

## 1.Basic Spring Application With Constructor Injection

### MainDemo.java

```
package com.example;

import org.springframework.context.ApplicationContext;
import org.springframework.context.support.ClassPathXmlApplicationContext;

public class MainDemo {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        ApplicationContext context = new ClassPathXmlApplicationContext("config.xml");
        student s = context.getBean("S",student.class);
        System.out.println(s);
        s.Read();
    }

}
```

## **Student.java**

```
package com.example;

public class student {
    int Eno;
    String Ename;

    public student(int eno, String ename) {
        super();
        Eno = eno;
        Ename = ename;
    }

    public student(int eno) {
        super();
        Eno = eno;
    }

    @Override
    public String toString() {
        return "student [Eno=" + Eno + ", Ename=" + Ename + "]";
    }

    public void Read() {
        System.out.println("This is Employee class method");
    }
}
```

## Config.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="S" class="com.example.student">
    <constructor-arg type="int" value="123"></constructor-arg>
    <constructor-arg type="String" value="Ramya"></constructor-arg>
  </bean>
</beans>
```

## Pom.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>nnn</groupId>

  <artifactId>SecondLab</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>6.2.8</version>

    </dependency>

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

      <groupId>org.springframework</groupId>

      <artifactId>spring-context</artifactId>

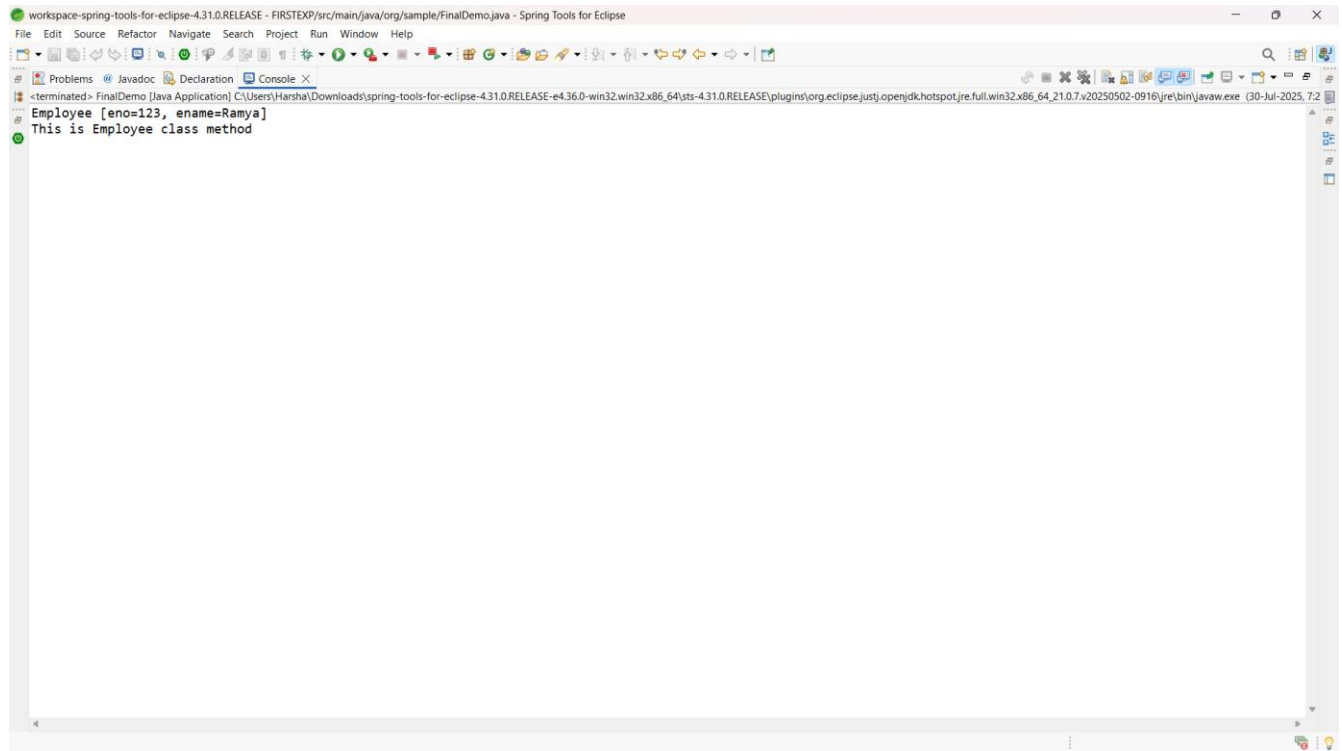
      <version>6.2.8</version>

    </dependency>

  </dependencies>

</project>
```

# Output :



## 2.Spring Application With Setter Injection

### MainDemo.java

```
package com.programs;

import org.springframework.context.support.ClassPathXmlApplicationContext;
import org.springframework.context.ApplicationContext;

public class FinalDemo {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        ApplicationContext context = new ClassPathXmlApplicationContext("App.xml");
        Employee e1= context.getBean("e",Employee.class);
        System.out.println(e1);
    }
}
```

## Employee.java

```
package com.programs;

public class Employee {
    int Eno;
    String Ename;
    public int getEno() {
        return Eno;
    }
    public void setEno(int eno) {
        Eno = eno;
    }
    public String getEname() {
        return Ename;
    }
    public void setEname(String ename) {
        Ename = ename;
    }
    @Override
    public String toString() {
        return "Employee [Eno=" + Eno + ", Ename=" + Ename + "]";
    }
}
```

## App.xml(config.xml file)

```
<?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="e" class="com.programs.Employee">
    <property name="eno" value="356"></property>
    <property name="ename" value="Ramya"></property>
  </bean>
</beans>
```



## Pom.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>hii</groupId>

    <artifactId>FirstLab</artifactId>

    <version>0.0.1-SNAPSHOT</version>

    <dependencies>

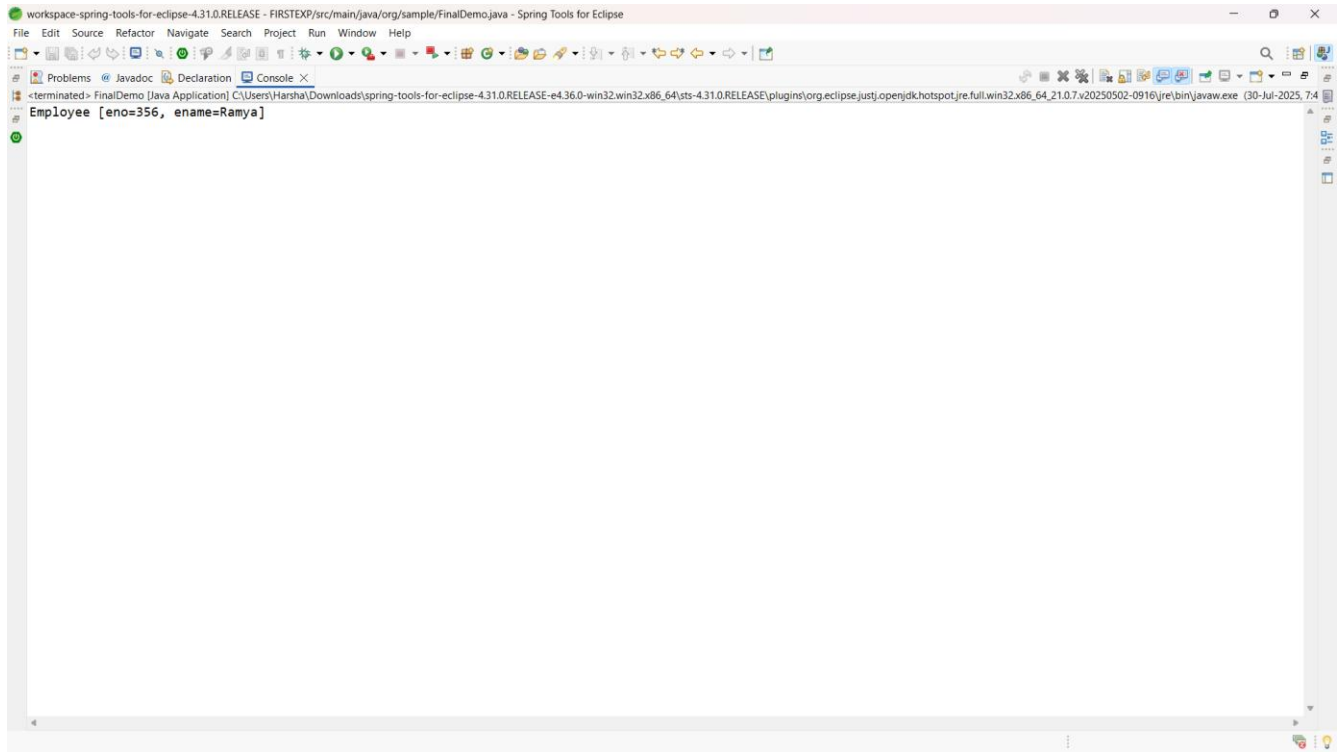
        <!-- https://mvnrepository.com/artifact/org.springframework/spring-core -->
    <dependency>
        <groupId>org.springframework</groupId>
        <artifactId>spring-core</artifactId>
        <version>6.2.9</version>
    </dependency>

        <!-- https://mvnrepository.com/artifact/org.springframework/spring-context -->
    <dependency>
        <groupId>org.springframework</groupId>
        <artifactId>spring-context</artifactId>
        <version>6.2.9</version>
    </dependency>

    </dependencies>

</project>
```

## OUTPUT :



The screenshot shows the Spring Tools for Eclipse IDE interface. The title bar indicates the workspace is 'workspace-spring-tools-for-eclipse-4.31.0.RELEASE' and the current file is 'FIRSTEXP/src/main/java/org/sample/FinalDemo.java'. The menu bar includes File, Edit, Source, Refactor, Navigate, Search, Project, Run, Window, and Help. The toolbar contains various icons for file operations, development, and running. The 'Console' tab is active, displaying the output of the application. The output shows a successful run of 'FinalDemo [Java Application]' with the message 'Employee [eno=356, ename=Ramy]' printed to the console. The status bar at the bottom indicates the application was terminated on 30-Jul-2025 at 7:4.

```
workspace-spring-tools-for-eclipse-4.31.0.RELEASE - FIRSTEXP/src/main/java/org/sample/FinalDemo.java - Spring Tools for Eclipse
File Edit Source Refactor Navigate Search Project Run Window Help
Problems Javadoc Declaration Console
<terminated> FinalDemo [Java Application] C:\Users\Harsha\Downloads\spring-tools-for-eclipse-4.31.0.RELEASE-e4.36.0-win32.win32.x86_64\sts-4.31.0.RELEASE\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64_21.0.7.v20250502-0916\jre\bin\javaw.exe (30-Jul-2025, 7:4)
Employee [eno=356, ename=Ramy]
```