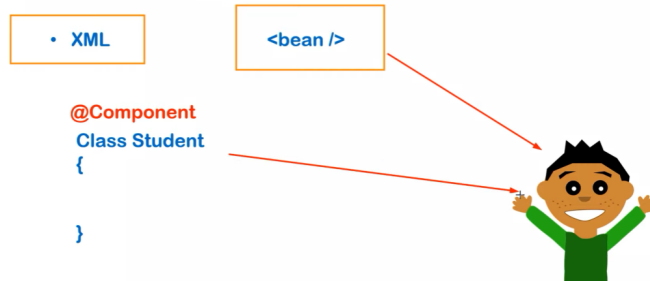- WHen we was using XML in that case we need to use bean class {with name} and IOC was creating object for that bean but now in case of stereotype annotation @component Will do same work we dont need to specify bean.
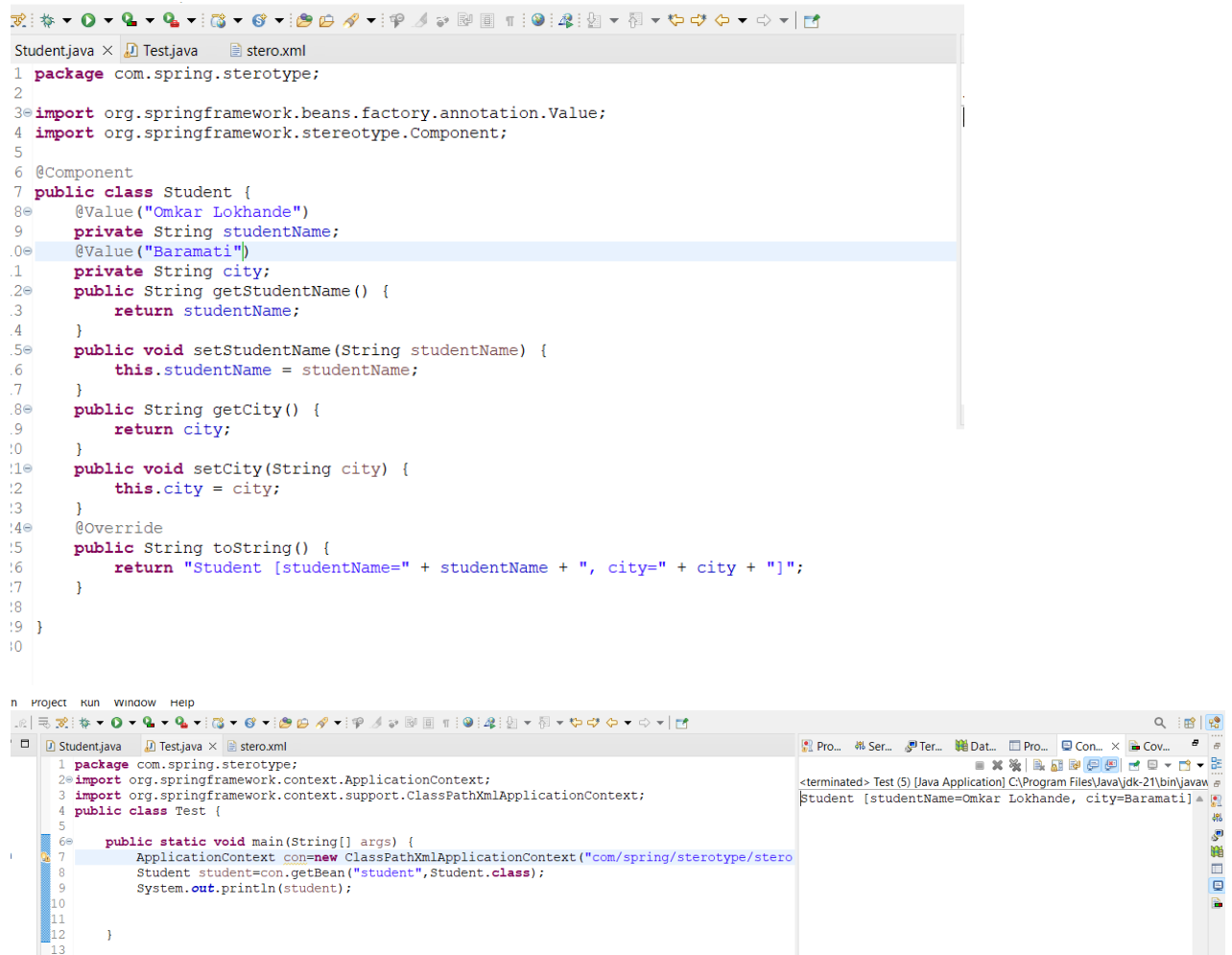

Just one thing we have to do is in configuration file we need to **specify package name**.

As we have specify @Component on class Student so IOC container will create abject of that class with camelcase. also we can specify it explicitly in component refer e.g 2

```xml
1<?xml version="1.0" encoding="UTF-8"?>
2<beans xmlns="http://www.springframework.org/schema/beans"
3    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
4
5    xmlns:context="http://www.springframework.org/schema/context"
6    xmlns:p="http://www.springframework.org/schema/p"
7
8
9    xsi:schemaLocation="http://www.springframework.org/schema/beans
10
11    http://www.springframework.org/schema/beans/spring-beans-3.0.xsd
12    http://www.springframework.org/schema/context
13    http://www.springframework.org/schema/context/spring-context.xsd ">
14
15
16    <context:component-scan base-package="com.spring.sterotype"/>
17
18
19
20
21
```
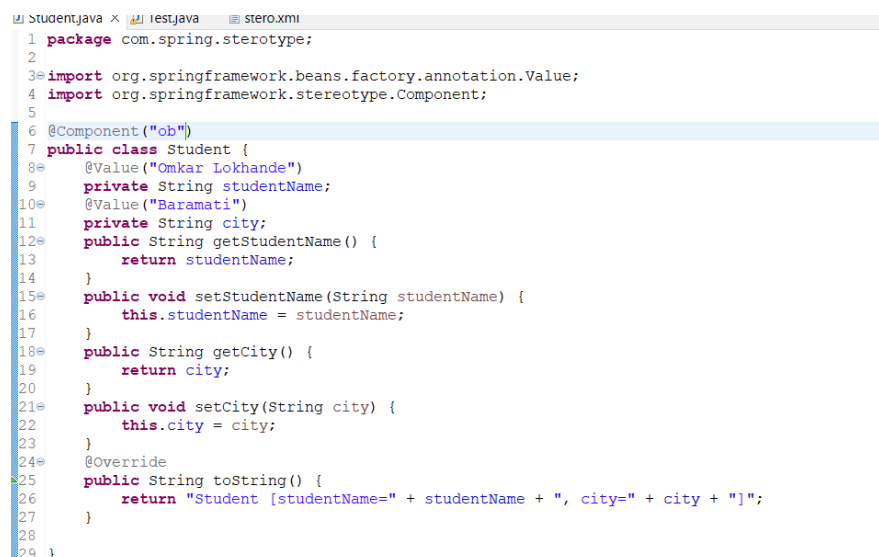
```java
package com.spring.sterotype;

import org.springframework.beans.factory.annotation.Value;
import org.springframework.stereotype.Component;

@Component
public class Student {
    @Value("Omkar Lokhande")
    private String studentName;
    @Value("Baramati")
    private String city;
    public String getStudentName() {
        return studentName;
    }
    public void setStudentName(String studentName) {
        this.studentName = studentName;
    }
    public String getCity() {
        return city;
    }
    public void setCity(String city) {
        this.city = city;
    }
    @Override
    public String toString() {
        return "Student [studentName=" + studentName + ", city=" + city + "]";
    }
}
```

```java
package com.spring.sterotype;
import org.springframework.context.ApplicationContext;
import org.springframework.context.support.ClassPathXmlApplicationContext;
public class Test {

    public static void main(String[] args) {
        ApplicationContext con=new ClassPathXmlApplicationContext("com/spring/sterotype/stero
        Student student=con.getBean("student",Student.class);
        System.out.println(student);

    }
}
```

```
<terminated> Test (5) [Java Application] C:\Program Files\Java\jdk-21\bin\javaw
Student [studentName=Omkar Lokhande, city=Baramati]
```

E.g 2 : explicitly specify obj name in @Component

```java
package com.spring.sterotype;

import org.springframework.beans.factory.annotation.Value;
import org.springframework.stereotype.Component;

@Component("ob")
public class Student {
    @Value("Omkar Lokhande")
    private String studentName;
    @Value("Baramati")
    private String city;
    public String getStudentName() {
        return studentName;
    }
    public void setStudentName(String studentName) {
        this.studentName = studentName;
    }
    public String getCity() {
        return city;
    }
    public void setCity(String city) {
        this.city = city;
    }
    @Override
    public String toString() {
        return "Student [studentName=" + studentName + ", city=" + city + "]";
    }
}
```

```
1 package com.spring.sterotype;
2 import org.springframework.context.ApplicationContext;
3 import org.springframework.context.support.ClassPathXmlApplicationContext;
4 public class Test {
5
6    public static void main(String[] args) {
7        ApplicationContext con=new ClassPathXmlApplicationContext("com/spring/sterotype/stero
8        Student student=con.getBean("ob",Student.class);
9        System.out.println(student);
0
1
```

<terminated> Test (5) [Java Application] C:\Program Files\Java\jdk-21\bin\javaw

Student [studentName=Omkar Lokhande, city=Baramati]

Collection using @Value

c/main/java/com/spring/sterotype/Student.java - Eclipse IDE

Project   Run   Window   Help

```
1 package com.spring.sterotype;
2
3 import java.util.List;
4
5 import org.springframework.beans.factory.annotation.Value;
6 import org.springframework.stereotype.Component;
7
8 @Component("ob")
9 public class Student {
10    @Value("Omkar Lokhande")
11    private String studentName;
12    @Value("Baramati")
13    private String city;
14    @Value("#{temp}")
15    private List<String> list1;
16    public String getStudentName() {
17        return studentName;
18    }
19    public void setStudentName(String studentName) {
20        this.studentName = studentName;
21    }
22    public String getCity() {
23        return city;
24    }
25    public void setCity(String city) {
26        this.city = city;
27    }
28
29    public List<String> getList1() {
30        return list1;
31    }
32    public void setList1(List<String> list1) {
33        this.list1 = list1;
34    }
35    @Override
36    public String toString() {
37        return "Student [studentName=" + studentName + ", city=" + city + "]";
38    }
39
```

```
Student.java    Test.java    stero.xml ×
 1 <?xml version="1.0" encoding="UTF-8"?>
 2 <beans xmlns="http://www.springframework.org/schema/beans"
 3     xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 4
 5     xmlns:context="http://www.springframework.org/schema/context"
 6     xmlns:p="http://www.springframework.org/schema/p"
 7
 8     xmlns:util="http://www.springframework.org/schema/util"
 9
10
11     xsi:schemaLocation="http://www.springframework.org/schema/beans
12
13     http://www.springframework.org/schema/beans/spring-beans-3.0.xsd
14     http://www.springframework.org/schema/context
15     http://www.springframework.org/schema/context/spring-context.xsd
16
17
18      http://www.springframework.org/schema/util
19      http://www.springframework.org/schema/util/spring-util.xsd ">
20
21
22
23
24     <context:component-scan base-package="com.spring.sterotype"/>
25
26
27        <util:list list-class="java.util.ArrayList" id="temp">
28        <value>Mumbai</value>
29        <value>Pune</value>
30        <value>Satara</value>
31
32
33      </util:list >
```

c/main/java/com/spring/sterotype/Test.java - Eclipse IDE

Project   Run   Window   Help

```
Student.java    Test.java ×    stero.xml
 1 package com.spring.sterotype;
 2 import org.springframework.context.ApplicationContext;
 3 import org.springframework.context.support.ClassPathXmlApplicationContext;
 4 public class Test {
 5
 6     public static void main(String[] args) {
 7         ApplicationContext con=new ClassPathXmlApplicationContext("com/spring/sterotype/stero
 8         Student student=con.getBean("ob",Student.class);
 9         System.out.println(student);
10         System.out.print(student.getList1());
11
12     }
13
14 }
15
```

<terminated> Test (5) [Java Application] C:\Program Files\Java\jdk-21\bin\java
Student [studentName=Omkar Lokhande, city=Baramati]
[Mumbai, Pune, Satara]