**🔷 Developing Spring Web MVC Application (Spring Boot)**

**✅ 1. spring-boot-starter-web dependency**

* This dependency is added in pom.xml.
* It provides all the required libraries to build a **Spring Web MVC** application.
* It includes:
  + Embedded Tomcat Server
  + Spring MVC modules
  + JSON support
  + DispatcherServlet, etc.

**✅ 2. @Controller Annotation**

* This annotation is used on a class.
* It tells Spring that the class is a **Controller** (also called Request Handler).
* It will handle **web requests** (like URL calls from the browser).

**✅ 3. @RequestMapping Annotation**

* This is used to **map a URL pattern to a controller method**.
* When a client sends a request to a specific URL, the corresponding method is executed.
* Example:

@RequestMapping("/welcome")

public String showWelcomePage() { }

**✅ 4. Returning ModelAndView Object**

* Controller method returns a ModelAndView object.
* This object contains:
  + a) **Model data** → in the form of key-value pairs
  + b) **Logical view name** → without extension

**✅ 5. Accessing Model Data in View File**

* The data sent using Model (in the form of key-value)  
  can be **accessed in the view file** using the key.
* Example in JSP:

<h1>Hello ${username}</h1>

(Here username is the key used in Model)

**✅ 6. @GetMapping Annotation**

* Shortcut for @RequestMapping(method = RequestMethod.GET)
* Used to bind a controller method to a **HTTP GET request**.
* Commonly used to **display data or forms**.

**✅ 7. Model Interface**

* Provided by Spring.
* It is used to **store data as key-value pairs**.
* This data is passed from **Controller to View (UI)**.
* View file uses this data to display on the screen.

Client Request → @Controller method → prepares data in Model → returns ModelAndView → View displays data

Eg: SpringWebMVC