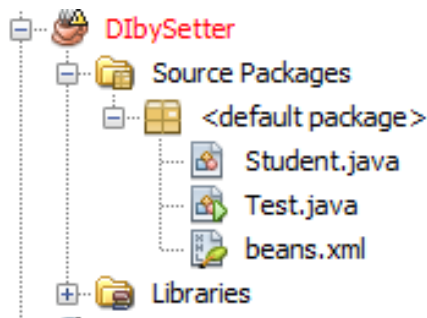**Ex 13: Create a Java application to make use of Dependency injection using Setter methods.**

Step 1:

Student.java

```
public class Student {

private String name;


public String getName(){

   return name;

}


public void setName(String name){

   this.name=name;

}


public void displayInfo(){

   System.out.println("Hello:" +name);

}
}
```

Beans.xml

```
<?xml version="1.0" encoding="UTF-8"?>

<beans

    xmlns="http://www.springframework.org/schema/beans"

    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"

    xmlns:p="http://www.springframework.org/schema/p"

    xsi:schemaLocation="http://www.springframework.org/schema/beans
```

http://www.springframework.org/schema/beans/spring-beans-3.0.xsd">


```xml
  <bean id="studentbean" class="Student">
    <property name="name" value="Vikas"/>
  </bean>
</beans>
```

Test.java

```java
import org.springframework.context.ApplicationContext;
import org.springframework.context.support.ClassPathXmlApplicationContext;
public class Test {
   public static void main(String args[]){
      ApplicationContext context = new ClassPathXmlApplicationContext("beans.xml");
      Student obj;
      obj = (Student) context.getBean("studentbean");
      obj.getName();
      obj.displayInfo();
   }
}
```
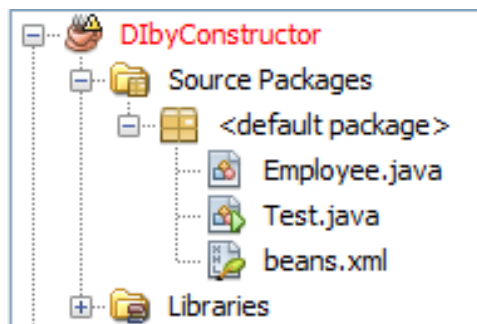
Output:

Hello:Vikas

Ex 14: Create a Java application to make use of Dependency injection using Constructor.

Step 1:

Employee.java

```java
public class Employee {

    private int id;
    private String name;

    public Employee() {
        System.out.println("def cons");}

    public Employee(int id) {
        this.id = id;}

    public Employee(String name) {
        this.name = name;}

    public Employee(int id, String name) {
        this.id = id;
        this.name = name;
    }
    void show(){
        System.out.println("ID="+id+ " & Name="+name);
    }
}
```

Beans.xml

```xml
<?xml version="1.0" encoding="UTF-8"?>
<beans
    xmlns="http://www.springframework.org/schema/beans"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xmlns:p="http://www.springframework.org/schema/p"
    xsi:schemaLocation="http://www.springframework.org/schema/beans
    http://www.springframework.org/schema/beans/spring-beans-3.0.xsd">

  <bean id="e" class="Employee">
    <constructor-arg value="10" type="int"/>
    <constructor-arg value="Vikas" />
  </bean>

  </beans>
```

Test.java

```java
import org.springframework.beans.factory.BeanFactory;
import org.springframework.beans.factory.xml.XmlBeanFactory;
import org.springframework.core.io.*;

public class Test {
  public static void main(String[] args) {
    Resource r=new ClassPathResource("beans.xml");
    BeanFactory factory=new XmlBeanFactory(r);

    Employee s=(Employee)factory.getBean("e");
    s.show();

  }
}
```