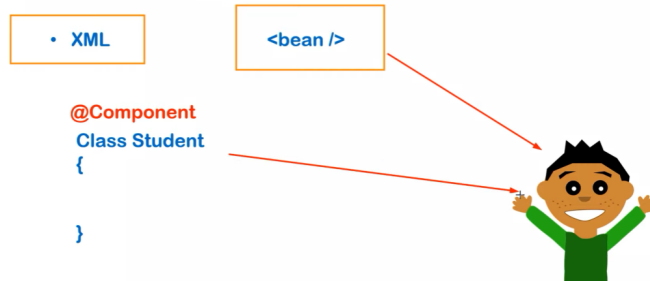


- When we were using XML in that case we need to use bean class {with name} and IOC was creating object for that bean but now in case of stereotype annotation @component Will do same work we don't need to specify bean.

Stereotype Annotations



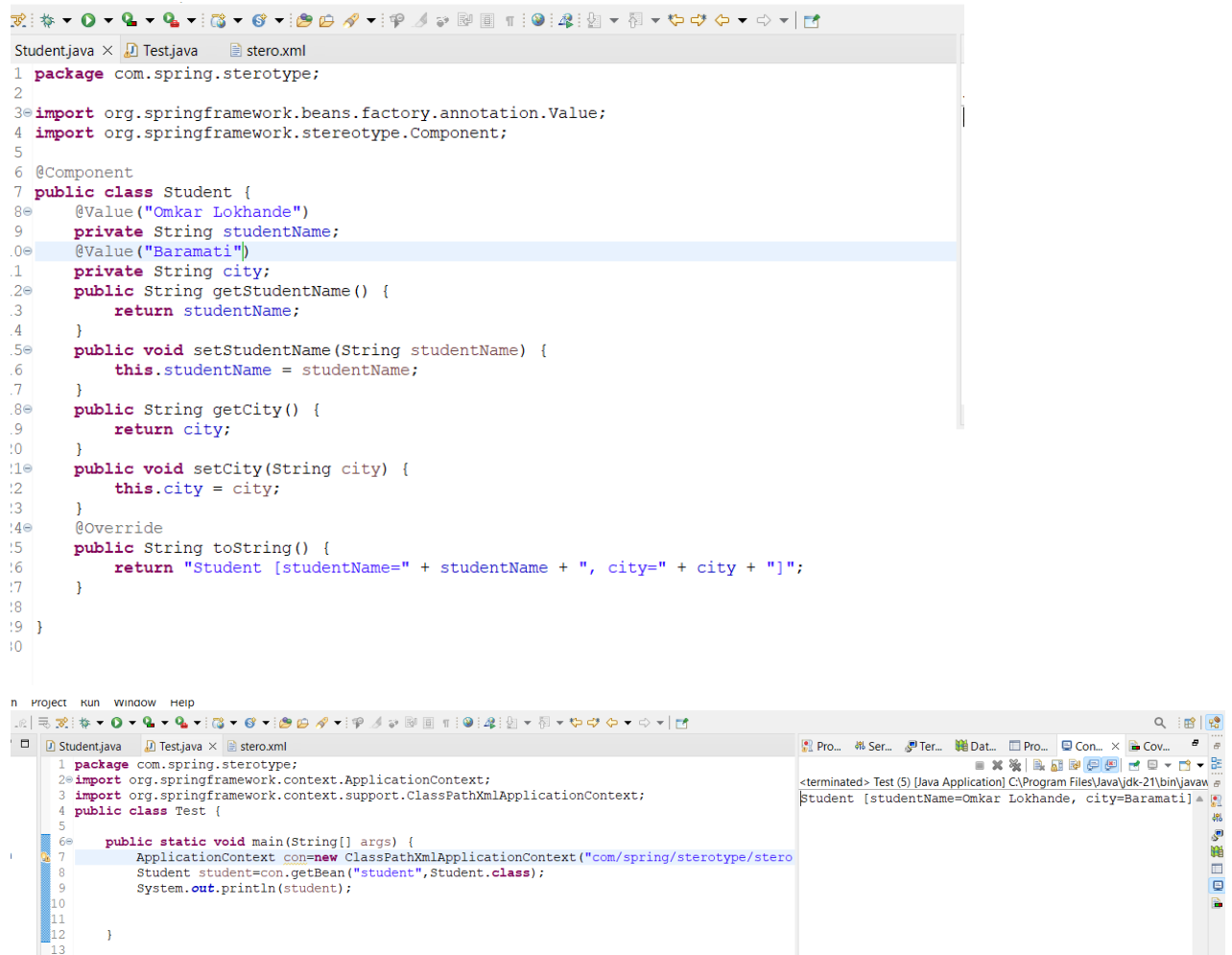
Just one thing we have to do is in configuration file we need to **specify package name**.

 `<context:component-scan base-package=" " />`

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

```

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         http://www.springframework.org/schema/beans/spring-beans-3.0.xsd
11         http://www.springframework.org/schema/context
12         http://www.springframework.org/schema/context/spring-context.xsd ">
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16     <context:component-scan base-package="com.spring.sterotype"/>
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```

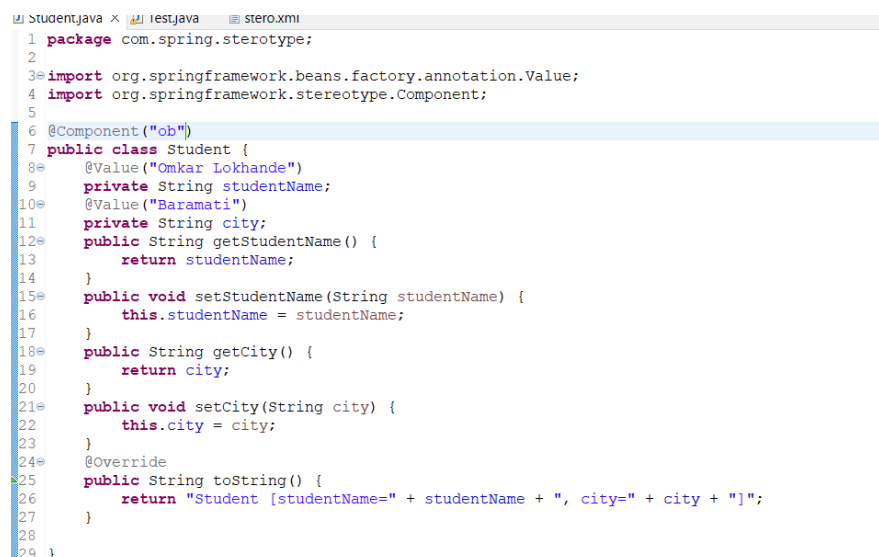


```
Student.java x Test.java x stero.xml
1 package com.spring.sterotype;
2
3 import org.springframework.beans.factory.annotation.Value;
4 import org.springframework.stereotype.Component;
5
6 @Component
7 public class Student {
8     @Value("Omkar Lokhande")
9     private String studentName;
10    @Value("Baramati")
11    private String city;
12    public String getStudentName() {
13        return studentName;
14    }
15    public void setStudentName(String studentName) {
16        this.studentName = studentName;
17    }
18    public String getCity() {
19        return city;
20    }
21    public void setCity(String city) {
22        this.city = city;
23    }
24    @Override
25    public String toString() {
26        return "Student [studentName=" + studentName + ", city=" + city + "]";
27    }
28 }
29

n Project Run Window Help
Student.java x Test.java x 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/steroxml");
8         Student student=con.getBean("student",Student.class);
9         System.out.println(student);
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Pro... Ser... Ter... Dat... Pro... Con... Cov...
<terminated> Test (5) [Java Application] C:\Program Files\Java\jdk-21\bin\javaw.exe
Student [studentName=Omkar Lokhande, city=Baramati]
```

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



```
Student.java x Test.java x stero.xml
1 package com.spring.sterotype;
2
3 import org.springframework.beans.factory.annotation.Value;
4 import org.springframework.stereotype.Component;
5
6 @Component("ob")
7 public class Student {
8     @Value("Omkar Lokhande")
9     private String studentName;
10    @Value("Baramati")
11    private String city;
12    public String getStudentName() {
13        return studentName;
14    }
15    public void setStudentName(String studentName) {
16        this.studentName = studentName;
17    }
18    public String getCity() {
19        return city;
20    }
21    public void setCity(String city) {
22        this.city = city;
23    }
24    @Override
25    public String toString() {
26        return "Student [studentName=" + studentName + ", city=" + city + "]";
27    }
28 }
29
```

```
Student.java  Test.java  x  @stero.xml
1 package com.spring.stereotype;
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/stereotype/stero
8         Student student=con.getBean("ob",Student.class);
9         System.out.println(student);
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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    xsi:schemaLocation="http://www.springframework.org/schema/beans
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        http://www.springframework.org/schema/util
16        http://www.springframework.org/schema/util/spring-util.xsd ">
17
18    <context:component-scan base-package="com.spring.sterotype"/>
19
20    <util:list list-class="java.util.ArrayList" id="temp">
21        <value>Mumbai</value>
22        <value>Pune</value>
23        <value>Satara</value>
24    </util:list>

```

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

Project Run Window Help

```

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/steroxml.xml");
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]

```