

ways of injecting data :

1) Primitive type

```
1 Primitive Types:
2 <property name="">
3   <value>value</value>
4 </property>
5
6 <property name="" value="" />
7
8
9 <bean p:property:Value />
10
```

ig/Firstspring/Student.java - Eclipse IDE

ect Run Window Help

```
1 B.java  ref.xml  Testjava  elementasat...  elementasat...  omkar.xml  omkar.xml  usingpschema...  Student.java x  »2
5  private String studentName;
6  private String studentAddress;
7  public int getStudentId() {
8      return studentId;
9  }
10 public void setStudentId(int studentId) {
11     this.studentId = studentId;
12 }
13 public String getStudentName() {
14     return studentName;
15 }
16 public void setStudentName(String studentName) {
17     this.studentName = studentName;
18 }
19 public String getStudentAddress() {
20     return studentAddress;
21 }
22 public void setStudentAddress(String studentAddress) {
23     this.studentAddress = studentAddress;
24 }
25 public Student(int studentId, String studentName, String studentAddress) {
26     super();
27     this.studentId = studentId;
28     this.studentName = studentName;
29     this.studentAddress = studentAddress;
30 }
31 public Student() {
32     super();
33     // TODO Auto-generated constructor stub
34 }
35 @Override
36 public String toString() {
37     return "Student [studentId=" + studentId + ", studentName=" + studentName + ", studentAddress=" + studentAddress + "]";
38 }
```

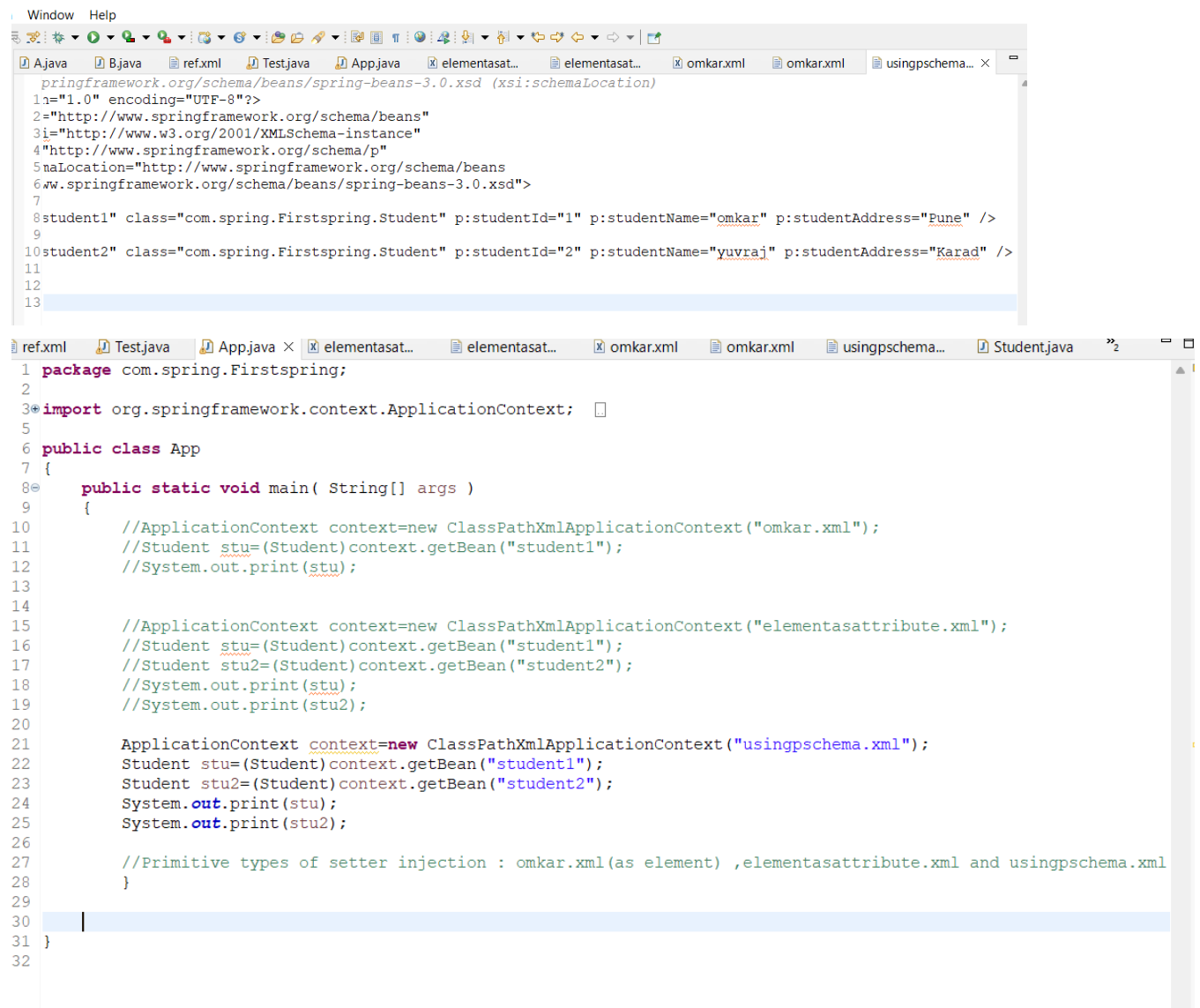
sattribute.xml - Eclipse IDE

```
Window  Help
http://www.springframework.org/schema/beans/spring-beans-3.0.xsd (xsi:schemaLocation)
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  xmlns:p="http://www.springframework.org/schema/p"
5  xsi:schemaLocation="http://www.springframework.org/schema/beans
6    http://www.springframework.org/schema/beans/spring-beans-3.0.xsd">
7
8<bean name="student1" class="com.spring.Firstspring.Student">
9<property name="studentId" value="1"/>
10<property name="studentName" value="aniket"/>
11<property name="studentAddress" value="Mumbai"/>
12</bean>
13
14<bean name="student2" class="com.spring.Firstspring.Student">
15<property name="studentId" value="2"/>
16<property name="studentName" value="shubham"/>
17<property name="studentAddress" value="Shirwal"/>
18</bean>
19
20</beans>
21
22
```

ar.xml - Eclipse IDE

```
Run  Window  Help
http://www.springframework.org/schema/beans/spring-beans-3.0.xsd (xsi:schemaLocation)
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  xmlns:p="http://www.springframework.org/schema/p"
5  xsi:schemaLocation="http://www.springframework.org/schema/beans
6    http://www.springframework.org/schema/beans/spring-beans-3.0.xsd">
7
8<bean name="student1" class="com.spring.Firstspring.Student">
9<property name="studentId">
10<value>1</value>
11</property>
12
13<property name="studentName">
14<value>Omkar</value>
15</property>
16
17<property name="studentAddress">
18<value>Pune</value>
19</property>
20
21</bean>
22
23</beans>
```

chema.xml - Eclipse IDE



The screenshot shows the Eclipse IDE interface. The top toolbar contains various icons for file operations and development tools. The 'Window' menu is open, showing a list of open files: A.java, B.java, ref.xml, Test.java, App.java, elementasat..., elementasat..., omkar.xml, omkar.xml, usingpschema..., and Student.java. The main editor area displays the content of 'omkar.xml' and 'Student.java'.

The XML file 'omkar.xml' contains the following code:

```
1<?xml version="1.0" encoding="UTF-8"?>
2<beans xmlns="http://www.springframework.org/schema/beans"
3      xsi:schemaLocation="http://www.springframework.org/schema/beans
4      http://www.springframework.org/schema/beans
5      http://www.springframework.org/schema/beans/spring-beans-3.0.xsd">
6
7
8  <bean class="com.spring.Firstspring.Student" p:studentId="1" p:studentName="omkar" p:studentAddress="Pune" />
9
10 <bean class="com.spring.Firstspring.Student" p:studentId="2" p:studentName="yuvraj" p:studentAddress="Karad" />
11
12
13
```

The Java file 'Student.java' contains the following code:

```
1 package com.spring.Firstspring;
2
3 import org.springframework.context.ApplicationContext;
4
5
6 public class App
7 {
8     public static void main( String[] args )
9     {
10         //ApplicationContext context=new ClassPathXmlApplicationContext("omkar.xml");
11         //Student stu=(Student)context.getBean("student1");
12         //System.out.print(stu);
13
14         //ApplicationContext context=new ClassPathXmlApplicationContext("elementasattribute.xml");
15         //Student stu=(Student)context.getBean("student1");
16         //Student stu2=(Student)context.getBean("student2");
17         //System.out.print(stu);
18         //System.out.print(stu2);
19
20         ApplicationContext context=new ClassPathXmlApplicationContext("usingpschema.xml");
21         Student stu=(Student)context.getBean("student1");
22         Student stu2=(Student)context.getBean("student2");
23         System.out.print(stu);
24         System.out.print(stu2);
25
26         //Primitive types of setter injection : omkar.xml(as element) ,elementasattribute.xml and usingpschema.xml
27     }
28 }
29
30
31
32
```

2)Collection type :

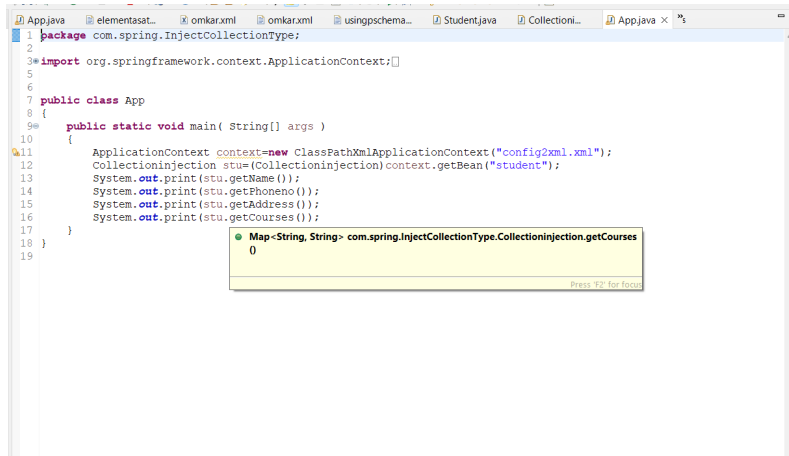
Spring/InjectCollectionType/CollectionInjection.java - Eclipse IDE

Run Window Help

```
java | elementasat... | elementasat... | omkar.xml | omkar.xml | usingpschema... | Student.java | Collectioni... x "4
public class CollectionInjection {
    private String name;
    private List<String> phoneno;
    private Set<String> address;
    private Map<String, String> courses;
    public String getName() {
        return name;
    }
    public void setName(String name) {
        this.name = name;
    }
    public List<String> getPhoneno() {
        return phoneno;
    }
    public void setPhoneno(List<String> phoneno) {
        this.phoneno = phoneno;
    }
    public Set<String> getAddress() {
        return address;
    }
    public void setAddress(Set<String> address) {
        this.address = address;
    }
    public Map<String, String> getCourses() {
        return courses;
    }
    public void setCourses(Map<String, String> courses) {
        this.courses = courses;
    }
    public CollectionInjection(String name, List<String> phoneno, Set<String> address, Map<String, String> courses) {
        super();
        this.name = name;
        this.phoneno = phoneno;
        this.address = address;
    }
}
```

```
8 <!-- Bean name= Student class= com.Spring.InjectCollectionType.CollectionInjection -->
```

```
9
10 <property name="name" value="omkar"/>
11 <property name="phoneno" >
12 <list>
13 <value>9309944683</value>
14 <value>9309344683</value>
15 <value>9309944555</value>
16 <value>9303444683</value>
17
18 </list>
19 </property>
20
21 <property name="address">
22 <set>
23 <value>mumbai</value>
24 <value>pune</value>
25 <value>nashik</value>
26 <value>nagpur</value>
27 </set>
28 </property>
29
30 <property name="courses">
31 <map>
32 <entry key="java" value="1 year"/>
33 <entry key="python" value="2 year"/>
34 <entry key="C++" value="1 year"/>
35 <entry key="data Science" value="2 year"/>
36
37 </map>
38 </property>
39
40
```



3)Injecting reference type:

