# Configuring Your Environment for Spring MVC Application Development

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# Overview

What is Spring MVC?

Spring Architecture

Advantages of Spring MVC
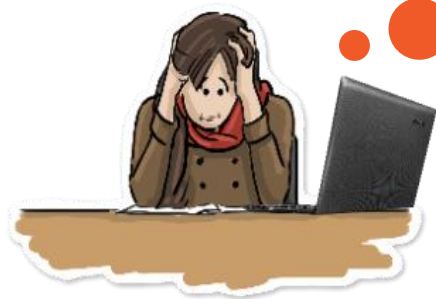
Spring MVC Configuration

# What is Spring MVC?

It is a framework for building Web Applications in Java

Learning is very easy
Flexible when compared with other web development models
Can leverage the features of Core Spring
- Inversion of Control
- Dependency Injection

We have Servlets and JSP

# Advantages of Spring MVC

**Based on Model-View-Controller Architecture**

**Leverage a set of reusable UI components**

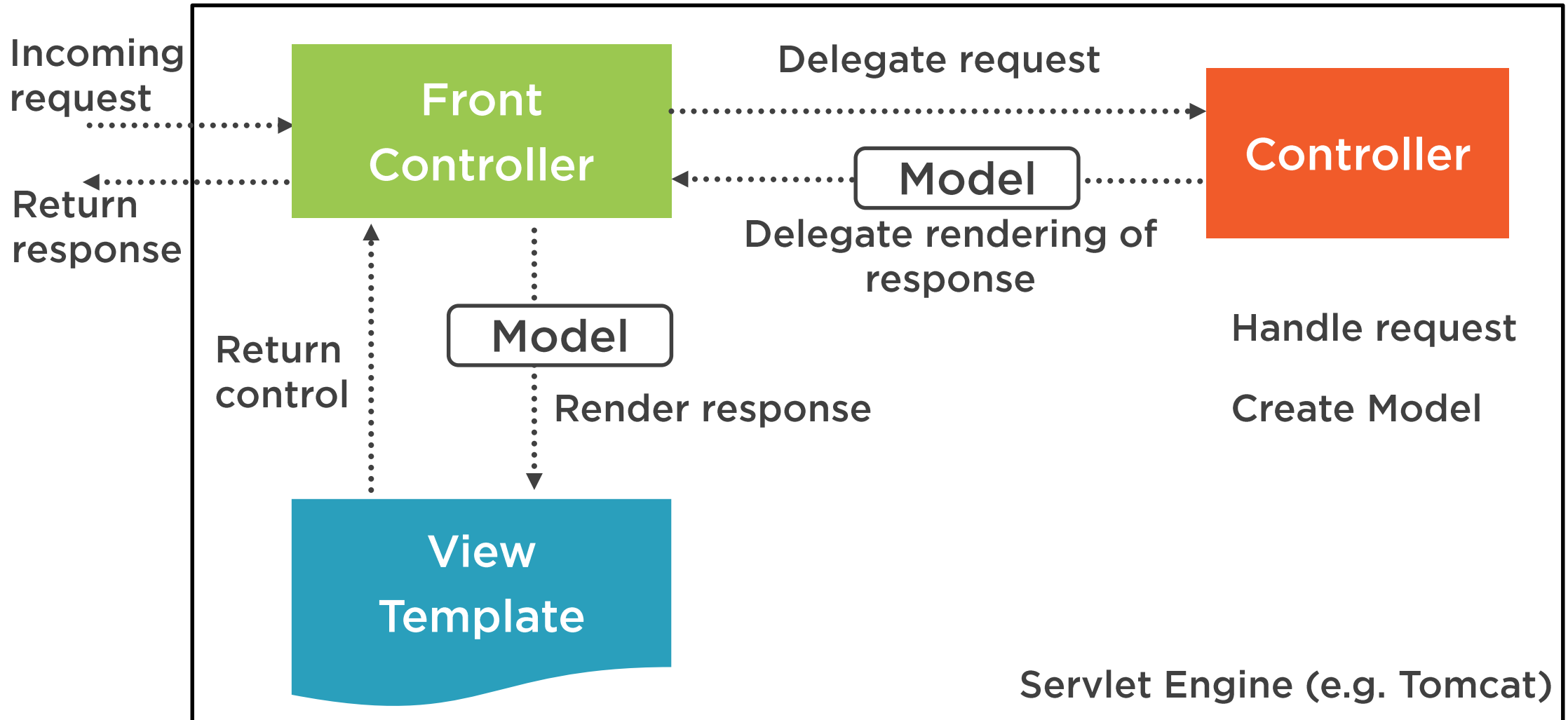**Help manage application state for web requests**

**Process form data, validation, conversion**

**Flexible configuration for the View layer**

- Supports JSP
- Thymeleaf
- Velocity
- Freemaker

# Spring MVC Process Flow



**Incoming request** → **Front Controller**

**Delegate request** → **Controller**

**Return response** ←

**Model** ← **Delegate rendering of response**

**Return control** ↑

**Model**

**Render response** ↓

**View Template**

**Handle request**

**Create Model**

**Servlet Engine (e.g. Tomcat)**

# Spring MVC Configuration Overview

# Spring MVC Configuration Process

**Configure Spring MVC DispatcherServlet**

**Add entries to Spring Configuration File**

# Step 1: Configuring Spring MVC DispatcherServlet in web.xml

```xml
<servlet>

    <servlet-name>SpringController</servlet-name>

    <servlet-class>

        org.springframework.web.servlet.DispatcherServlet

    </servlet-class>

    <init-param>

        <param-name>contextConfigLocation</param-name>

        <param-value>/WEB-INF/bankAppContext.xml</param-value>

    </init-param>

    <load-on-startup>1</load-on-startup>

</servlet>
```

# Step 1: Configuring Spring MVC DispatcherServlet in web.xml

```
<web-app  … >

    <servlet>

        …

    </servlet>

    <servlet-mapping>

            <servlet-name>SpringController</servlet-name>

            <url-pattern>/</url-pattern>

    </servlet-mapping>

</web-app>
```

# Step 2: Adding Entries to Spring Config. File

```
<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"

    xmlns:mvc="http://www.springframework.org/schema/mvc"

    xsi:schemaLocation="http://www.springframework.org/schema/beans

    http://www.springframework.org/schema/beans/spring-beans-3.2.xsd

    http://www.springframework.org/schema/mvc

    http://www.springframework.org/schema/mvc/spring-mvc-3.2.xsd

    http://www.springframework.org/schema/context

    http://www.springframework.org/schema/context/spring-context-3.2.xsd">

</bean>
```

# Step 2: Adding Entries to Spring Config. File

```xml
<beans …>

    <context:component-scan base-package="com.ps.bankapp" />

    <mvc:annotation-driven />

    <bean

            id="viewResolver"


class="org.springframework.web.servlet.view.InternalResourceViewResolver">

            <property name="prefix" value="/views/" />

            <property name="suffix" value=".jsp" />

    </bean>

</beans>
```

# Demo: Spring MVC Configuration

# Summary

What is Spring MVC?

Spring Architecture

Spring MVC Configuration