```
//JAVA PACKAGES
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/*

package shapes;
public class triangle
{
 double base,height,side;
 public double area(double base,double height)
 {
  return 0.5*base*height;
 }
 public double peri(double base,double height,double side)
 {
  return base+height+side;
 }
}




package shapes;
public class circle
{
 double radius;
 public double area(double radius)
 {
  return 3.14*radius*radius;
 }
 public double peri(double radius)
 {
  return 2*3.14*radius;
 }
}




package shapes;
public class square
{
 public double area(double side)
 {
  return side*side;
 }
 public double peri(double side)
 {
  return 4*side;
 }
```

```
}


*/




import java.util.*;
import shapes.square;
import shapes.circle;
import shapes.triangle;
class packages
{
 public static  void main(String args[])
 {
  String type;
  Scanner s=new Scanner (System.in);
  String choice;
  do
  {
   System.out.println("Enter  type of shape");
   type=s.next();
   if(type.equals("square"))
   {
    System.out.println("Enter side");
    double side=s.nextDouble();
    square a=new square();
    System.out.println("area of square"+a.area(side));
    System.out.println("perimeter of square is "+a.peri(side));
   }
   else if(type.equals("circle"))
   {
    System.out.println("Enter radius");
    double radius=s.nextDouble();
    circle b=new circle();
    System.out.println("area of circle"+b.area(radius));
    System.out.println("perimeter of circle"+b.peri(radius));
   }
   else if(type.equals("triangle"))
   {
    System.out.println("enter height");
    double height= s.nextDouble();
    System.out.println("enter base");
    double base=s.nextDouble();
    System.out.println("enter side");
    double side= s.nextDouble();
    triangle c=new triangle();
    System.out.println("area of triangle"+c.area(base,height));
    System.out.println("perimeter of triangle "+c.peri(base,height,side));
   }
  System.out.println("Enter whether you want to continue");
  choice=s.next();
```

```
  }while(choice.equals("y"));
 }
}



/*SAMPLE OUTPUT
welcome@gayathri:~/Desktop/javalab$ javac packages.java
welcome@gayathri:~/Desktop/javalab$ java packages
Enter  type of shape
square
Enter side
4
area of square16.0
perimeter of square is 16.0
Enter whether you want to continue
y
Enter  type of shape
circle
Enter radius
4.5
area of circle63.585
perimeter of circle28.26
Enter whether you want to continue
y
Enter  type of shape
triangle
enter height
4
enter base
5
enter side
3
area of triangle10.0
perimeter of triangle 12.0
Enter whether you want to continue
no
*/




import java.util.*;
import mypackconverter.currencyconverter;
import mypackconverter.distanceconvertor;
import mypackconverter.timeconverter;
class conversion
{
 public static void main(String args[])
 {
  String type,ch;
  Scanner s=new Scanner(System.in);
  do
  {
```

```
System.out.println("Enter type of conversion");
type=s.next();
if(type.equals("money"))
{
 currencyconverter c=new currencyconverter();
 System.out.println("Enter type of money you want to convert");
 String type1=s.next();
 System.out.println("Enter the type to which it needs to be converted");
 String type2=s.next();
 if(type1.equals("dollar") && type2.equals("rupee"))
 {
  System.out.println("Enter amount of dollar");
  double dollar=s.nextDouble();
  System.out.println("equivalent amount of dollar in rupees"+c.dollartoinr(dollar));
 }
 else if(type1.equals("rupee") &&type2.equals("dollar"))
 {
  System.out.println("Enter amount of rupees");
  double rupee=s.nextDouble();
  System.out.println("Equivalent amount of rupees in dollar"+c.inrtodollar(rupee));
 }
 else if(type1.equals("euro") &&type2.equals("rupee"))
 {
   System.out.println("Enter amount of euro");
   double euro=s.nextDouble();
   System.out.println("Equivalent amount of rupees in euro"+c.eurotoinr(euro));
 }
 else if(type1.equals("rupee")&&type2.equals("euro"))
 {
   System.out.println("Enter amount of rupee");
   double rupee=s.nextDouble();
   System.out.println("Equivalent  amount of rupee in euro"+c.inrtoeuro(rupee));
 }
 else if(type1.equals("yen") &&type2.equals("rupee"))
 {
   System.out.println("Enter amount of yen");
   double yen=s.nextDouble();
   System.out.println("equivalent amount of yen in rupees"+c.yentoinr(yen));
 }
 else if(type1.equals("rupee") &&type2.equals("yen"))
 {
   System.out.println("Enter amount of rupees");
   double rupee=s.nextDouble();
   System.out.println("equivalent amount of rupees in yen"+c.inrtoyen(rupee));
 }
}
else if(type.equals("distance"))
{
 distanceconvertor d=new distanceconvertor();
 System.out.println("Enter distance to be converted");
 String type1=s.next();
 System.out.println("Enter the type  to which it needs to be converted");
 String type2=s.next();
 if(type1.equals("meter") &&type2.equals("kilometer"))
```

```
 {
  System.out.println("Enter distance in meter ");
  double meter=s.nextDouble();
  System.out.println("equivalent distance in kilometer"+d.metertokm(meter));
 }
 else if (type1.equals("kilometer") &&type2.equals("meter"))
 {
  System.out.println("Enter distance in kilometer");
  double kilometer=s.nextDouble();
  System.out.println("equivalent distance in meter"+d.kmtometer(kilometer));
 }
 else if(type1.equals("miles") && type2.equals("kilometer"))
 {
  System.out.println("Enter distance in miles");
  double miles=s.nextDouble();
  System.out.println("equivalent distance in kilometers"+d.milestokm(miles));
 }
 else if(type1.equals("kilometer") && type2.equals("miles"))
 {
  System.out.println("Enter distance in kilometer");
  double kilometer=s.nextDouble();
  System.out.println(" equivalent distance in miles"+d.kmtomiles(kilometer));
 }
}
else if(type.equals("time"))
{
 timeconverter t=new timeconverter();
 System.out.println("Enter time to be converted");
 String type1= s.next();
 System.out.println("Enter the  type to which it needs to be converted");
 String type2=s.next();
 if (type1.equals("hour")&&type2.equals("minute"))
 {
  System.out.println("Enter time in hours");
  double hour=s.nextDouble();
  System.out.println("equivalent time in minutes"+t.hourtominute(hour));
 }
 else if(type1.equals("minute")&&type2.equals("hour"))
 {
  System.out.println("Enter time in minutes");
  double minute=s.nextDouble();
  System.out.println("equivalent time in hours"+t.minutetohour(minute));
 }
 else if(type1.equals("minute")&&type2.equals("second"))
 {
  System.out.println("Enter time in minute");
  double minute=s.nextDouble();
  System.out.println("equivalent time in seconds"+t.minutetosecond(minute));
 }
 else if(type1.equals("second") &&type2.equals("minute"))
 {
  System.out.println("Enter time in seconds");
  double second=s.nextDouble();
  System.out.println("equivalent time in minutes"+t.secondtominute(second));
```

```
   }
   }
   System.out.println("Enter choice ,whether you want to continue or not ");
   ch=s.next();
  }while(ch.equals("yes"));
 }
}
```

```
/* SAMPLE INPUT/OUTPUT
welcome@gayathri:~/Desktop/javalab$ javac conversion.java
welcome@gayathri:~/Desktop/javalab$ java conversion
Enter type of conversion
time
Enter time to be converted
hour
Enter the  type to which it needs to be converted
minute
Enter time in hours
5
equivalent time in minutes300.0
Enter choice ,whether you want to continue or not
yes
Enter type of conversion
distance
Enter distance to be converted
miles
Enter the type  to which it needs to be converted
kilometer
Enter distance in miles
10
equivalent distance in kilometers16.09
Enter choice ,whether you want to continue or not
yes
Enter type of conversion
money
Enter type of money you want to convert
yen
Enter the type to which it needs to be converted
rupee
Enter amount of yen
4
equivalent amount of yen in rupees5.970149253731343
Enter choice ,whether you want to continue or not
yes
Enter type of conversion
money
Enter type of money you want to convert
rupee
Enter the type to which it needs to be converted
euro
Enter amount of rupee
```

400
Equivalent amount of rupee in euro5.06393214330928
Enter choice ,whether you want to continue or not
no
*/

/*

```
package mypackconverter;
public class timeconverter
{
 public double hourtominute(double hour)
 {
  double minute=hour*60;
  return minute;
 }
 public double minutetohour(double minute)
 {
  double hour=minute/60;
  return hour;
 }
 public double minutetosecond(double minute)
 {
  double second=minute/60;
  return second;
 }
 public double secondtominute(double second)
 {
  double minute=second*60;
  return minute;
 }
}*/
```

/*

```
package mypackconverter;
public class distanceconvertor
{
 public double metertokm(double meter)
 {
  double km=meter/1000;
  return km;
 }
 public double kmtometer(double km)
 {
  double meter=km*1000;
  return meter;
 }
 public double milestokm(double miles)
 {
```

```
 double km=miles*1.609;
 return km;
 }
 public double kmtomiles(double km)
 {
 double miles=km/1.609;
 return miles;
 }
}

*/



/*

package mypackconverter;
public class currencyconverter
{
 public double inrtodollar(double rupees)
 {
 double dollar=rupees/71.74;
 return dollar;
 }
 public double dollartoinr(double dollar)
 {
 double inr=dollar*71.74;
 return inr;
 }
 public double eurotoinr(double euro)
 {
 double inr=euro*78.99;
 return inr;
 }
 public double inrtoeuro(double inr)
 {
 double euro=inr/78.99;
 return euro;
 }
 public double yentoinr(double yen)
 {
 double rupee=yen/0.67;
 return rupee;
 }
 public double inrtoyen(double inr)
 {
 double yen =inr*0.67;
 return yen;
 }
}


*/
```