```

Time converter

```
/**
1 * Application for area and length conversion
 *
 * developed by suriyakumar
 * sksuri01@gmail.com
 * 212217105057
 */
package converterlibrary;
public class TimeConverter {

    public static double hoursTomins(double hours)
    {
        double mins;
        mins=hours*60.0;
```

```
        return mins;
    }
    public static double minsTohours(double mins)
    {
        double hours;
        hours=mins/160;
        return hours;
    }
    public static double hoursTosec(double hours)
    {
        double sec;
        sec=hours*3600;
        return sec;
    }
    public static double secTohours(double sec)
    {
        double hours;
        hours=sec/3600;
        return hours;
    }
}
```

Calculation

```
/**
1 * Application for area and length conversion
 *
 * developed by suriyakumar
 * sksuri01@gmail.com
 * 212217105057
 */
package Converterapp;

import java.util.Scanner;
import converterlibrary.*;
public class Calculation1 {

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

        while(true)
        {
         System.out.println("1. dollar to inr");
         System.out.println("2. inr to dollar");
         System.out.println("3. euro to inr");
         System.out.println("4. inr to euro ");
         System.out.println("5. yen to inr");
         System.out.println("6. inr to yen");
         System.out.println("7. meter to km");
         System.out.println("8. km to meter ");
         System.out.println("9. miles to km");
         System.out.println("10.km to miles");
```

```
System.out.println("11. hours to mins");
System.out.println("12. mins to hours");
System.out.println("13.hours to sec ");
System.out.println("14. sec to hours");
System.out.println("15. Exit");
System.out.print("Enter your choice:");

option=sc.nextInt();
switch(option)
{
case 1:
        System.out.print("Enter moneyin doller:");
        value1=sc.nextDouble();
        value2=MoneyConverter.dollarToinr(value1);
        System.out.printf("%.2f dolleris equal to %.2f inr.\n", value1,value2);
        break;
case 2:
        System.out.print("Enter money  in inr:");
        value1=sc.nextDouble();
        value2=MoneyConverter.inrTodollar(value1);
        System.out.printf("%.2f inr is equal to %.2f dollar.\n", value1,value2);
        break;
case 3:
        System.out.print("Enter money  in euro:");
        value1=sc.nextDouble();
        value2=MoneyConverter.euroToinr(value1);
        System.out.printf("%.2f eurois equal to %.2f inr.\n", value1,value2);
        break;
case 4:
        System.out.print("Enter money  in inr:");
        value1=sc.nextDouble();
        value2=MoneyConverter.inrToeuro(value1);
        System.out.printf("%.2f inris equal to %.2f euro.\n", value1,value2);
        break;
case 5:
        System.out.print("Enter money  in yen:");
        value1=sc.nextDouble();
        value2=MoneyConverter.yenToinr(value1);
        System.out.printf("%.2f yenis equal to %.2f inr.\n", value1,value2);
        break;
case 6:
        System.out.print("Enter money  in inr:");
        value1=sc.nextDouble();
        value2=MoneyConverter.inrToyen(value1);
        System.out.printf("%.2f inris equal to %.2f yen.\n", value1,value2);
        break;
case 7:
        System.out.print("Enter distance in meter:");
        value1=sc.nextDouble();
        value2=DistanceConverter.kmTometer(value1);
        System.out.printf("%.2f meteris equal to %.2f km.\n", value1,value2);
        break;
```

```
case 8:
        System.out.print("Enter distance in km:");
        value1=sc.nextDouble();
        value2=DistanceConverter.meterTokm(value1);
        System.out.printf("%.2f kmis equal to %.2f meter.\n", value1,value2);
        break;
case 9:
        System.out.print("Enter distance in miles:");
        value1=sc.nextDouble();
        value2=DistanceConverter.milesTokm(value1);
        System.out.printf("%.2f milesis equal to %.2f km.\n", value1,value2);
        break;
case 10:
        System.out.print("Enter distance in km:");
        value1=sc.nextDouble();
        value2=DistanceConverter.kmTomiles(value1);
        System.out.printf("%.2f kmis equal to %.2f miles.\n", value1,value2);
        break;
case 11:
        System.out.print("Enter time in hours:");
        value1=sc.nextDouble();
        value2=TimeConverter.hoursTomins(value1);
        System.out.printf("%.2f hoursis equal to %.2f mins.\n", value1,value2);
        break;
case 12:
        System.out.print("Enter time in mins:");
        value1=sc.nextDouble();
        value2=TimeConverter.minsTohours(value1);
        System.out.printf("%.2f minsis equal to %.2f hours.\n", value1,value2);
        break;
case 13:
        System.out.print("Enter time in hours:");
        value1=sc.nextDouble();
        value2=TimeConverter.hoursTosec(value1);
        System.out.printf("%.2f hoursis equal to %.2f sec.\n", value1,value2);
        break;
case 14:
        System.out.print("Enter time in sec:");
        value1=sc.nextDouble();
        value2=TimeConverter.secTohours(value1);
        System.out.printf("%.2f secis 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==15)
{
        break;
```

```
      }
    }

  }

}
```

Output:

```
1. dollar to inr
2. inr to dollar
3. euro to inr
4. inr to euro
5. yen to inr
6. inr to yen
7. meter to km
8. km to meter
9. miles to km
10.km to miles
11. hours to mins
12. mins to hours
13.hours to sec
14. sec to hours
15. Exit
Enter your choice:12
Enter time in mins:60
60.00 minsis equal to 0.38 hours.
1. dollar to inr
2. inr to dollar
3. euro to inr
4. inr to euro
5. yen to inr
6. inr to yen
7. meter to km
8. km to meter
9. miles to km
10.km to miles
11. hours to mins
```

12. mins to hours
13.hours to sec
14. sec to hours
15. Exit
Enter your choice:12
Enter time in mins:3600
3600.00 minsis equal to 22.50 hours.
1. dollar to inr
2. inr to dollar
3. euro to inr
4. inr to euro
5. yen to inr
6. inr to yen
7. meter to km
8. km to meter
9. miles to km
10.km to miles
11. hours to mins
12. mins to hours
13.hours to sec
14. sec to hours
15. Exit
Enter your choice:

RESULT:

Thus,The java application for converion was done by using converter app is implimented successfully