1.Aim: Basic Spring Application with Constructor Injection.
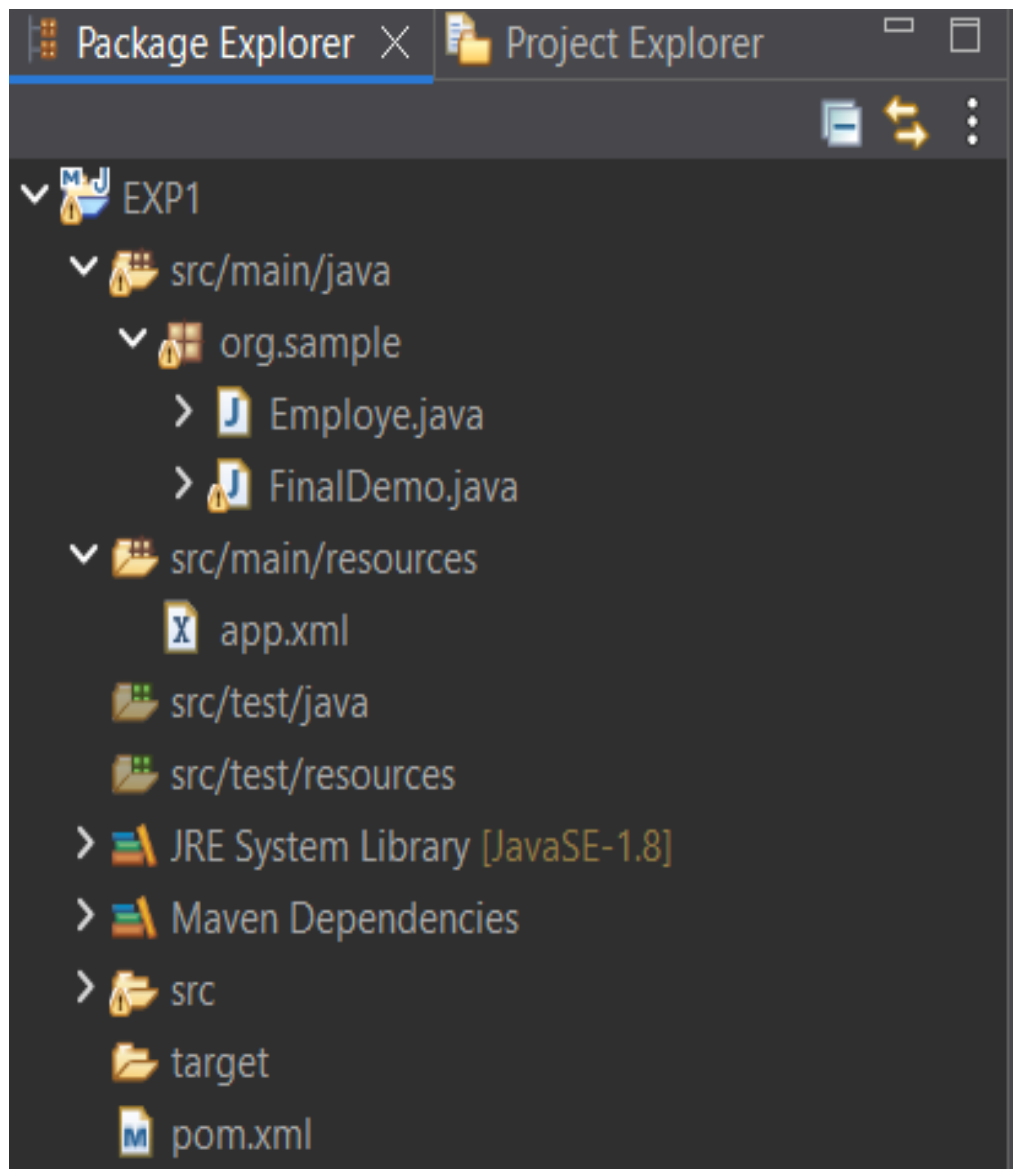
Structure:

Emplotee.java

```java
package org.sample;

public class Emplotee {
    int eno;
    String ename;
    public Emplotee(int eno, String ename) {
        super();
        this.eno = eno;
        this.ename = ename;
    }
    public Emplotee(int eno) {
        super();
        this.eno = eno;
    }
    @Override
    public String toString() {
        return "Emplotee [eno=" + eno + ", ename=" + ename + "]";
    }

}
```

FinalDemo.java

```java
package org.sample;

import org.springframework.context.ApplicationContext;

import org.springframework.context.support.ClassPathXmlApplicationContext;

public class FinalDemo {

    public static void main(String[] args) {
        // TODO Auto-generated method stub


        ApplicationContext context=new ClassPathXmlApplicationContext("app.xml");


        Emplotee e1=context.getBean("w",Emplotee.class);

        System.out.println(e1);


    }
}
```

config.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"
    xsi:schemaLocation="http://www.springframework.org/schema/beans
    https://www.springframework.org/schema/beans/spring-beans.xsd">
    <bean id="w" class="org.sample.Emplotee">
    <constructor-arg index="0" value="101"></constructor-arg>
    <constructor-arg index="1" value="revathi"></constructor-arg>
    </bean>
</beans>
```

Pom.xml

```xml
<project xmlns="http://maven.apache.org/POM/4.0.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://maven.apache.org/POM/4.0.0
https://maven.apache.org/xsd/maven-4.0.0.xsd">

  <modelVersion>4.0.0</modelVersion>

  <groupId>ABCD</groupId>

  <artifactId>FIRSTEXP</artifactId>

  <version>0.0.1-SNAPSHOT</version>

  <dependencies>

  <!-- https://mvnrepository.com/artifact/org.springframework/spring-core -->

<dependency>

    <groupId>org.springframework</groupId>

    <artifactId>spring-core</artifactId>

    <version>7.0.0-M7</version>

</dependency>

<!-- https://mvnrepository.com/artifact/org.springframework/spring-context -->

<dependency>

    <groupId>org.springframework</groupId>

    <artifactId>spring-context</artifactId>

    <version>7.0.0-M7</version>

</dependency>

  </dependencies>

</project>
```
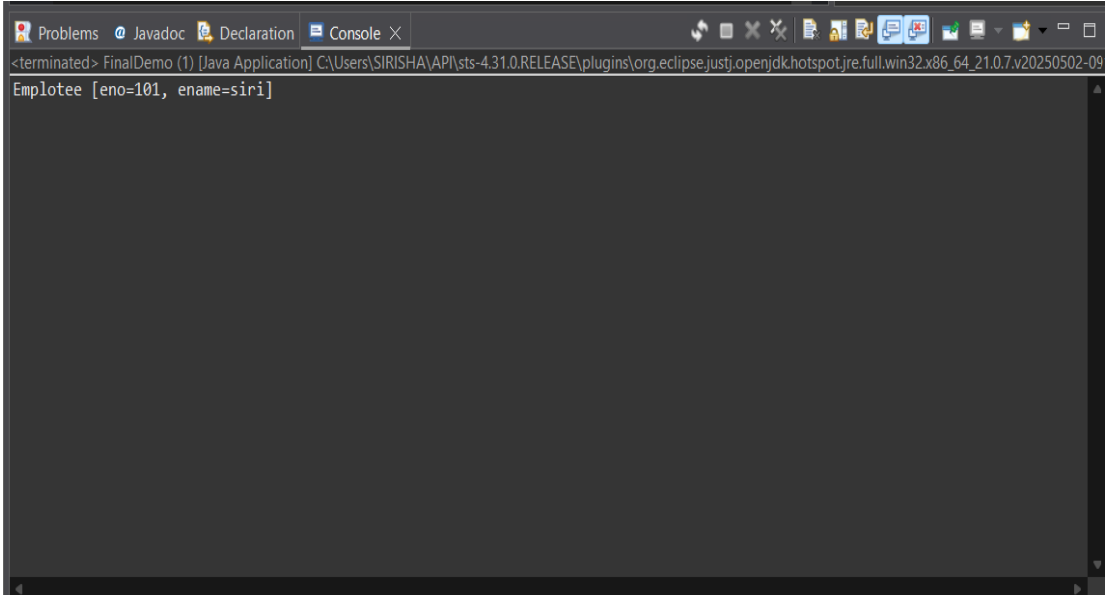
Output:


```
Problems  @ Javadoc  Declaration  Console ×
<terminated> FinalDemo (1) [Java Application] C:\Users\SIRISHA\API\sts-4.31.0.RELEASE\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_21.0.7.v20250502-09
Emplotee [eno=101, ename=siri]
```

2.Aim: Spring Application with Setter Injection.

Employee1.java

```java
package doc.sample;
public class Employee1 {
    int eno;
    String ename;
    public int getEno() {
        return eno;
    }
    public void setEno(int eno) {
        this.eno = eno;
    }
    public String getEname() {
        return ename;
    }
    public void setEname(String ename) {
        this.ename = ename;
    }
    @Override
    public String toString() {
        return "Employee1 [eno=" + eno + ", ename=" + ename + "]";
    }
}
```

Final.java

```java
package doc.sample;

import org.springframework.context.ApplicationContext;

import org.springframework.context.support.ClassPathXmlApplicationContext;


public class Final {


    public static void main(String[] args) {

        // TODO Auto-generated method stub

        ApplicationContext context=new
ClassPathXmlApplicationContext("config.xml");

        Employee1 p2=context.getBean("p", Employee1.class);

        System.out.println(p2);


    }


}
```

config.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"
    xsi:schemaLocation="http://www.springframework.org/schema/beans
    https://www.springframework.org/schema/beans/spring-beans.xsd">
    <bean id="p" class="doc.sample.Employee1">
    <property name="eno" value="250"></property>
    <property name="ename" value="Aditya"></property>
    </bean>
</beans>
```

pom.xml

```xml
<project xmlns="http://maven.apache.org/POM/4.0.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://maven.apache.org/POM/4.0.0
https://maven.apache.org/xsd/maven-4.0.0.xsd">

  <modelVersion>4.0.0</modelVersion>

  <groupId>ASD</groupId>

  <artifactId>SECOND</artifactId>

  <version>0.0.1-SNAPSHOT</version>

  <dependencies>

  <!-- https://mvnrepository.com/artifact/org.springframework/spring-core -->

<dependency>

    <groupId>org.springframework</groupId>

    <artifactId>spring-core</artifactId>

    <version>7.0.0-M7</version>

</dependency>

<!-- https://mvnrepository.com/artifact/org.springframework/spring-context -->

<dependency>

    <groupId>org.springframework</groupId>

    <artifactId>spring-context</artifactId>

    <version>7.0.0-M7</version>

</dependency>

  </dependencies>

</project>
```
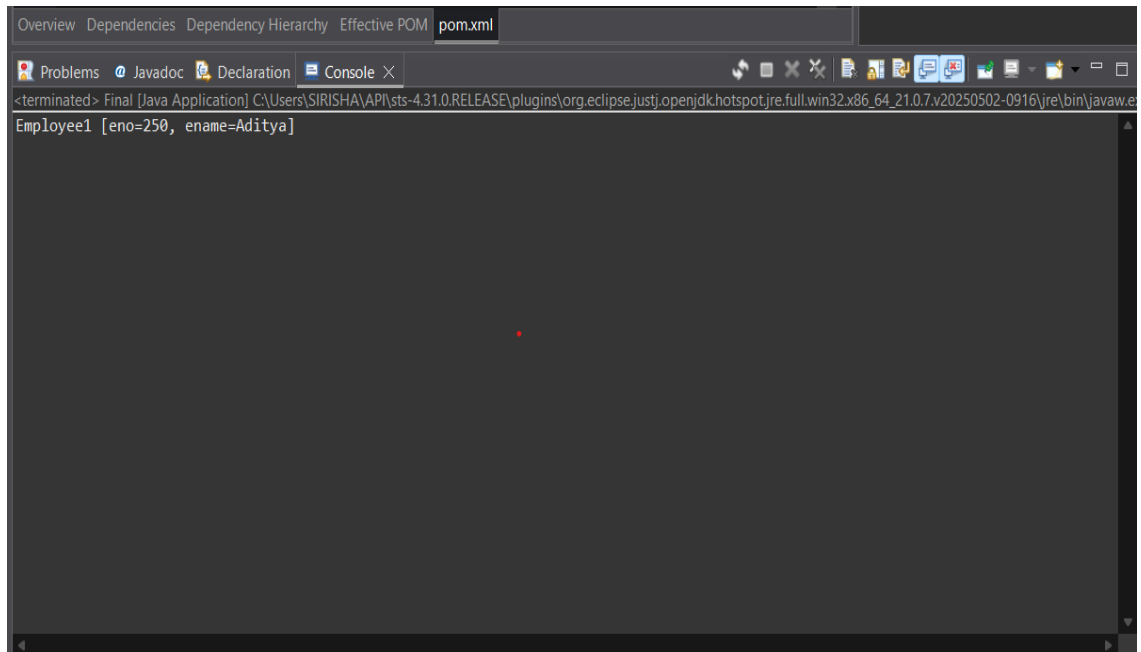
OUTPUT:

Overview   Dependencies   Dependency Hierarchy   Effective POM   **pom.xml**

Problems @ Javadoc   Declaration   Console ×

<terminated> Final [Java Application] C:\Users\SIRISHA\API\sts-4.31.0.RELEASE\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_21.0.7.v20250502-0916\jre\bin\javaw.e

Employee1 [eno=250, ename=Aditya]

3. Aim: Spring Auto Scanning Example

Student1.java

```java
package com.example;

import org.springframework.stereotype.Component;

@Component
public class student1 {

    @Override
    public String toString() {

        return "My name is siri,Iam studying MCA 2nd year..";

    }

}
```

Student2.java

```java
package com.example;

import org.springframework.beans.factory.annotation.Autowired;

import org.springframework.stereotype.Component;

@Component
public class student2 {

    @Autowired
    student1 f;

    @Override
    public String toString()

    {

        return "My name is siri,I am studying MCA 2nd year"+f;

    }

}
```

finalDemo.java

```java
package com.example;

import org.springframework.context.ApplicationContext;

import org.springframework.context.support.ClassPathXmlApplicationContext;


public class finalDemo {


	public static void main(String[] args) {

		// TODO Auto-generated method stub

	ApplicationContext context=new
ClassPathXmlApplicationContext("config.xml");

	student2 s=(student2)context.getBean("student2");

	System.out.println(s);


	}


}
```

Config1.xml

```xml
<beans xmlns="http://www.springframework.org/schema/beans"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xmlns:context="http://www.springframework.org/schema/context"
    xsi:schemaLocation="http://www.springframework.org/schema/beans
    http://www.springframework.org/schema/beans/spring-beans-2.5.xsd
    http://www.springframework.org/schema/context
    http://www.springframework.org/schema/context/spring-context-2.5.xsd">
    <context:component-scan base-package="com.example"></context:component-scan>
    </beans>
```

Pom.xml

```xml
<project xmlns="http://maven.apache.org/POM/4.0.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://maven.apache.org/POM/4.0.0
https://maven.apache.org/xsd/maven-4.0.0.xsd">
  <modelVersion>4.0.0</modelVersion>
  <groupId>Exp3</groupId>
  <artifactId>student</artifactId>
  <version>0.0.1-SNAPSHOT</version>
  <dependencies>
  <!-- https://mvnrepository.com/artifact/org.springframework/spring-core -->
<dependency>
    <groupId>org.springframework</groupId>
    <artifactId>spring-core</artifactId>
    <version>7.0.0-M7</version>
</dependency>
<!-- https://mvnrepository.com/artifact/org.springframework/spring-context -->
<dependency>
    <groupId>org.springframework</groupId>
    <artifactId>spring-context</artifactId>
    <version>7.0.0-M7</version>
</dependency>
  </dependencies>
</project>
```
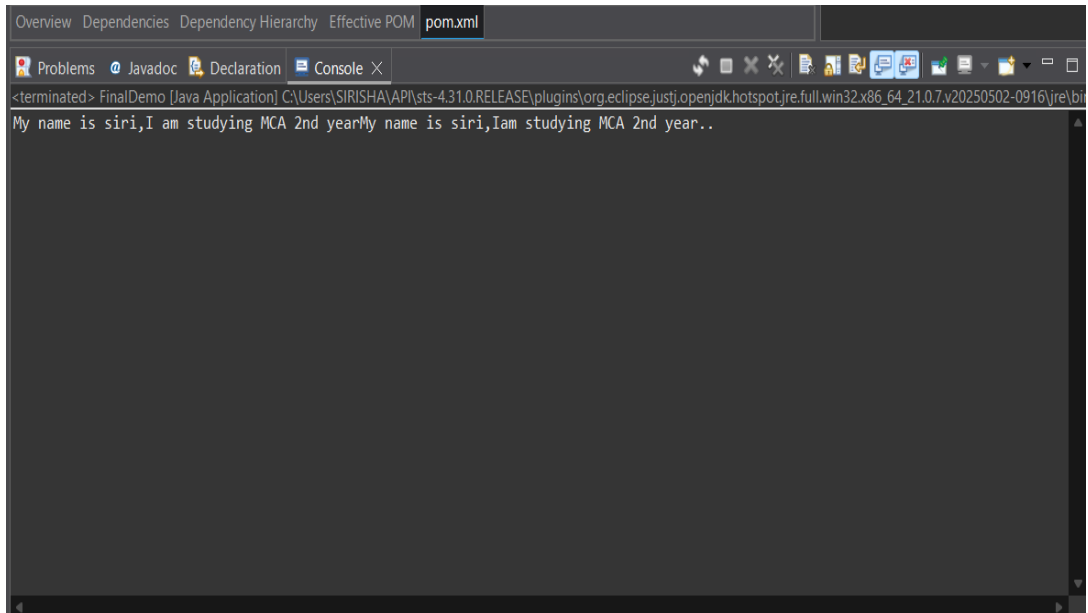
OUTPUT:

Problems @ Javadoc Declaration Console ×

\<terminated\> FinalDemo [Java Application] C:\Users\SIRISHA\API\sts-4.31.0.RELEASE\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_21.0.7.v20250502-0916\jre\bir

My name is siri,I am studying MCA 2nd yearMy name is siri,Iam studying MCA 2nd year..