
# Spring Boot Web App

# Agenda

1. Spring Boot Web App.
2. Spring Boot Web App Using Properties File
3. Spring Boot Web App Accepting Client Data
4. Spring Boot MVC
5. Spring Boot MVC Using Model Object

# Objectives

At the end of this module, you will be able to:

- Understand, How to create a web app in spring boot.
- Understand, How to create a web app using properties file.
- Understand, How the spring boot accepts client data.
- Understand, How to create MVC in spring boot.
- Understand, How to create MVC with model object.

# Spring Boot Web App

# Spring Boot Web App.

- If we want to develop a web application, we need to add the following dependency in pom.xml file:

```
<dependency>
<groupId>org.springframework.boot</groupId>
<artifactId>spring-boot-starter-web</artifactId>
</dependency>
```

- There are two important features of spring-boot-starter-web:
  - It is compatible for web development
  - Auto configuration
- Starter of Spring web uses Spring MVC, REST and Tomcat as a default embedded server.

# Spring Boot Web App.

- While creating a spring boot web project, you can add web dependency as like below.

# Spring Boot Web App.

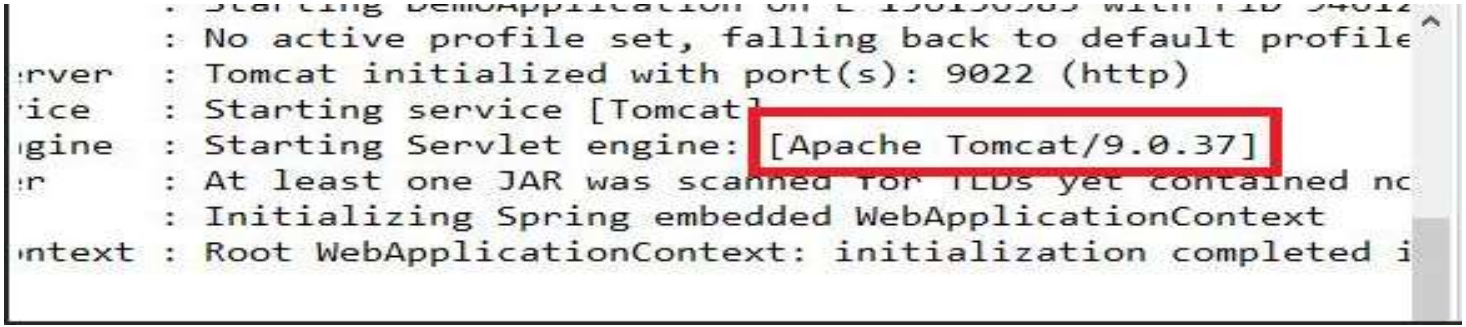
- Since we are going to use JSP in our example, we need to add the below dependency in our pom.xml as per our embedded tomcat version.
- Because mainly Spring Boot is concentrating on REST and Micro Services.

```
<dependency>
        <groupId>org.apache.tomcat</groupId>
        <artifactId>tomcat-jasper</artifactId>
        <version>9.0.33</version>
</dependency>
```

- Here, we are going to use two annotations @Controller and @RequestMapping.

# How to find out embedded tomcat version

While running the previous example, We can find the embedded tomcat version from the console like below.




We can get the dependency from the below link
https://mvnrepository.com/artifact/org.apache.tomcat/tomcat-jasper

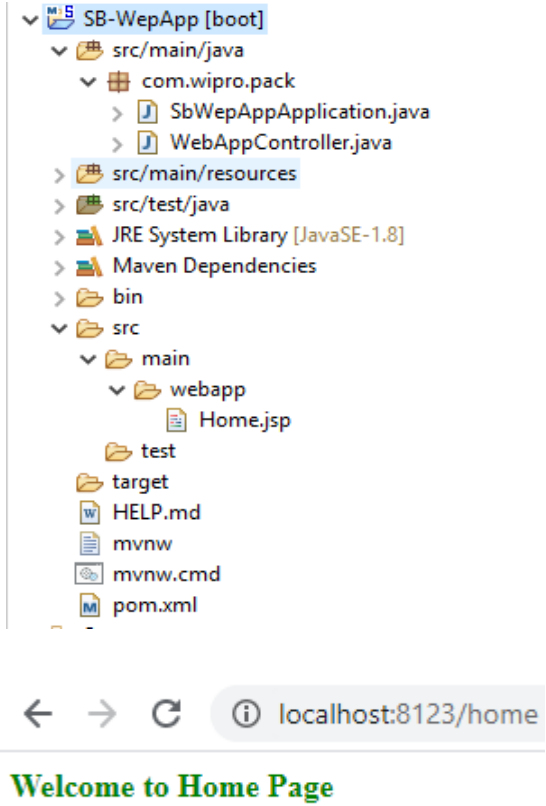
# Spring Boot Web App - Example

# Spring Boot Web App.

```java
package com.wipro.pack;
import org.springframework.stereotype.Controller;
import org.springframework.web.bind.annotation.RequestMapping;
@Controller
public class WebAppController {

		@RequestMapping("/home")
		public String home() {
				return "Home.jsp";
		}
}
```

```jsp
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Insert title here</title>
</head>
<body>
<font color=green><b>Welcome to Home Page</b></font>
</body>
</html>
```





# SB Web App Using Properties File

# Spring Boot Web App Using Properties File.

- In our previous example, We have created Home.jsp file inside “webapp” folder. Because by default the spring boot will check this folder to find the view pages.

- Also in our “WebAppController”, we have hard coded the extensions of view page as “.jsp”.

- In case, If I want to store all my view pages in a separate folder and I want change the view page extension based on customer requirement with out touching my Controller then the properties file will come to the picture.

# SB Web App Using Properties File - Example

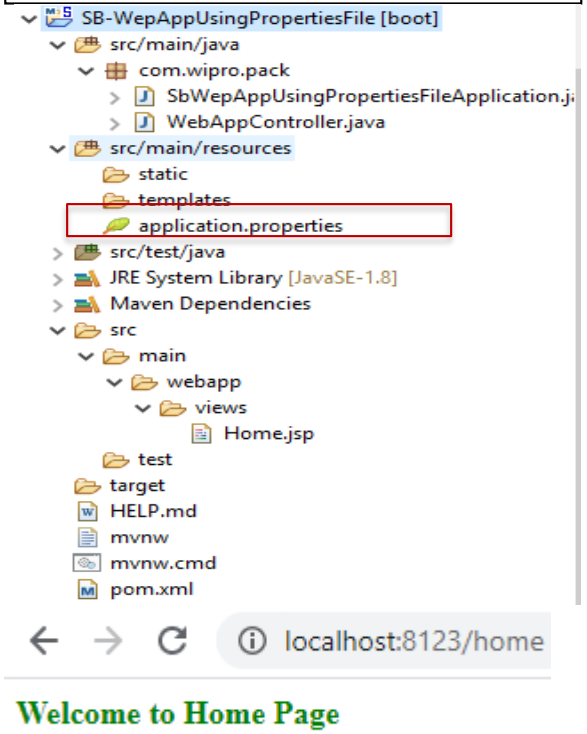
# Spring Boot Web App Using Properties File.

```java
package com.wipro.pack;
import org.springframework.stereotype.Controller;
import org.springframework.web.bind.annotation.RequestMapping;
@Controller
public class WebAppController {

		@RequestMapping("/home")
		public String home() {
				return "Home";
		}
}
```

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Insert title here</title>
</head>
<body>
<font color=green><b>Welcome to Home Page</b></font>
</body>
</html>
```

```
server.port=8123
spring.mvc.view.prefix=/views/
spring.mvc.view.suffix=.jsp
```



# SB Web App Accepting Client Data

# SB Web App Accepting Client Data.

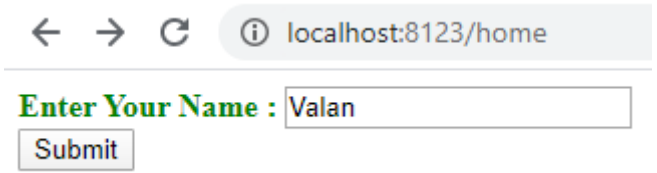
```
package com.wipro.pack;
import javax.servlet.http.HttpServletRequest;
import org.springframework.stereotype.Controller;
import org.springframework.web.bind.annotation.RequestMapping;
@Controller
public class WebAppController {
            @RequestMapping("/home")
            public String home() {
                        return "Home";
            }
            @RequestMapping("/welcome")
            public String welcome(HttpServletRequest req) {
                        String name = req.getParameter("name");
                        req.setAttribute("name", name);
            return "Welcome";
            }
}
```

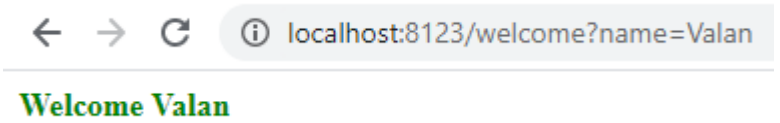
**Home.jsp**

```
<form action="welcome"><font color=green><b>
Enter Your Name : <input type="text"
name="name"/><br>
<input type="submit" value="Submit"/>
</form></b></font>
```

**Welcome.jsp**

```
<body>
<font color=green><b>Welcome
${name}</b></font>
</body>
```



# Spring Boot MVC

# Spring Boot MVC.

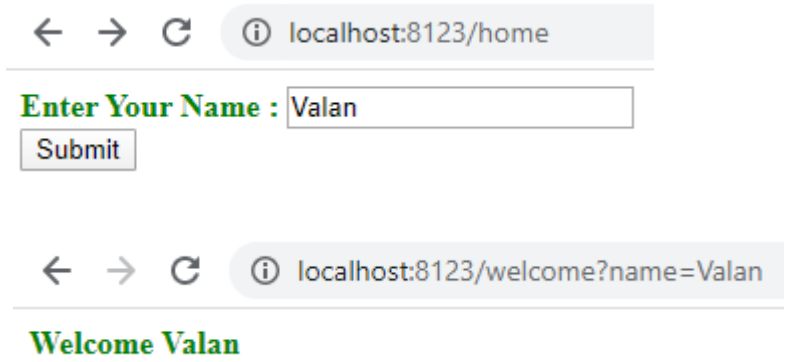
```java
package com.wipro.pack;
import org.springframework.stereotype.Controller;
import org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.bind.annotation.RequestParam;
import org.springframework.web.servlet.ModelAndView;
@Controller
public class WebAppController {
		@RequestMapping("/home")
		public String home() {
				return "Home";
		}
		@RequestMapping("/welcome")
		public ModelAndView welcome(@RequestParam("name")
String name) {
				ModelAndView mv = new ModelAndView();
				mv.addObject("name", name);
				mv.setViewName("Welcome");
				return mv;
		}
}
```

**Home.jsp**

```jsp
<form action="welcome"><font color=green><b>
Enter Your Name : <input type="text"
name="name"/><br>
<input type="submit" value="Submit"/>
</form></b></font>
```

**Welcome.jsp**

```jsp
<body>
<font color=green><b>Welcome
${name}</b></font>
</body>
```



# SB MVC Using Employee Model Object

# SB MVC Using Employee Model Object.

```
package com.wipro.pack;
import org.springframework.stereotype.Controller;
import
org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.servlet.ModelAndView;
@Controller
public class WebAppController {
            @RequestMapping("/home")
            public String home() {
                        return "Home";
            }
            @RequestMapping("/welcome")
            public ModelAndView welcome(Employee emp) {
            ModelAndView mv = new ModelAndView();
                        mv.addObject("emp", emp);
                        mv.setViewName("Welcome");
                        return mv;
            }
}
```

**Home.jsp**

```
<form action="welcome"><font color=green><b>
Enter Your Id : <input type="text" name="id"/><br>
Enter Your Name : <input type="text"
name="name"/><br>
Enter Your Salary : <input type="text"
name="salary"/><br>
<input type="submit" value="Submit"/>
</form></b></font>
```

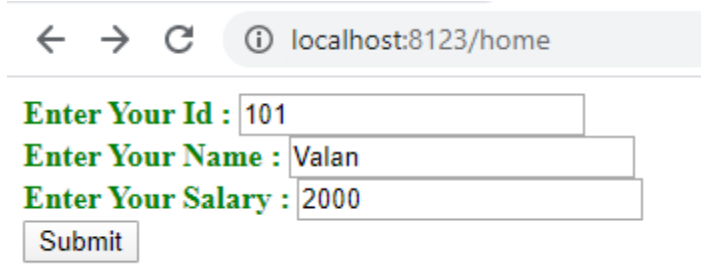
**Welcome.jsp**

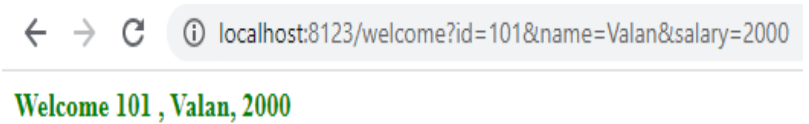
```
<body>
<font color=green><b>Welcome ${emp.id} ,
${emp.name}, ${emp.salary}</b></font>
</body>
```

# SB MVC Using Employee Model Object.

```
package com.wipro.pack;
public class Employee {
		private int id;
		private String name;
		private int salary;

		public int getId() {
			return id;
		}
		public void setId(int id) {
			this.id = id;
		}
		public String getName() {
			return name;
		}
		public void setName(String name) {
			this.name = name;
		}
		public int getSalary() {
			return salary;
		}
		public void setSalary(int salary) {
			this.salary = salary;
		}
}
```



# Summary

In this session, you have learned about:

- What is web app in spring boot.
- How to create a web app using properties file.
- How the spring boot accepts client data.
- How to create MVC in spring boot.
- How to create MVC with Employee model object.


# Thank you