Factory design

Factory data package

1).

```
package factorydata;
 public interface shape
{
    void area();
}
```

public class circle implements shape{

  @Override
public void area() {
    System.*out*.println("Area of circle is (pie)*(radius)*(radius)");
  }
}

public class rectangle implements shape{

  @Override
public void area() {
    System.*out*.println("Area of rectangle is (length)*(width)");
  }
}

public class square implements shape{

  @Override
public void area() {
    System.*out*.println("Area of square is (side)*(side)");
  }}
2).
Fact
ory
desi
gn

//design part//

```
import factorydata.rectangle;
import factorydata.shape; import
factorydata.square; import
factorydata.circle;

import java.util.Scanner;
  public class factorydesign {
public shape getshape(String sh)
    {
```

```
        if(sh.equalsIgnoreCase("SQUARE"))
        {
            return new square();
        }
        else if(sh.equalsIgnoreCase("RECTANGLE"))
        {
            return new rectangle();
        }
        else if(sh.equalsIgnoreCase("CIRCLE"))
        {
            return new circle();
        }           else
{           return
null;
        }
    }
        //Main program//
    public static void main(String[] args)
{           Scanner sc = new
Scanner(System.in);
        System.out.println("Enter your shape: ");
String sha1 = sc.nextLine();
factorydesign fd1 = new factorydesign();
shape sh1 = fd1.getshape(sha1);
sh1.area();
    }
}
```

Output:

```
Enter your shape:
square
Area of square is (side)*(side)


Process finished with exit code 0
```