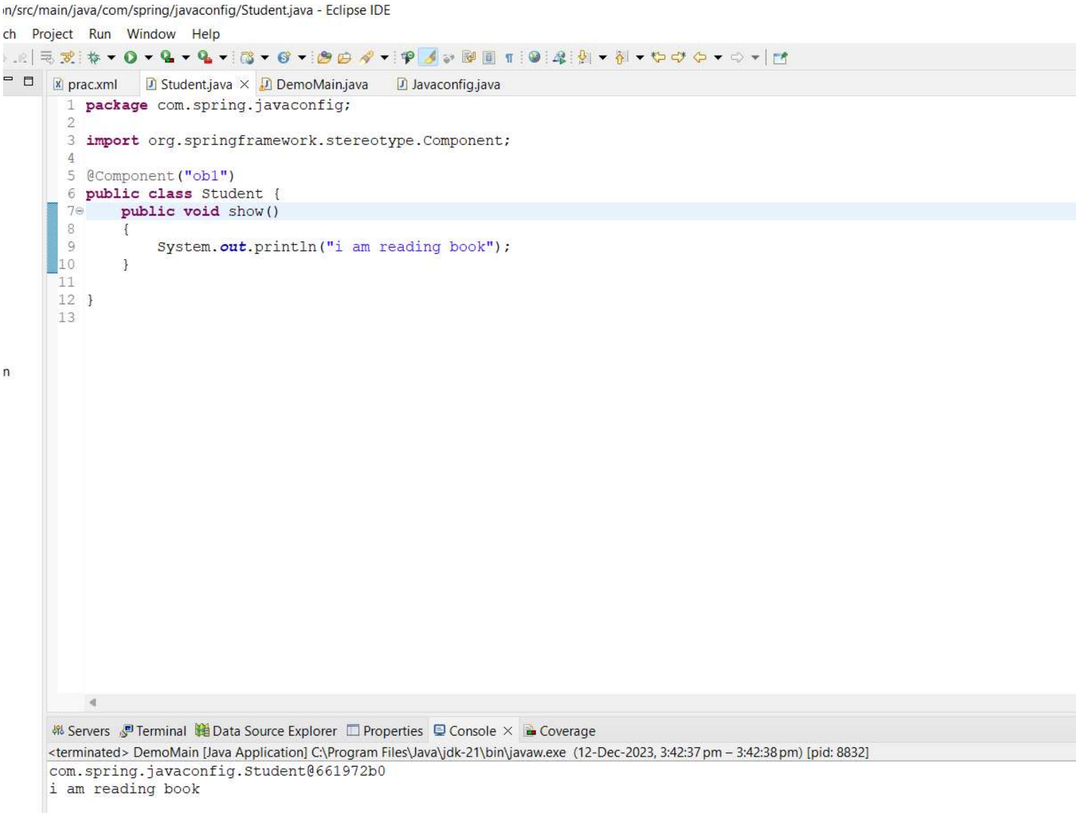
- **Remove XML or Without XML Configuration** : -

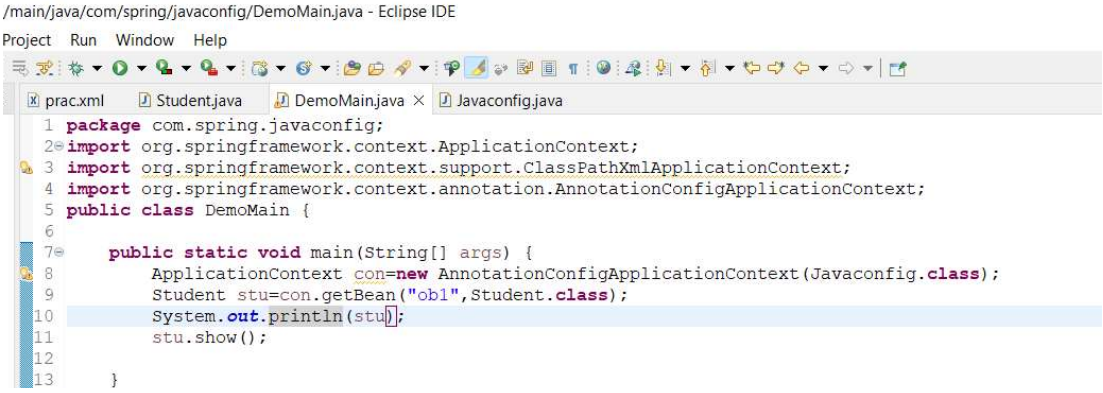
1) @Configuration
2) @ComponentScan
3) @Bean

Previously when we was creating application we was using XML file that was provide data and object to IOC container but now in this example we are not using XML anymore we can do it with above notations.

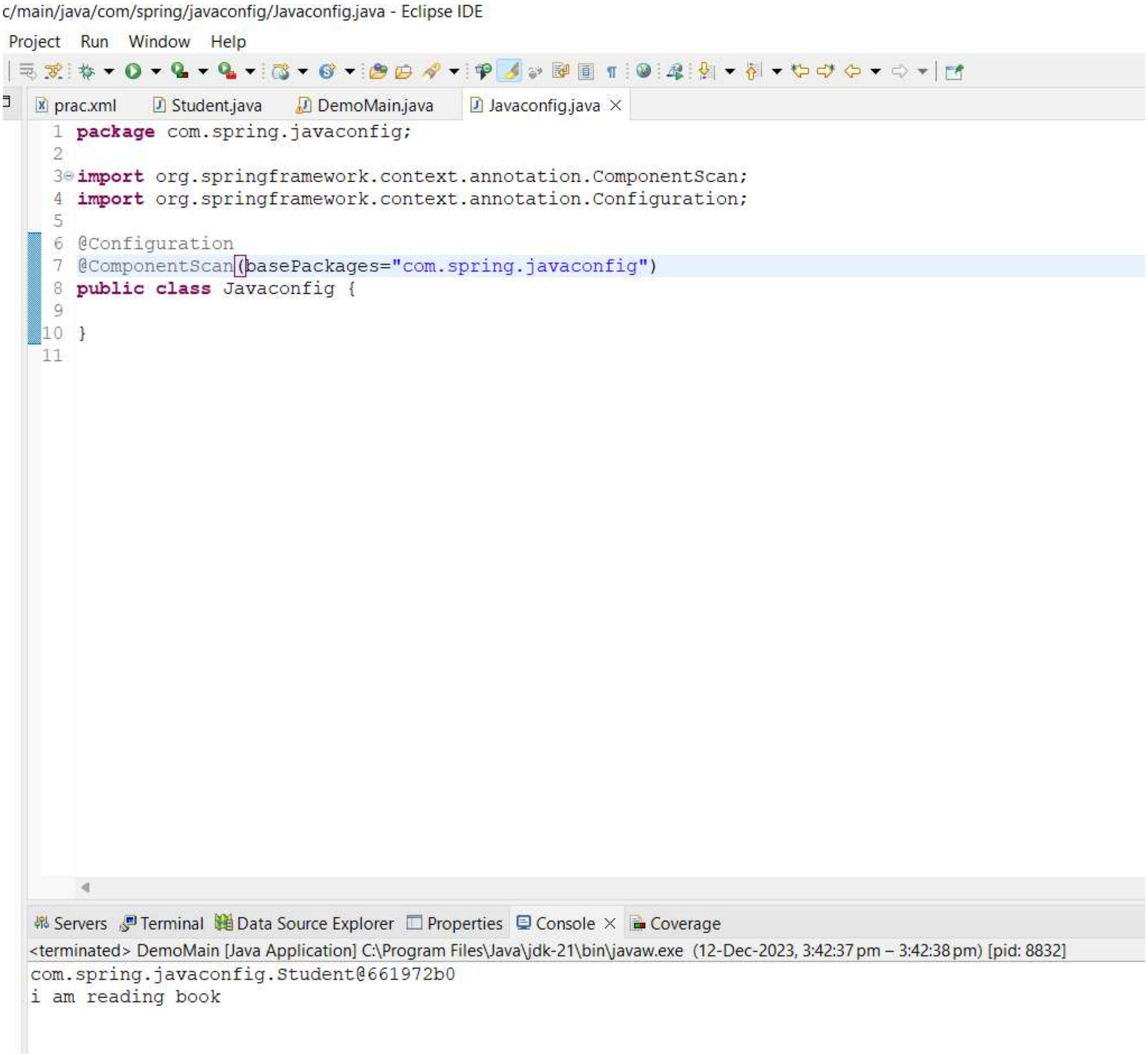


```
package com.spring.javaconfig;

import org.springframework.stereotype.Component;

@Component("ob1")
public class Student {
    public void show()
    {
        System.out.println("i am reading book");
    }

}
```

```
<terminated> DemoMain [Java Application] C:\Program Files\Java\jdk-21\bin\javaw.exe  (12-Dec-2023, 3:42:37 pm – 3:42:38 pm) [pid: 8832]
com.spring.javaconfig.Student@661972b0
i am reading book
```



```
package com.spring.javaconfig;
import org.springframework.context.ApplicationContext;
import org.springframework.context.support.ClassPathXmlApplicationContext;
import org.springframework.context.annotation.AnnotationConfigApplicationContext;
public class DemoMain {

    public static void main(String[] args) {
        ApplicationContext con=new AnnotationConfigApplicationContext(Javaconfig.class);
        Student stu=con.getBean("ob1",Student.class);
        System.out.println(stu);
        stu.show();


    }
```

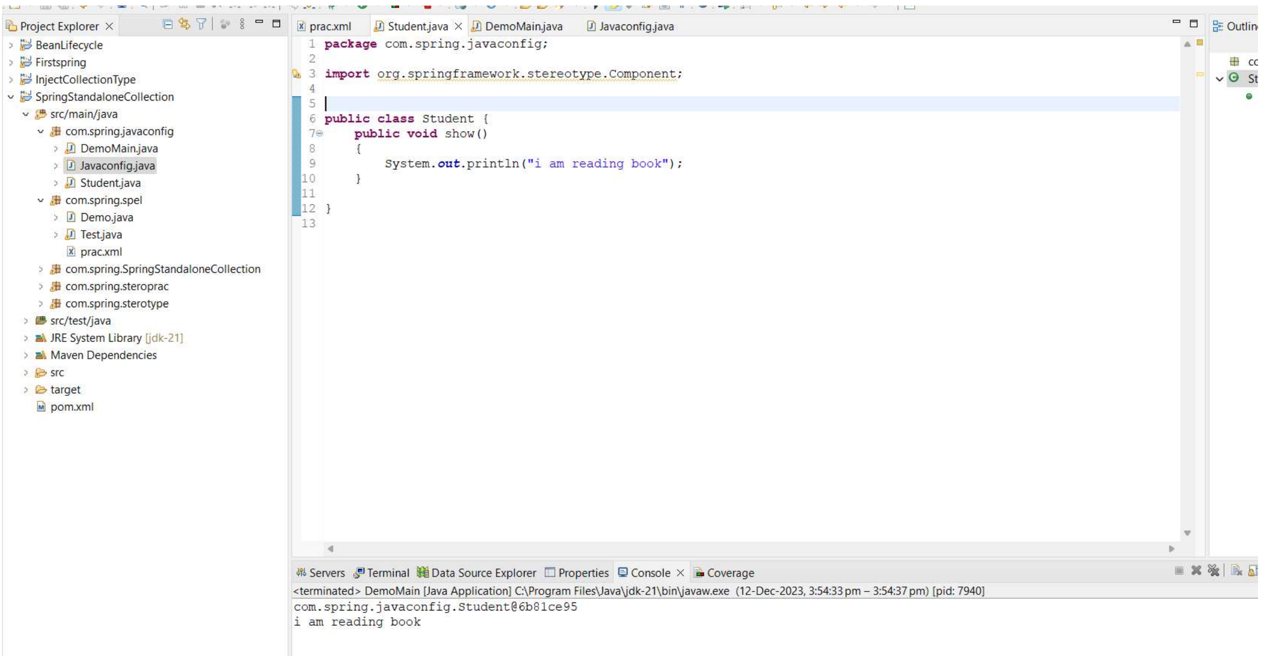


```java
package com.spring.javaconfig;

import org.springframework.context.annotation.ComponentScan;
import org.springframework.context.annotation.Configuration;

@Configuration
@ComponentScan(basePackages="com.spring.javaconfig")
public class Javaconfig {

}
```

```
<terminated> DemoMain [Java Application] C:\Program Files\Java\jdk-21\bin\javaw.exe (12-Dec-2023, 3:42:37 pm – 3:42:38 pm) [pid: 8832]
com.spring.javaconfig.Student@661972b0
i am reading book
```

@Bean : it is written above method that is returning object to indicate that object is given to IOC container.with the help of bean notation object will go to  the IOC container.

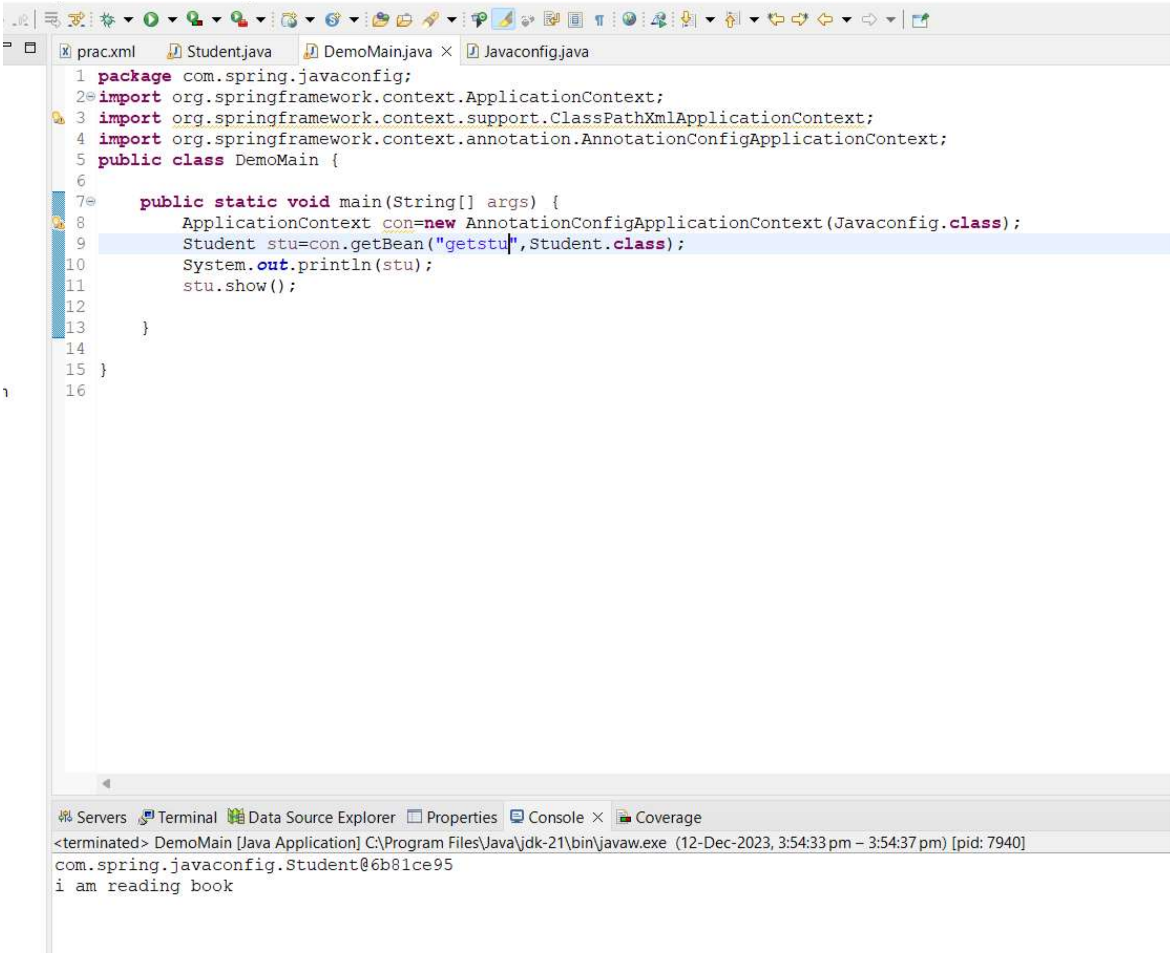
Now u dont need to specify @component annotation



```
package com.spring.javaconfig;

import org.springframework.stereotype.Component;


public class Student {
    public void show()
    {
        System.out.println("i am reading book");
    }

}
```

<terminated> DemoMain [Java Application] C:\Program Files\Java\jdk-21\bin\javaw.exe (12-Dec-2023, 3:54:33 pm – 3:54:37 pm) [pid: 7940]

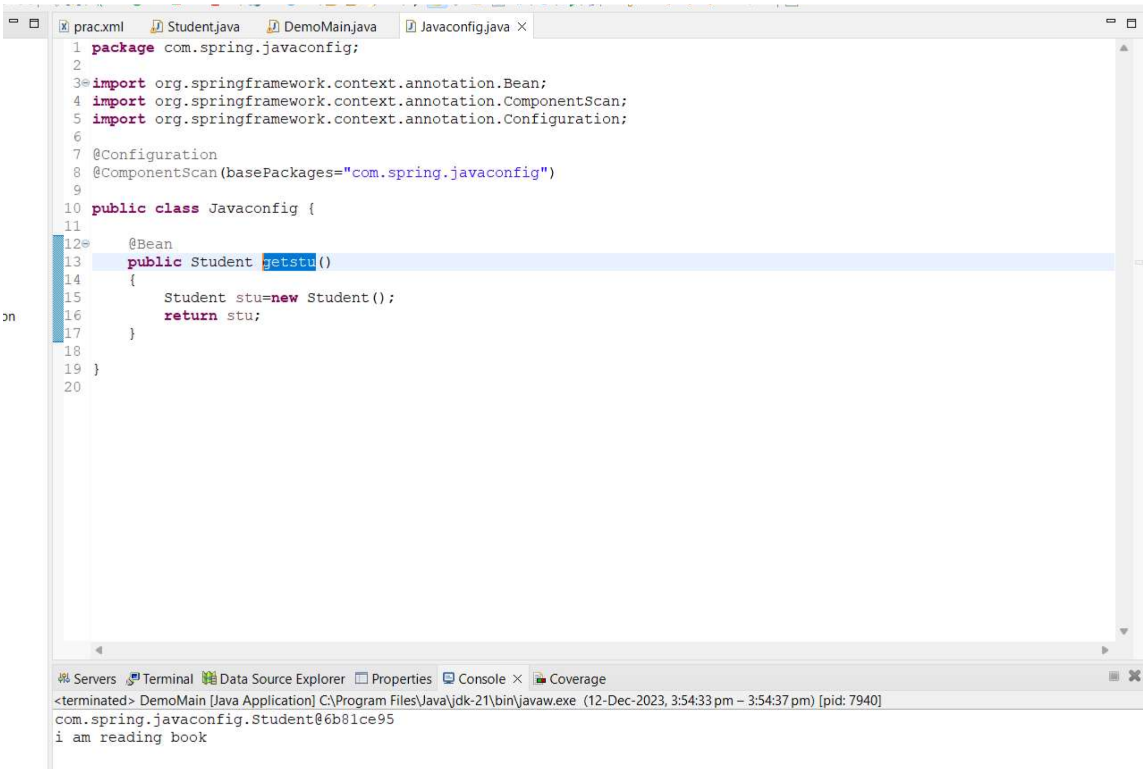
```
com.spring.javaconfig.Student@6b81ce95
i am reading book
```



```
package com.spring.javaconfig;
import org.springframework.context.ApplicationContext;
import org.springframework.context.support.ClassPathXmlApplicationContext;
import org.springframework.context.annotation.AnnotationConfigApplicationContext;
public class DemoMain {

    public static void main(String[] args) {
        ApplicationContext con=new AnnotationConfigApplicationContext(Javaconfig.class);
        Student stu=con.getBean("getstu",Student.class);
        System.out.println(stu);
        stu.show();

    }

}
```

<terminated> DemoMain [Java Application] C:\Program Files\Java\jdk-21\bin\javaw.exe (12-Dec-2023, 3:54:33 pm – 3:54:37 pm) [pid: 7940]

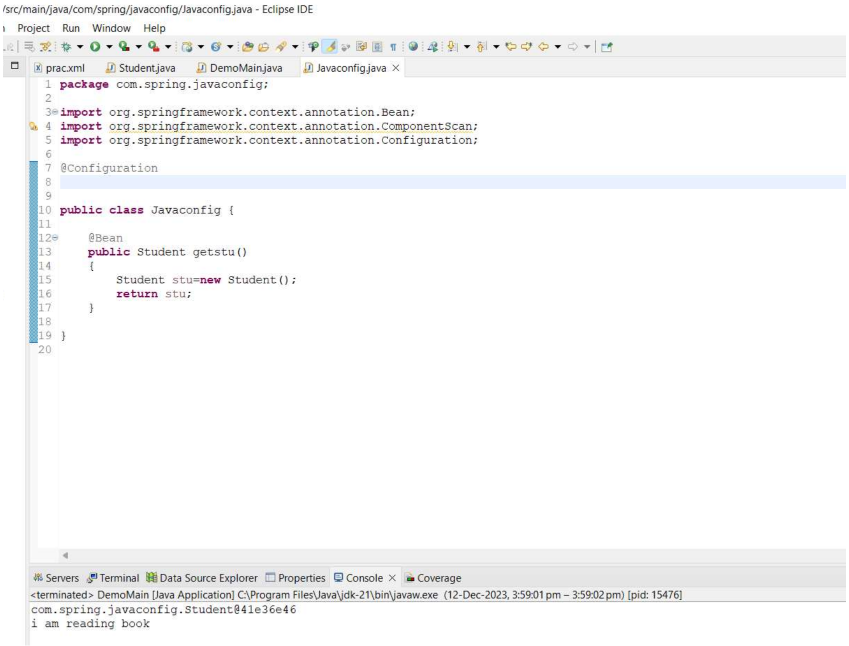
```
com.spring.javaconfig.Student@6b81ce95
i am reading book
```



```java
package com.spring.javaconfig;

import org.springframework.context.annotation.Bean;
import org.springframework.context.annotation.ComponentScan;
import org.springframework.context.annotation.Configuration;

@Configuration
@ComponentScan(basePackages="com.spring.javaconfig")

public class Javaconfig {

    @Bean
    public Student getstu()
    {
        Student stu=new Student();
        return stu;
    }

}

```

```
<terminated> DemoMain [Java Application] C:\Program Files\Java\jdk-21\bin\javaw.exe  (12-Dec-2023, 3:54:33 pm – 3:54:37 pm) [pid: 7940]
com.spring.javaconfig.Student@6b81ce95
i am reading book
```

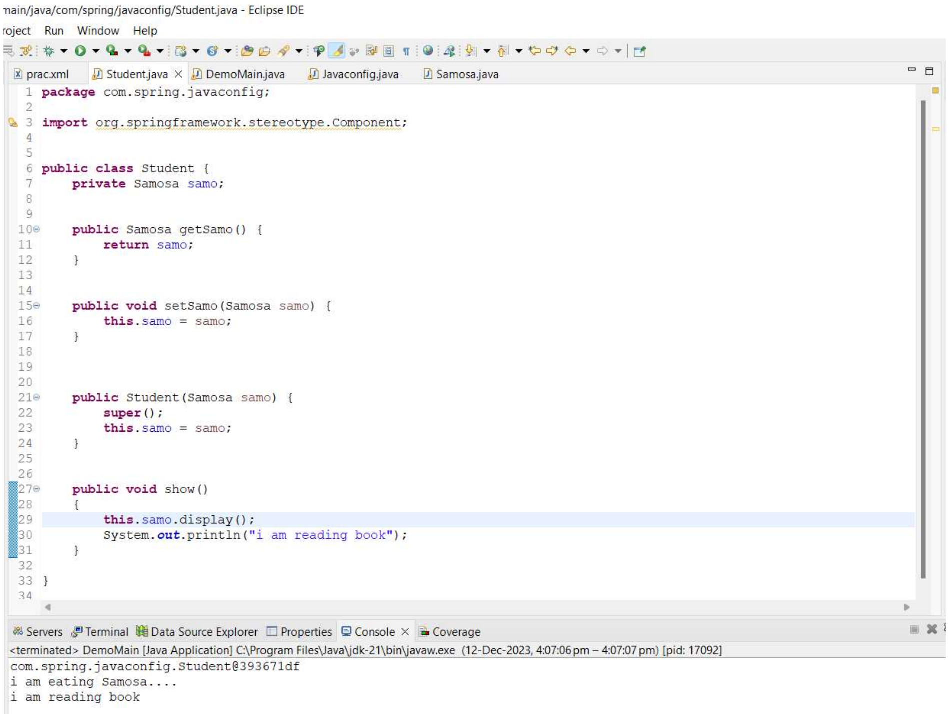
Even you can run it without @ComponentScan Annotation



```java
package com.spring.javaconfig;

import org.springframework.context.annotation.Bean;
import org.springframework.context.annotation.ComponentScan;
import org.springframework.context.annotation.Configuration;

@Configuration


public class Javaconfig {

    @Bean
    public Student getstu()
    {
        Student stu=new Student();
        return stu;
    }

}

```

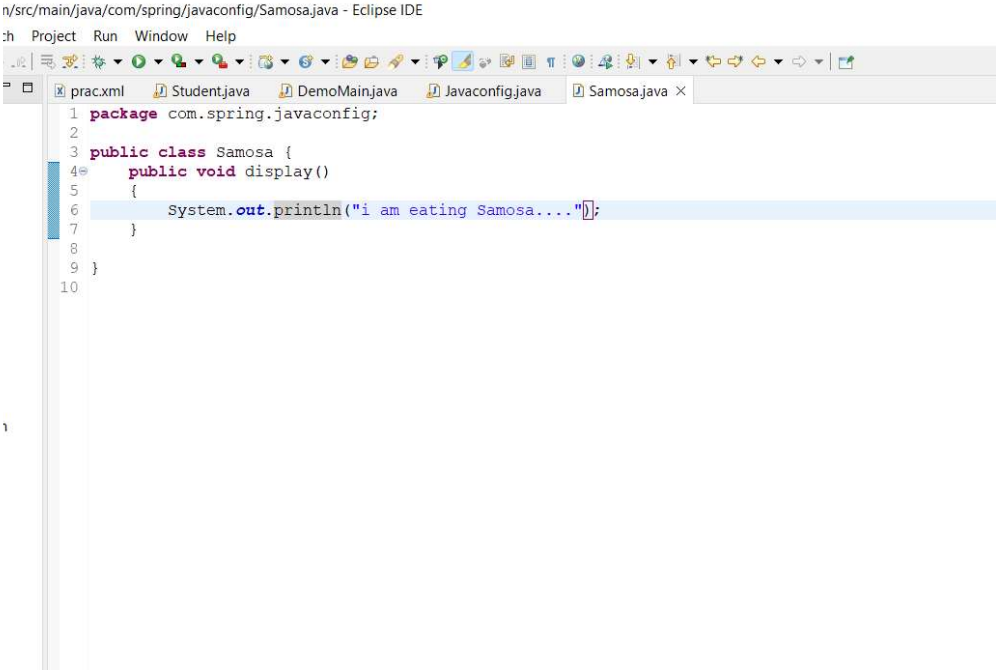
```
<terminated> DemoMain [Java Application] C:\Program Files\Java\jdk-21\bin\javaw.exe  (12-Dec-2023, 3:59:01 pm – 3:59:02 pm) [pid: 15476]
com.spring.javaconfig.Student@41e36e46
i am reading book
```

# INjecting dependencies  : -

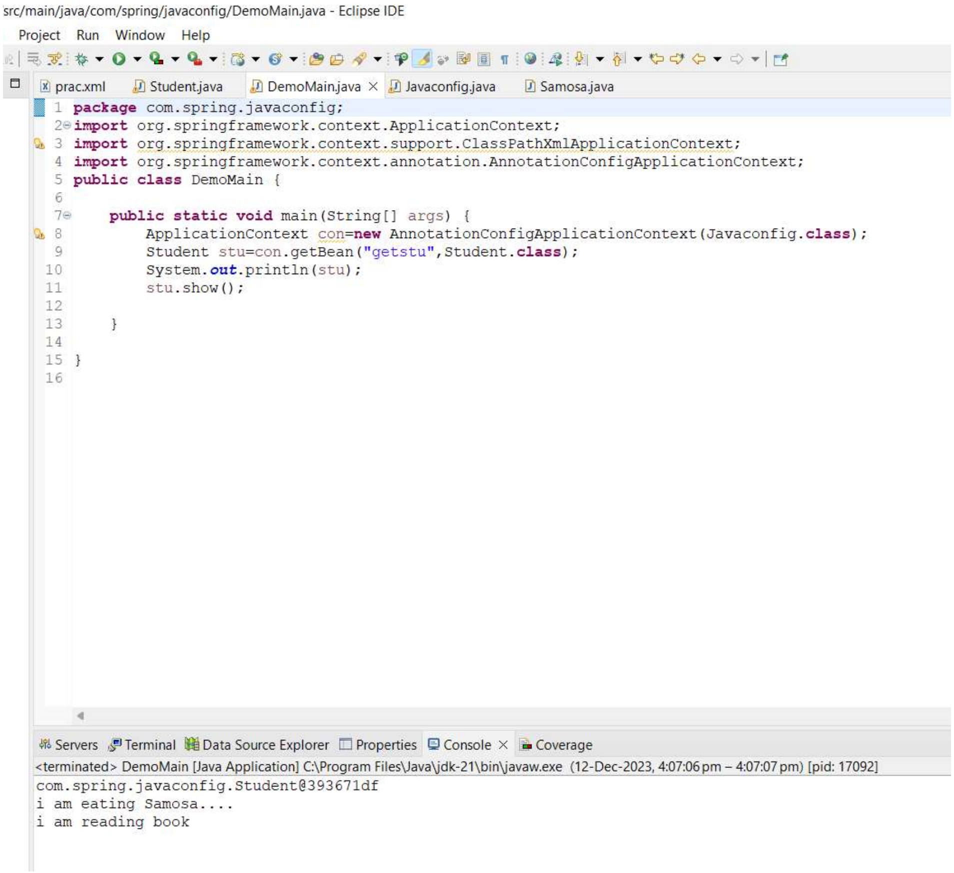


```java
package com.spring.javaconfig;

import org.springframework.stereotype.Component;


public class Student {
    private Samosa samo;


    public Samosa getSamo() {
        return samo;
    }


    public void setSamo(Samosa samo) {
        this.samo = samo;
    }



    public Student(Samosa samo) {
        super();
        this.samo = samo;
    }


    public void show()
    {
        this.samo.display();
        System.out.println("i am reading book");
    }

}
```

```
<terminated> DemoMain [Java Application] C:\Program Files\Java\jdk-21\bin\javaw.exe (12-Dec-2023, 4:07:06 pm – 4:07:07 pm) [pid: 17092]
com.spring.javaconfig.Student@393671df
i am eating Samosa....
i am reading book
```

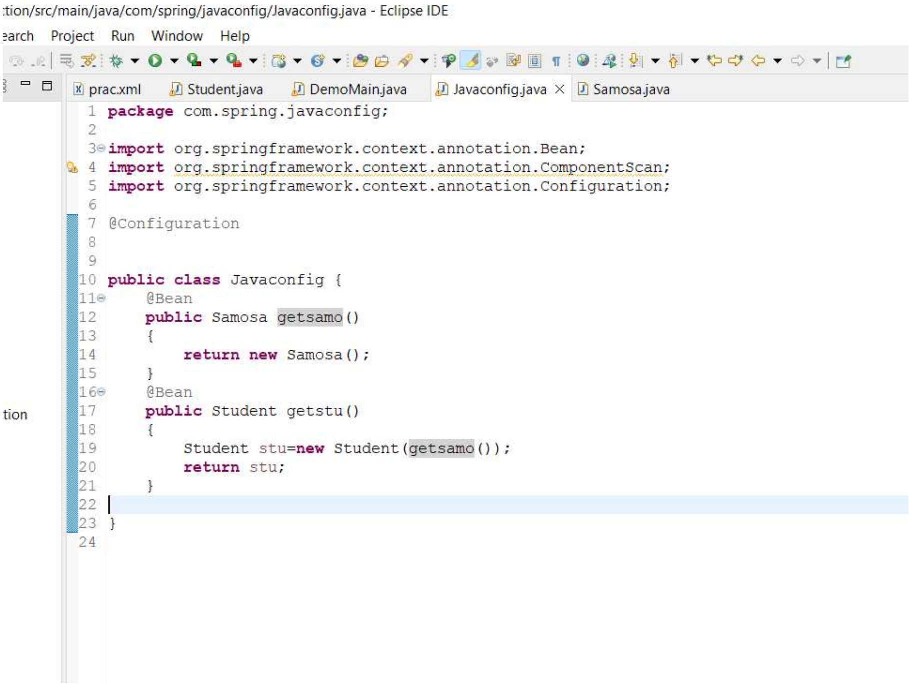

n/src/main/java/com/spring/javaconfig/Samosa.java - Eclipse IDE
:h Project Run Window Help
prac.xml
Student.java
DemoMain.java
Javaconfig.java
Samosa.java

```java
package com.spring.javaconfig;

public class Samosa {
    public void display()
    {
        System.out.println("i am eating Samosa....");
    }

}
```



```java
package com.spring.javaconfig;
import org.springframework.context.ApplicationContext;
import org.springframework.context.support.ClassPathXmlApplicationContext;
import org.springframework.context.annotation.AnnotationConfigApplicationContext;
public class DemoMain {

    public static void main(String[] args) {
        ApplicationContext con=new AnnotationConfigApplicationContext(Javaconfig.class);
        Student stu=con.getBean("getstu",Student.class);
        System.out.println(stu);
        stu.show();

    }

}

```

```
<terminated> DemoMain [Java Application] C:\Program Files\Java\jdk-21\bin\javaw.exe  (12-Dec-2023, 4:07:06 pm – 4:07:07 pm) [pid: 17092]
com.spring.javaconfig.Student@393671df
i am eating Samosa....
i am reading book
```


:tion/src/main/java/com/spring/javaconfig/Javaconfig.java - Eclipse IDE
earch Project Run Window Help
prac.xml
Student.java
DemoMain.java
Javaconfig.java
Samosa.java
tion

```java
package com.spring.javaconfig;

import org.springframework.context.annotation.Bean;
import org.springframework.context.annotation.ComponentScan;
import org.springframework.context.annotation.Configuration;

@Configuration


public class Javaconfig {
    @Bean
    public Samosa getsamo()
    {
        return new Samosa();
    }
    @Bean
    public Student getstu()
    {
        Student stu=new Student(getsamo());
        return stu;
    }

}

```

As we have saw that we are specifying methodname of Bean in getbeans method to inject dependency but we can specify name by ourself also just we have to add parameter in @Bean annotation

```
@Bean(name={“om”,”shubh”,”anu”}
```