

PRACTICAL 7(A) – SPRING FRAMEWORK HELLO WORLD

GENERAL SETUP FOR SPRING FRAMEWORK PRACTICALS (PRACTICAL 7)

This setup is common for all Spring Framework practicals (7A–7D). It explains how to configure external libraries and Spring environment in NetBeans IDE 7.x.

STEP 1: Software Requirements

- Operating System: Windows / Linux
- JDK: Version 7 or 8
- NetBeans IDE 7.x
- Spring Framework JAR files (Spring Core)

STEP 2: Download Spring Framework

1. Download Spring Framework (ZIP) from official Spring website
2. Extract the ZIP file
3. Locate required JARs inside the 'libs' folder

Required Spring JAR Files

- spring-core.jar
- spring-beans.jar
- spring-context.jar
- spring-expression.jar
- commons-logging.jar

STEP 3: Create Java Application Project

1. Open NetBeans IDE 7
2. File → New Project → Java → Java Application
3. Project Name: SpringDemo
4. Uncheck 'Create Main Class'
5. Click Finish

STEP 4: Add Spring Libraries to Project

1. Right-click project → Properties
2. Select Libraries
3. Click Add JAR/Folder
4. Add all Spring JAR files listed above

5. Click OK

PRACTICAL 7(A): HELLO WORLD USING SPRING FRAMEWORK

AIM

To write a program to print "Hello World" using Spring Framework.

THEORY

Spring Framework is a lightweight, open-source framework used for enterprise Java development. It follows the principle of Inversion of Control (IoC), where object creation and dependency management are handled by the Spring container.

SOURCE CODE – HelloWorld.java

```
package springdemo;

public class HelloWorld {
    public void showMessage() {
        System.out.println("Hello World from Spring Framework");
    }
}
```

SOURCE CODE – applicationContext.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
http://www.springframework.org/schema/beans/spring-beans.xsd">

    <bean id="hello" class="springdemo.HelloWorld"/>
</beans>
```

SOURCE CODE – MainApp.java

```
package springdemo;

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

public class MainApp {
    public static void main(String[] args) {
        ApplicationContext context =
            new ClassPathXmlApplicationContext("applicationContext.xml");

        HelloWorld obj = (HelloWorld) context.getBean("hello");
        obj.showMessage();
    }
}
```

NETBEANS 7 – DETAILED EXECUTION STEPS FOR 7(A)

1. Create package named springdemo
2. Create Java class HelloWorld
3. Create Java class MainApp
4. Create XML file applicationContext.xml inside Source Packages
5. Paste respective code
6. Run MainApp.java using Shift + F6

OUTPUT

Hello World from Spring Framework

RESULT

Thus, Hello World program using Spring Framework was successfully executed.