Exp no:	Java Application for Converter App
Date:	

AIM:

To develop the Java console application to convert Currency, Distance, Time and display the result.

REQUIREMENT:

Create a class Currency Converter, Distance Converter, Time Converter with the following.

Data Members: Dollar to INR, INR to Dollar, INR to EURO, EURO to INR, INR to YEN, YEN to INR, KM to Metre, Metre to KM, Miles to KM, KM to Miles, Mins to Hours, Hours to Mins, Sec to Hours, Hours to Sec.

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

ALGORITHM:

Step 1: Declare a package Converter.

Step 2: Declare the class names as Currency, Distance, Time Converters respectively.

Step 3: Declare a constructor with initial attributes.

Step 4: Declare get data member and member functions.

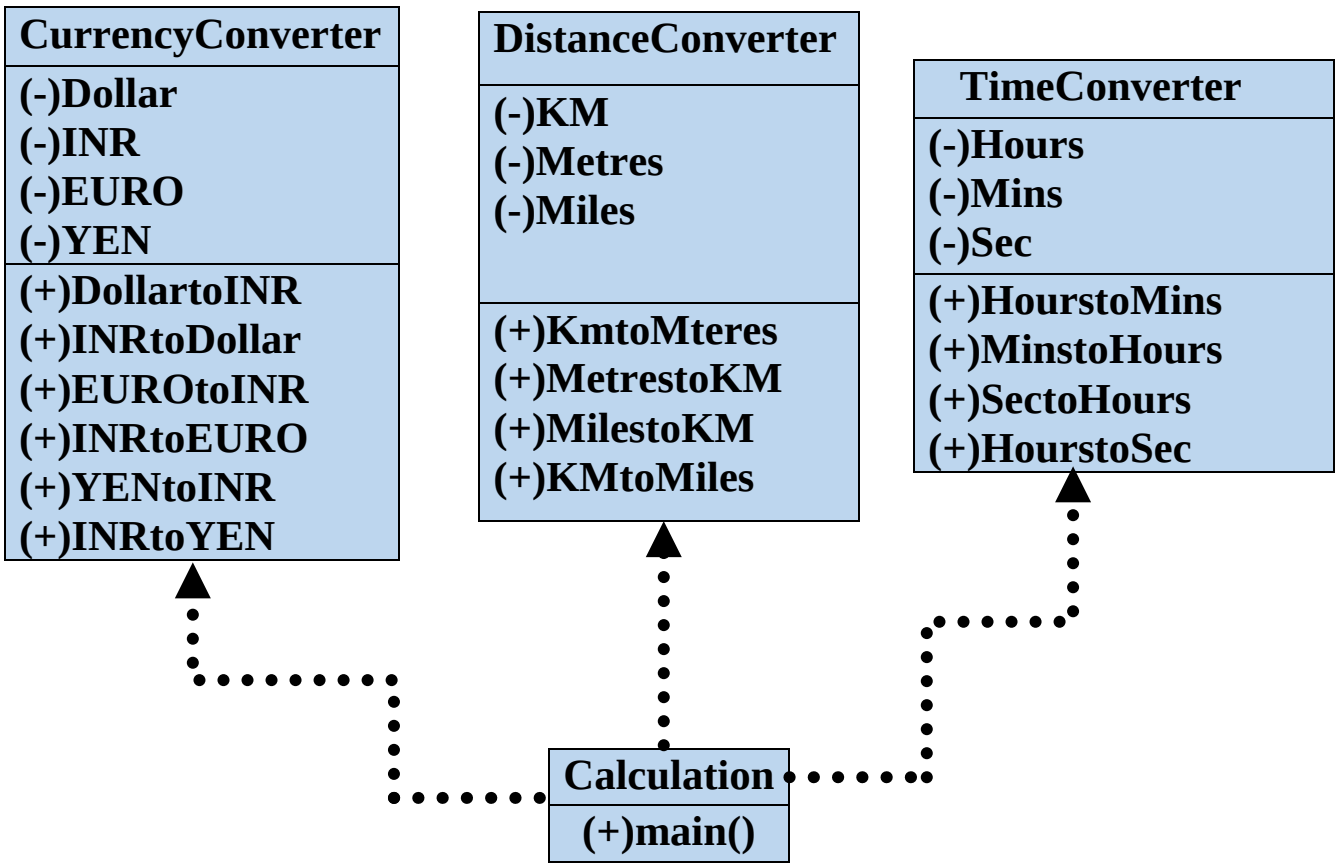
Step 5: Declare class calculation with static main function.

Step 6: Create objects with Dollar, INR, YEN, EURO, KM, Miles, Metre, Hours, Mins, Sec.

Step 7: Get the input from the user.

Step 8: Calculate the Conversion and Display the result.

CLASS DIAGRAM:



JAVA PROGRAM:

CurrencyConverter.java

```
/****
 * Program for Currency Converter
* @author Pavan Kalyan
 *  npkr.nvrr@outlook.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);
        }
}
```

DistanceConverter.java

```
/****
 * Program for Distance Converter
* @author Pavan Kalyan
 *  npkr.nvrr@outlook.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");
    }
}
```

TimeConverter.java

```
/****
 * Program for Time Converter
 * @author Pavan Kalyan
 *  npkr.nvrr@outlook.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);
	}
}
```

Calculation1.java

```
/****
 * Program for Calculation Converter
 * @author Pavan Kalyan
 *  npkr.nvrr@outlook.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 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: 5
enter yen to convert into rupees: 24
yen=24.0equal to inr=14.64
Enter 0 to quit and 1 to continue

RESULT:

Thus Converter App is developed using Java console Application.