



Spring MVC Configuration Quick Guide


빠른 시작

1. 프로젝트 생성

Spring legacy Project → Spring MVC Project

Project Facets Version Up → Dynamic Web Module (3.1 또는 4.0), java (1.8)

Tomcat Web Module - Context Path Check

 **Web Modules**

Web Modules

Configure the Web Modules on this server.

Path	Document Base	Module	Auto Reload
/myapp	SpringMVC	SpringMVC	Enabled
/mydb	SpringDB	SpringDB	Enabled
/mybatis	SpringMVCMYbatis	SpringMVCMYbatis	Enabled
/mystudent	SpringMVCMYbatisStudent	SpringMVCMYbatisStudent	Enabled
/	BoardFileUploadSpringMVCMYbatis	BoardFileUploadSpringMVCMYbatis	Enabled

Add Web Module...

Add External Web Module...

Edit...

Remove

Java Version & Build Path (Zulu..)

2. pom.xml 수정

Version UP

```
<properties>
  <java-version>1.8</java-version>
  <org.springframework-version>5.1.9.RELEASE</org.springframework-version>
  <org.aspectj-version>1.6.10</org.aspectj-version>
  <org.slf4j-version>1.6.6</org.slf4j-version>
</properties>
```

```
<!-- Servlet -->
<!-- https://mvnrepository.com/artifact/javax.servlet/javax.servlet-api -->
<dependency>
  <groupId>javax.servlet</groupId>
  <artifactId>javax.servlet-api</artifactId>
  <version>3.1.0</version>
  <scope>provided</scope>
</dependency>
```

```
<plugin>
  <groupId>org.apache.maven.plugins</groupId>
  <artifactId>maven-compiler-plugin</artifactId>
  <version>3.8.1</version>
  <configuration>
    <source>1.8</source>
    <target>1.8</target>
    <compilerArgument>-Xlint:all</compilerArgument>
    <showWarnings>true</showWarnings>
    <showDeprecation>true</showDeprecation>
  </configuration>
</plugin>
```



3. pom.xml 추가 #1

AOP - aspectjweaver (optional)

```
<!-- AspectJ - aspectjweaver -->  
<!-- https://mvnrepository.com/artifact/org.aspectj/aspectjweaver -->  
<dependency>  
    <groupId>org.aspectj</groupId>  
    <artifactId>aspectjweaver</artifactId>  
    <version>1.9.5</version>  
</dependency>
```

3. pom.xml 추가 #2

JSON - jackson 3 가지 (or Gson)

```
<!-- JSON - jackson-core, jackson-databind, jackson-annotations -->
<!-- https://mvnrepository.com/artifact/com.fasterxml.jackson.core/jackson-core -->
<dependency>
  <groupId>com.fasterxml.jackson.core</groupId>
  <artifactId>jackson-core</artifactId>
  <version>2.11.0</version>
</dependency>
<!-- https://mvnrepository.com/artifact/com.fasterxml.jackson.core/jackson-databind -->
<dependency>
  <groupId>com.fasterxml.jackson.core</groupId>
  <artifactId>jackson-databind</artifactId>
  <version>2.11.0</version>
</dependency>
<!-- https://mvnrepository.com/artifact/com.fasterxml.jackson.core/jackson-annotations -->
<dependency>
  <groupId>com.fasterxml.jackson.core</groupId>
  <artifactId>jackson-annotations</artifactId>
  <version>2.11.0</version>
</dependency>
```

3. pom.xml 추가 #2

JSON -- Gson 을 사용할 경우

```
<!-- https://mvnrepository.com/artifact/com.fasterxml.jackson.core/jackson-core -->
<!-- <dependency> -->
<!--     <groupId>com.fasterxml.jackson.core</groupId> -->
<!--     <artifactId>jackson-core</artifactId> -->
<!--     <version>2.11.3</version> -->
<!-- </dependency> -->
<!-- https://mvnrepository.com/artifact/com.fasterxml.jackson.core/jackson-databind -->
<!-- <dependency> -->
<!--     <groupId>com.fasterxml.jackson.core</groupId> -->
<!--     <artifactId>jackson-databind</artifactId> -->
<!--     <version>2.11.3</version> -->
<!-- </dependency> -->
<!-- https://mvnrepository.com/artifact/com.fasterxml.jackson.core/jackson-annotations -->
<!-- <dependency> -->
<!--     <groupId>com.fasterxml.jackson.core</groupId> -->
<!--     <artifactId>jackson-annotations</artifactId> -->
<!--     <version>2.11.3</version> -->
<!-- </dependency> -->

<dependency>
    <groupId>com.google.code.gson</groupId>
    <artifactId>gson</artifactId>
    <version>2.8.6</version>
</dependency>
```

3. pom.xml 추가 #3

spring-jdbc & connection pool - DataSource

```
<!-- Database - spring-jdbc, connection pool -->
<!-- https://mvnrepository.com/artifact/org.springframework/spring-jdbc -->
<dependency>
  <groupId>org.springframework</groupId>
  <artifactId>spring-jdbc</artifactId>
  <version>5.2.6.RELEASE</version>
</dependency>
<!-- https://mvnrepository.com/artifact/org.apache.commons/commons-dbcp2 -->
<dependency>
  <groupId>org.apache.commons</groupId>
  <artifactId>commons-dbcp2</artifactId>
  <version>2.7.0</version>
</dependency>
```

3. pom.xml 추가 #4

Mybatis (Mybatis 사용할 경우)

```
<!-- Database - mybatis, mybatis-spring -->
<!-- https://mvnrepository.com/artifact/org.mybatis/mybatis -->
<dependency>
  <groupId>org.mybatis</groupId>
  <artifactId>mybatis</artifactId>
  <version>3.5.4</version>
</dependency>
<!-- https://mvnrepository.com/artifact/org.mybatis/mybatis-spring -->
<dependency>
  <groupId>org.mybatis</groupId>
  <artifactId>mybatis-spring</artifactId>
  <version>2.0.4</version>
</dependency>
```


3. pom.xml 추가 #5

File Upload (사용할 경우)

```
<!-- https://mvnrepository.com/artifact/commons-fileupload/commons-fileupload -->
<dependency>
  <groupId>commons-fileupload</groupId>
  <artifactId>commons-fileupload</artifactId>
  <version>1.4</version>
</dependency>
```

```
<!-- https://mvnrepository.com/artifact/commons-io/commons-io -->
<dependency>
  <groupId>commons-io</groupId>
  <artifactId>commons-io</artifactId>
  <version>2.8.0</version>
</dependency>
```



4. DB 연결 설정 파일 작성

`jdbc.properties` → `src/main/resources/ database` 폴더 생성 후 작성

```
jdbc.driverClassName=com.mysql.cj.jdbc.Driver
```

```
jdbc.url=jdbc:mysql://localhost:3306/my_db?serverTimezone=Asia/Seoul
```

```
jdbc.username=scsa
```

```
jdbc.password=1234
```

5. root-context.xml #1

DB 연결 설정, Connection Pool (DataSource)

<!-- Database - 연결 설정 파일 -->

<context:property-placeholder location="classpath:database/jdbc.properties" />

<!-- Database - 연결 설정 적용 DataSource -->

<bean id="dataSource" class="org.apache.commons.dbcp2.BasicDataSource">

 <property name="driverClassName" value="\${jdbc.driverClassName}" />

 <property name="url" value="\${jdbc.url}" />

 <property name="username" value="\${jdbc.username}" />

 <property name="password" value="\${jdbc.password}" />

</bean>

5. root-context.xml #2

mybatis

```
<!-- Database - Mybatis -->
<bean id="sqlSessionFactory" class="org.mybatis.spring.SqlSessionFactoryBean">
    <property name="dataSource" ref="dataSource" />
    <property name="configLocation" value="classpath:config/mybatis-config.xml"/>
    <property name="mapperLocations" value="classpath:mapper/*.xml"/>
</bean>

<!-- Database - Mybatis 적용 Dao package -->
<mybatis-spring:scan base-package="com.mycom.myapp.myboard.dao" />
```

6. servlet-context.xml #1

default

```
<!-- Enables the Spring MVC @Controller programming model -->
<annotation-driven />

<!-- Handles HTTP GET requests for /resources/** by efficiently serving up static resources in the $
<resources mapping="/resources/**" location="/resources/" />

<!-- Resolves views selected for rendering by @Controllers to .jsp resources in the /WEB-INF/views d
<beans:bean class="org.springframework.web.servlet.view.InternalResourceViewResolver">
    <beans:property name="prefix" value="/WEB-INF/views/" />
    <beans:property name="suffix" value=".jsp" />
</beans:bean>

<context:component-scan base-package="com.mycom.myboard" />
```

6. servlet-context.xml #2

file upload & interceptor

```
<!-- file size limit -->
<beans:bean id="multipartResolver" class="org.springframework.web.multipart.commons.CommonsMultipartResolver">
    <beans:property name="maxUploadSize" value="10485760" />
</beans:bean>

<!-- interceptor : LOGIN -->
<interceptors>
    <interceptor>
        <mapping path="/**"/>
        <exclude-mapping path="/login/**"/>
        <exclude-mapping path="/register/**"/>
        <exclude-mapping path="/resources/**"/>
        <beans:ref bean="loginInterceptor"/>
    </interceptor>
</interceptors>
```



7. web.xml

한글 처리

```
<!-- 한글 처리 -->
```

```
<filter>
```

```
    <filter-name>encodingFilter</filter-name>
```

```
    <filter-class>org.springframework.web.filter.CharacterEncodingFilter
```

```
    </filter-class>
```

```
    <init-param>
```

```
        <param-name>encoding</param-name>
```

```
        <param-value>UTF-8</param-value>
```

```
    </init-param>
```

```
</filter>
```

```
<filter-mapping>
```

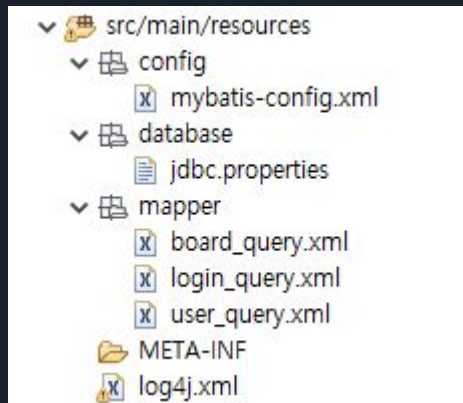
```
    <filter-name>encodingFilter</filter-name>
```

```
    <url-pattern>/*</url-pattern>
```

```
</filter-mapping>
```

8. mybatis config & mapper xml

`src/main/resources/`





9. Component Annotations

@Controller

@Service

@Repository(spring-jdbc, class 에) 또는 @Mapper (with Mybatis , interface 에)

10. Transaction 을 적용할 경우

root-context.xml

```
<context:component-scan
    base-package="com.mycom.myboard.service, com.mycom.myboard.dao"></context:component-scan>

<!-- id 고정 -->
<bean id="transactionManager" class="org.springframework.jdbc.datasource.DataSourceTransactionManager">
    <property name="dataSource" ref="dataSource"></property>
</bean>

<tx:annotation-driven/>
```

servlet-context.xml

```
<context:component-scan base-package="com.mycom.myboard.controller" />
```

component-scan 분리 또는 tx 설정을 servlet-context.xml 에!!



11. Aspect

root-context.xml

```
<context:component-scan  
    base-package="com.mycom.myboard.aspect"></context:component-scan>  
<aop:aspectj-autoproxy/>
```

aspectj 및 Aspect Class 가 포함된 package 만 component-scan 추가

12. GlobalException

servlet-context.xml

```
<context:component-scan  
base-package="com.mycom.myboard.controller, com.mycom.myboard.common, com.mycom.myboard.config" />
```

GlobalException 이 포함된 package 추가

```
▼ com.mycom.myboard.config  
  > GlobalExceptionHandler.java
```

13. log4j.xml

rolling appender

```
<!-- Appenders 새로 추가 -->
<appender name="RollingAppender" class="org.apache.log4j.DailyRollingFileAppender">
  <param name="File" value="F:/SSAFY/ssafy6_sts3/SpringMVCAvanced/src/main/resources/log/app.log" />
  <param name="DatePattern" value="'.' 'yyyy-MM-dd" />
  <layout class="org.apache.log4j.PatternLayout">
    <param name="ConversionPattern" value="[%p] %d %c %M - %m%n" />
  </layout>
</appender>
```

```
<root>
  <priority value="info" />
  <appender-ref ref="console" />
  <appender-ref ref="RollingAppender" />
</root>
```

일자별 폴더 생성 및 로그 파일 생성

File 경로 주의

Mybatis 사용할 경우 level 조정

```
<!-- Application Loggers -->
<logger name="com.mycom.myadv">
  <level value="debug" />
</logger>
```

14. JUnit 4 사용할 경우

pom.xml

```
<!-- Test -->
<!-- https://mvnrepository.com/artifact/junit/junit -->
<dependency>
  <groupId>junit</groupId>
  <artifactId>junit</artifactId>
  <version>4.13.1</version>
  <scope>test</scope>
</dependency>
<!-- https://mvnrepository.com/artifact/org.springframework/spring-test -->
<dependency>
  <groupId>org.springframework</groupId>
  <artifactId>spring-test</artifactId>
  <version>${org.springframework-version}</version>
  <scope>test</scope>
</dependency>
<!-- https://mvnrepository.com/artifact/mysql/mysql-connector-java -->
<dependency>
  <groupId>mysql</groupId>
  <artifactId>mysql-connector-java</artifactId>
  <version>8.0.22</version>
</dependency>
```

JUnit version up, spring-test, jdbc driver (for JUnit Test ← not using Tomcat)