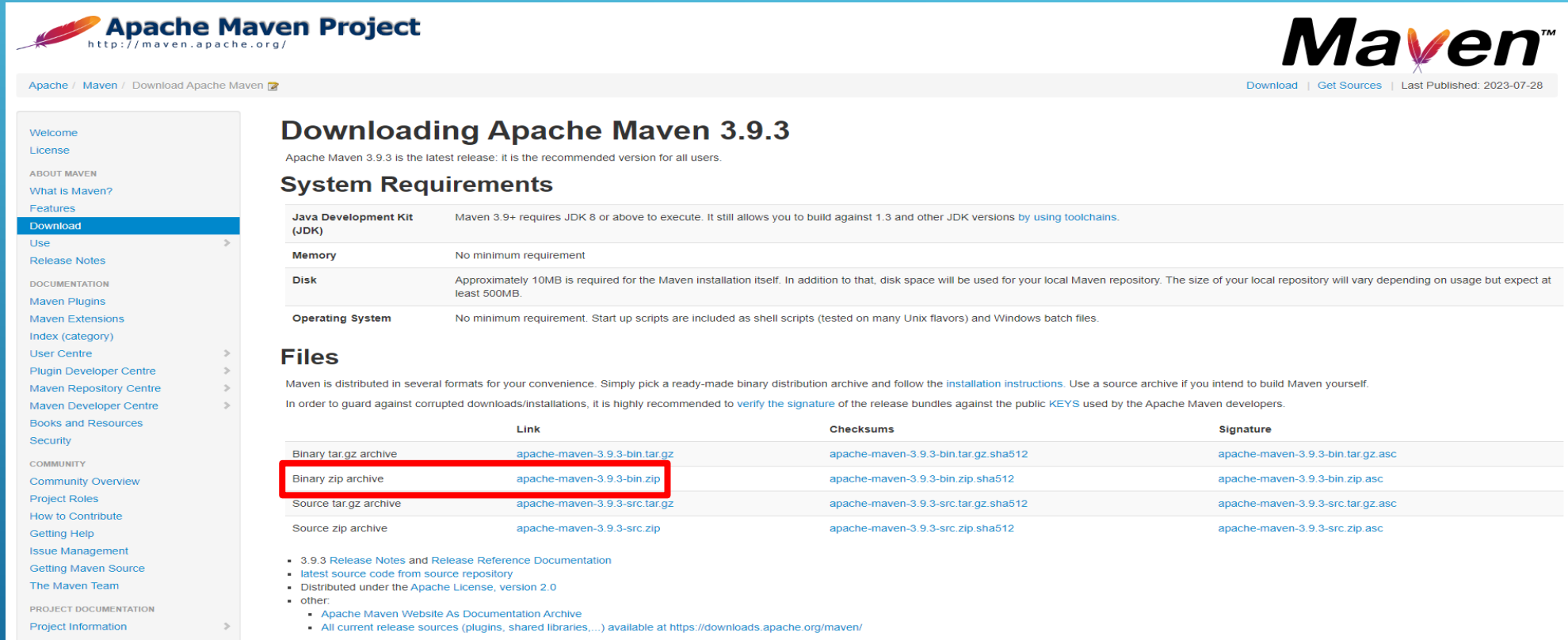


Spring MVC+Mybatis+JSTL

김대경

Several white lines of varying lengths and slopes are positioned in the bottom right corner of the slide, creating a modern, abstract graphic element.

이클립스 2020-06 버전 다운로드 : -> tomcat 설치 먼저
https://www.eclipse.org/downloads/packages/release/2020-06/r
Maven 다운로드 : https://maven.apache.org/download.cgi



Apache Maven Project
http://maven.apache.org/

Download | Get Sources | Last Published: 2023-07-28

Downloading Apache Maven 3.9.3

Apache Maven 3.9.3 is the latest release: it is the recommended version for all users.

System Requirements

Java Development Kit (JDK)	Maven 3.9+ requires JDK 8 or above to execute. It still allows you to build against 1.3 and other JDK versions by using toolchains .
Memory	No minimum requirement
Disk	Approximately 10MB is required for the Maven installation itself. In addition to that, disk space will be used for your local Maven repository. The size of your local repository will vary depending on usage but expect at least 500MB.
Operating System	No minimum requirement. Start up scripts are included as shell scripts (tested on many Unix flavors) and Windows batch files.

Files

Maven is distributed in several formats for your convenience. Simply pick a ready-made binary distribution archive and follow the [installation instructions](#). Use a source archive if you intend to build Maven yourself.

In order to guard against corrupted downloads/installations, it is highly recommended to [verify the signature](#) of the release bundles against the public [KEYS](#) used by the Apache Maven developers.

	Link	Checksums	Signature
Binary tar.gz archive	apache-maven-3.9.3-bin.tar.gz	apache-maven-3.9.3-bin.tar.gz.sha512	apache-maven-3.9.3-bin.tar.gz.asc
Binary zip archive	apache-maven-3.9.3-bin.zip	apache-maven-3.9.3-bin.zip.sha512	apache-maven-3.9.3-bin.zip.asc
Source tar.gz archive	apache-maven-3.9.3-src.tar.gz	apache-maven-3.9.3-src.tar.gz.sha512	apache-maven-3.9.3-src.tar.gz.asc
Source zip archive	apache-maven-3.9.3-src.zip	apache-maven-3.9.3-src.zip.sha512	apache-maven-3.9.3-src.zip.asc

- 3.9.3 [Release Notes and Release Reference Documentation](#)
- latest [source code](#) from source repository
- Distributed under the [Apache License](#), version 2.0
- other:
 - [Apache Maven Website As Documentation Archive](#)
 - All current release sources (plugins, shared libraries,...) available at <https://downloads.apache.org/maven/>

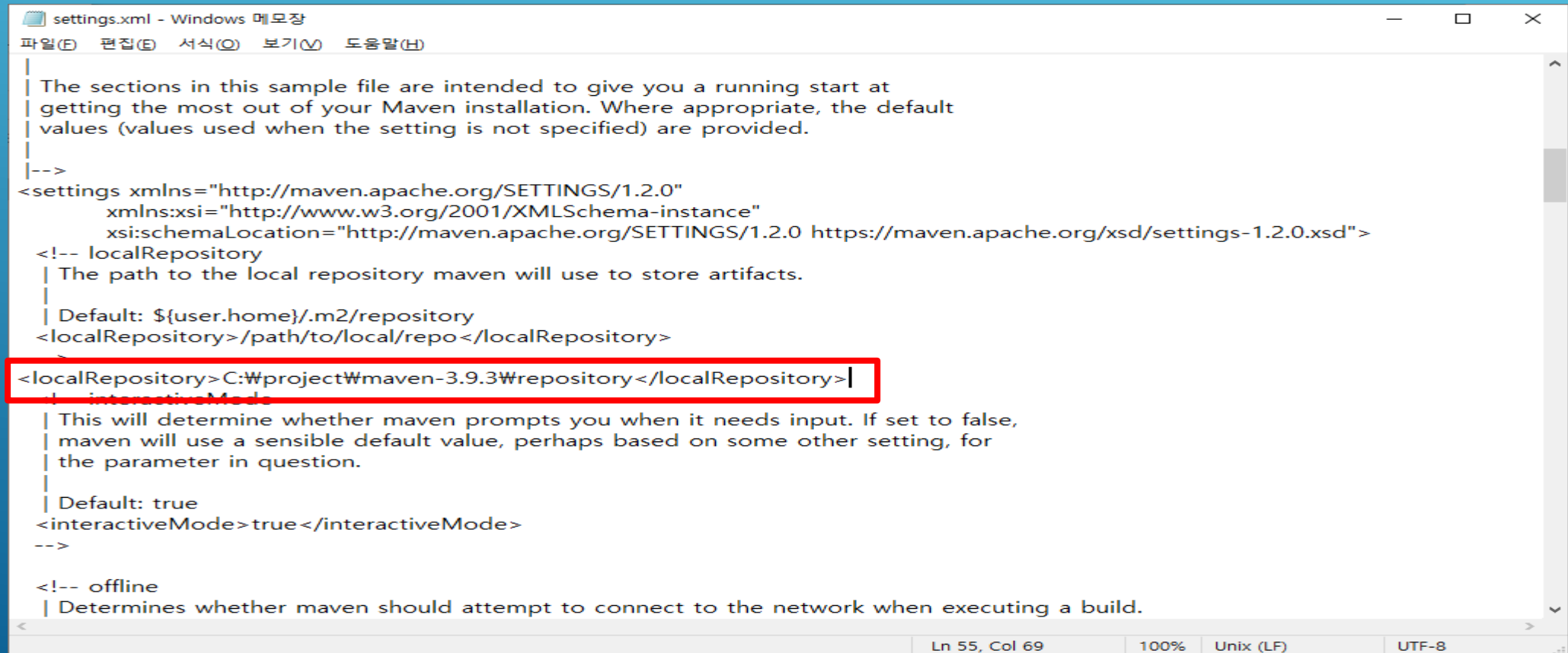
apache-maven-3.9.3-bin.zip
다운로드 완료후 C:\project\maven-3.9.3 폴더로 압축 풀기

Maven 설정 파일

-. settings.xml (C:\project\maven-3.9.3\conf)

메이븐 빌드 툴과 관련한 설정파일

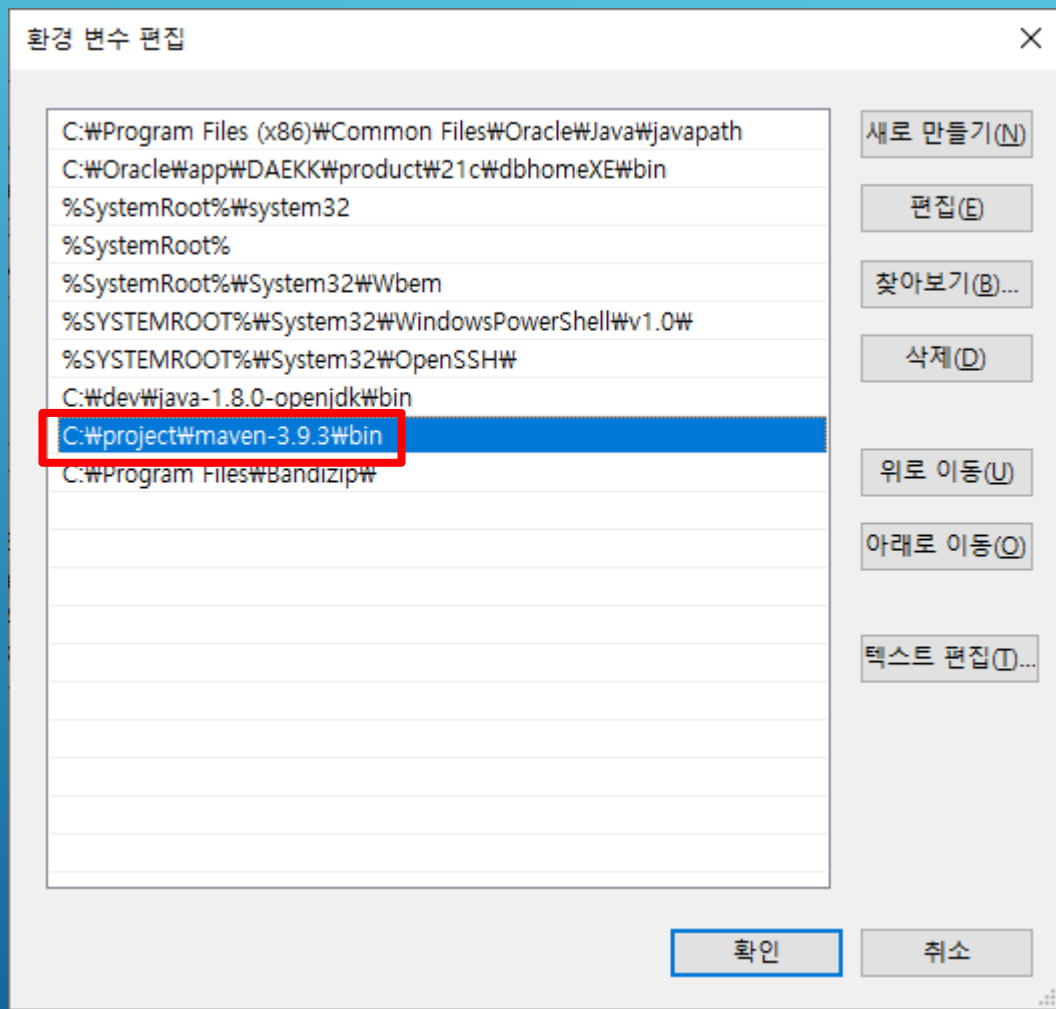
C:\project\maven-3.9.3\repository 폴더생성



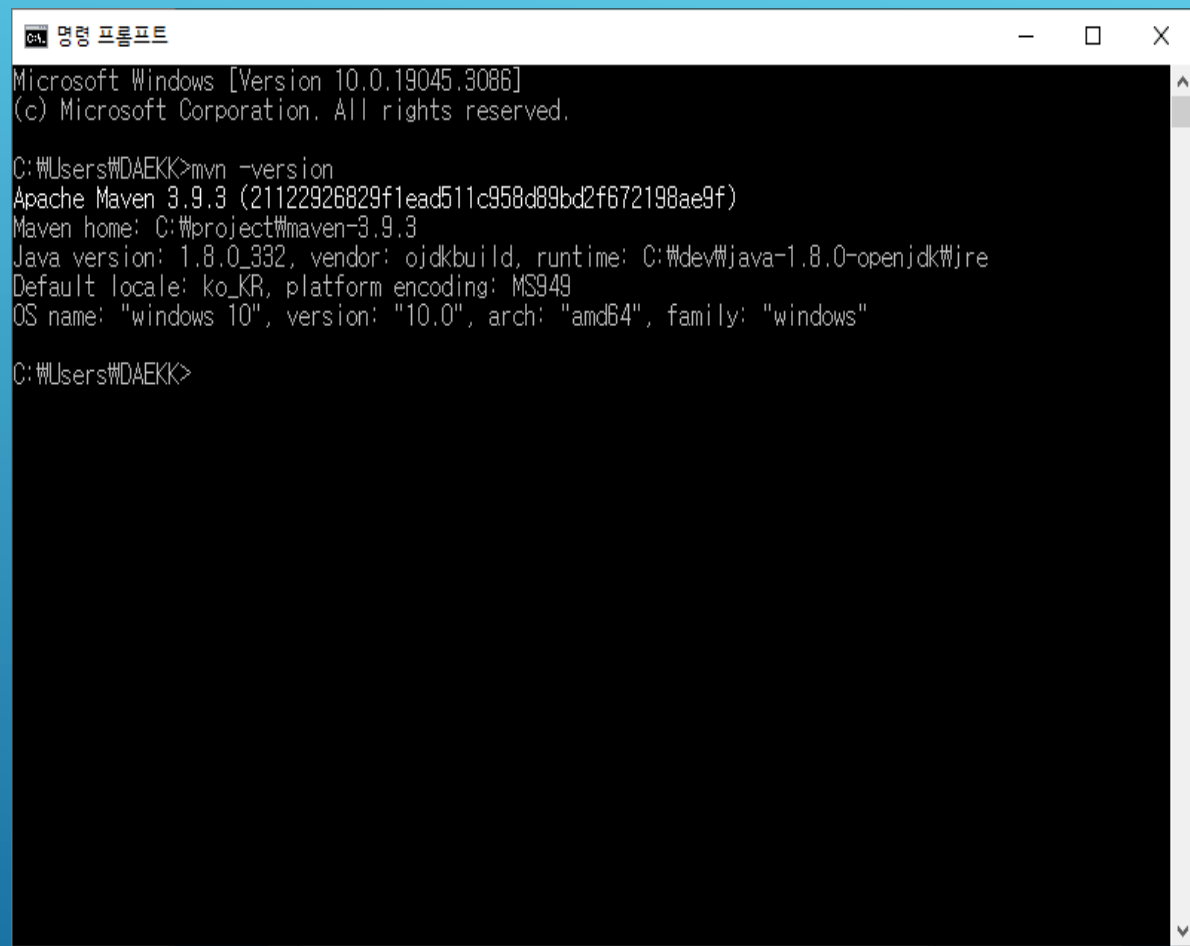
```
settings.xml - Windows 메모장
파일(F) 편집(E) 서식(O) 보기(V) 도움말(H)

| The sections in this sample file are intended to give you a running start at
| getting the most out of your Maven installation. Where appropriate, the default
| values (values used when the setting is not specified) are provided.
|
|-->
<settings xmlns="http://maven.apache.org/SETTINGS/1.2.0"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://maven.apache.org/SETTINGS/1.2.0 https://maven.apache.org/xsd/settings-1.2.0.xsd">
  <!-- localRepository
  | The path to the local repository maven will use to store artifacts.
  |
  | Default: ${user.home}/.m2/repository
  <localRepository>/path/to/local/repo</localRepository>
  <localRepository>C:\project\maven-3.9.3\repository</localRepository>
  <!-- interactiveMode
  | This will determine whether maven prompts you when it needs input. If set to false,
  | maven will use a sensible default value, perhaps based on some other setting, for
  | the parameter in question.
  |
  | Default: true
  <interactiveMode>true</interactiveMode>
  -->
  <!-- offline
  | Determines whether maven should attempt to connect to the network when executing a build.
```

Maven 환경변수 설정



환경변수 설정후 설정여부 확인 - mvn -version



STS 설치를 위해 openlogic-openjdk-11.0.19+7-windows-x64.zip 설치

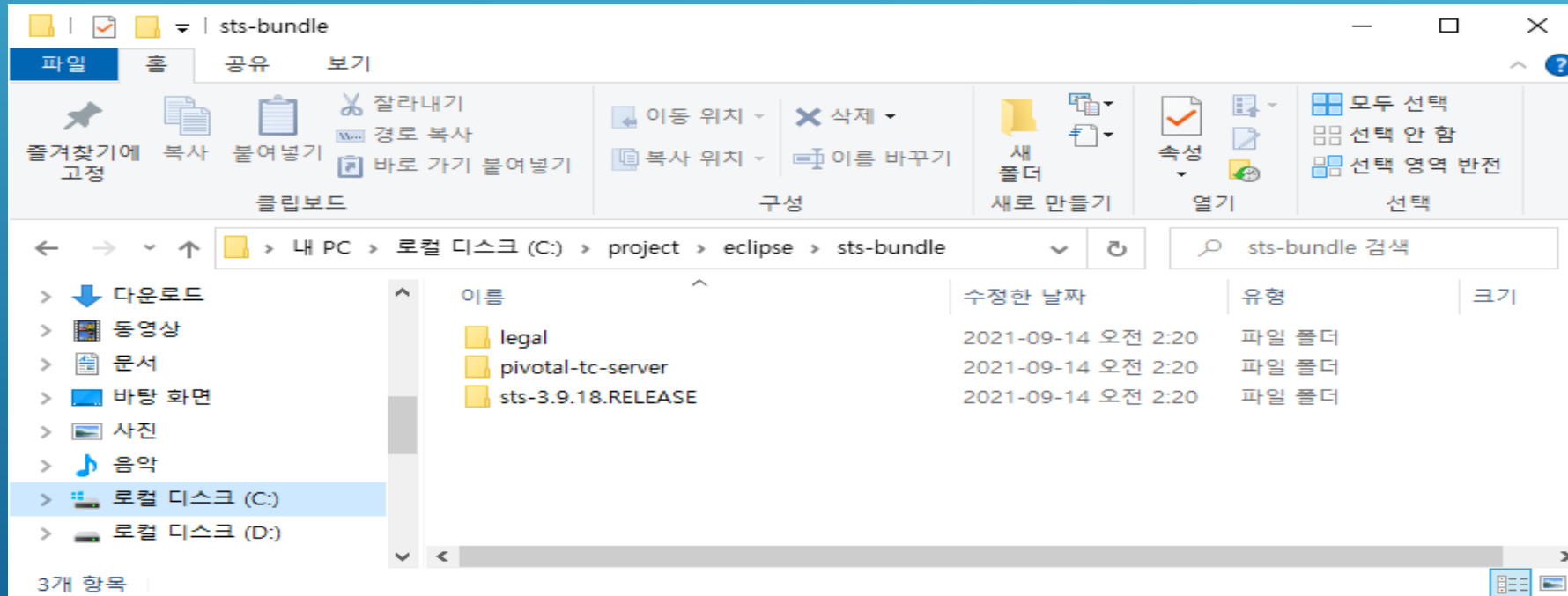
C:\dev\openlogic-openjdk-11.0.19+7-windows-x64 압축을 푼다.

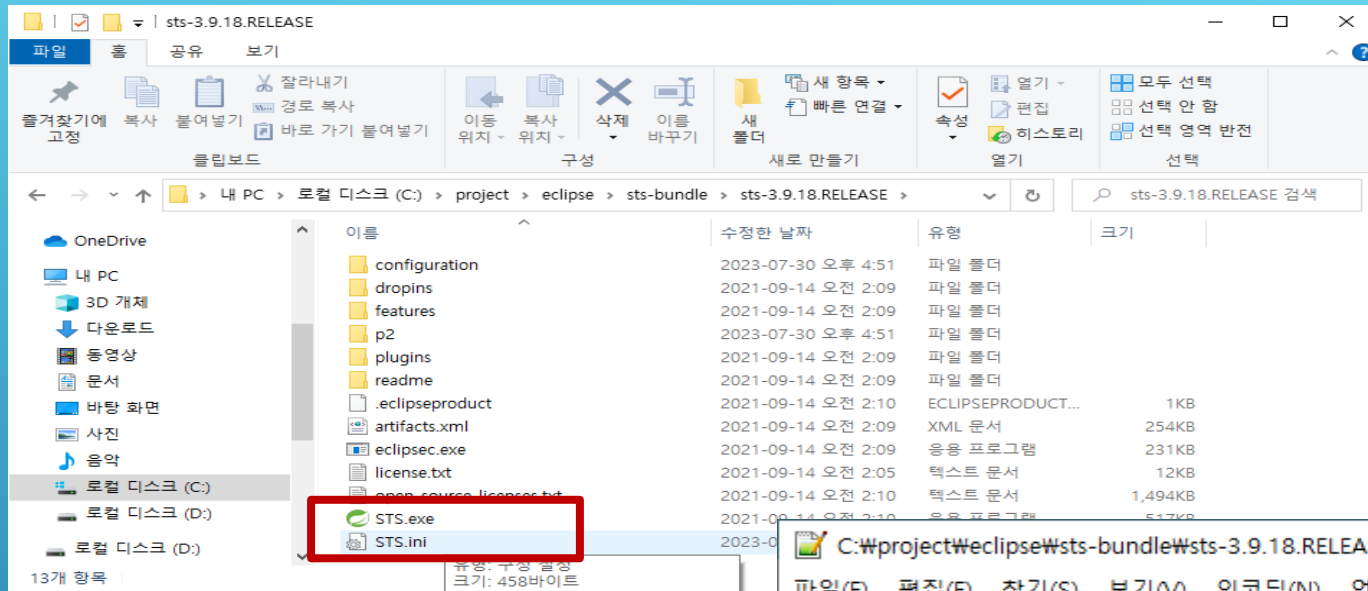
https://www.openlogic.com/openjdk-downloads?field_java_parent_version_target_id=406&field_operating_system_target_id=436&field_architecture_target_id=391&field_j

STS 설치

spring-tool-suite-3.9.18.RELEASE-e4.21.0-win32-x86_64.zip 파일 압축을 푼다.

C:\project\eclipse\sts-bundle 압축 풀림.





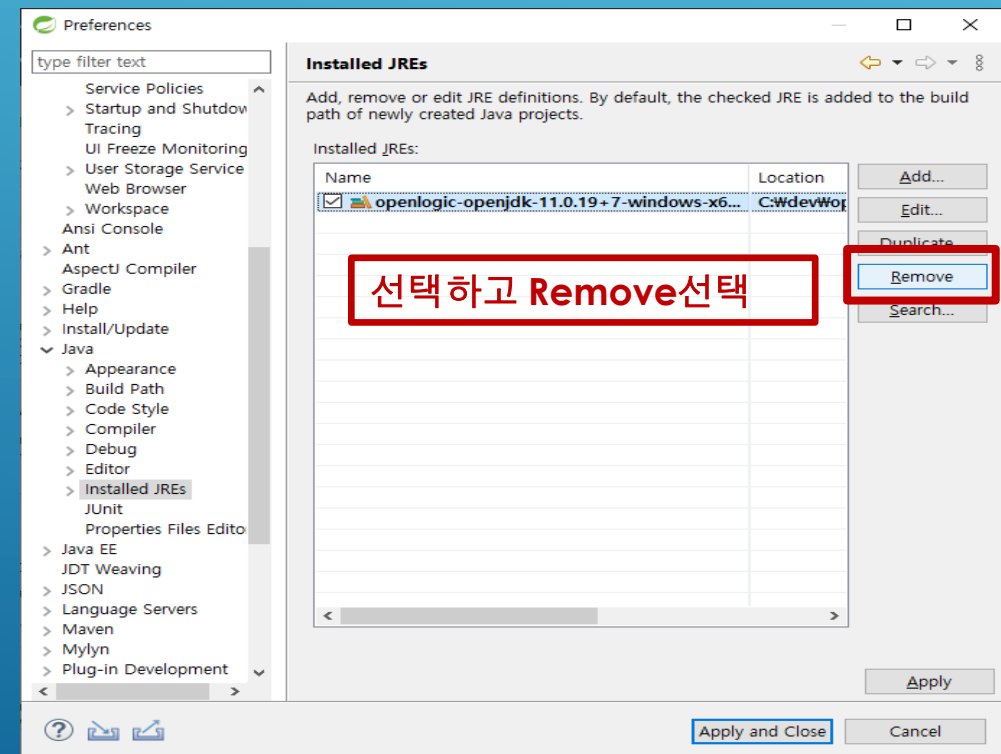
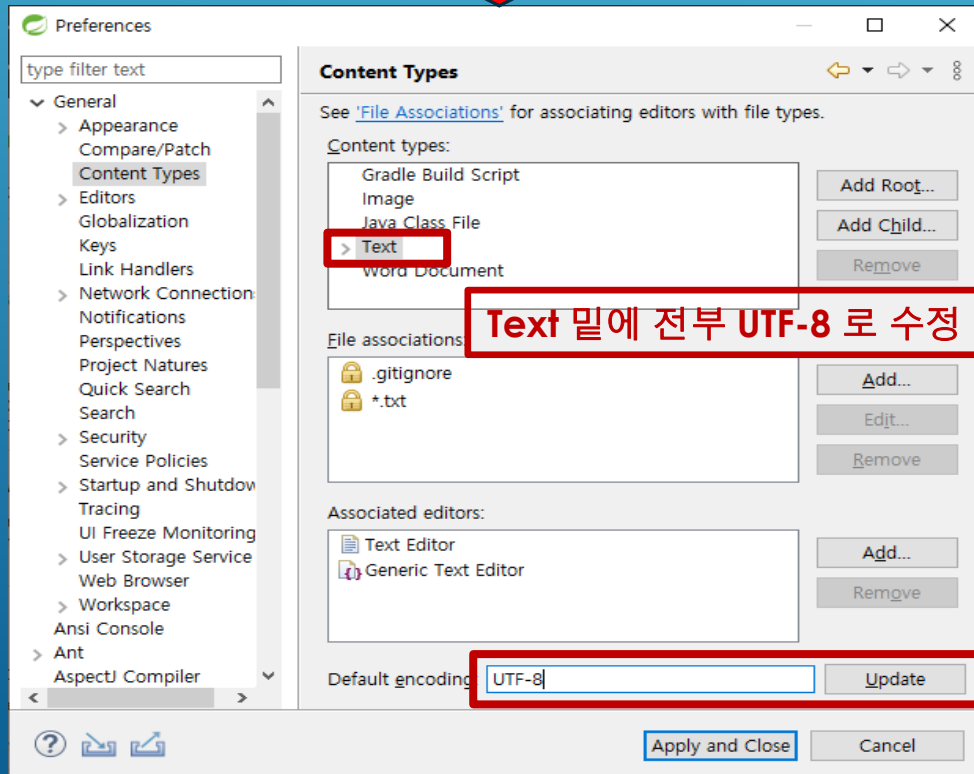
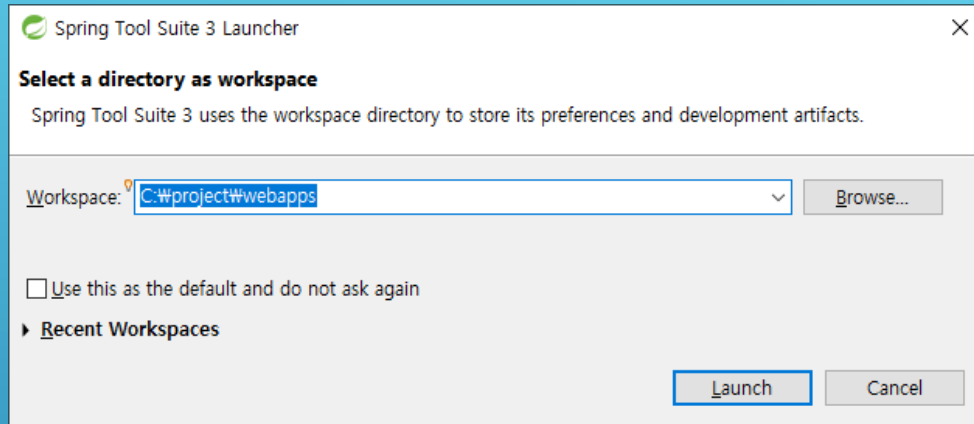
STS.ini 파일에 openjdk 11 바라보도록 설정

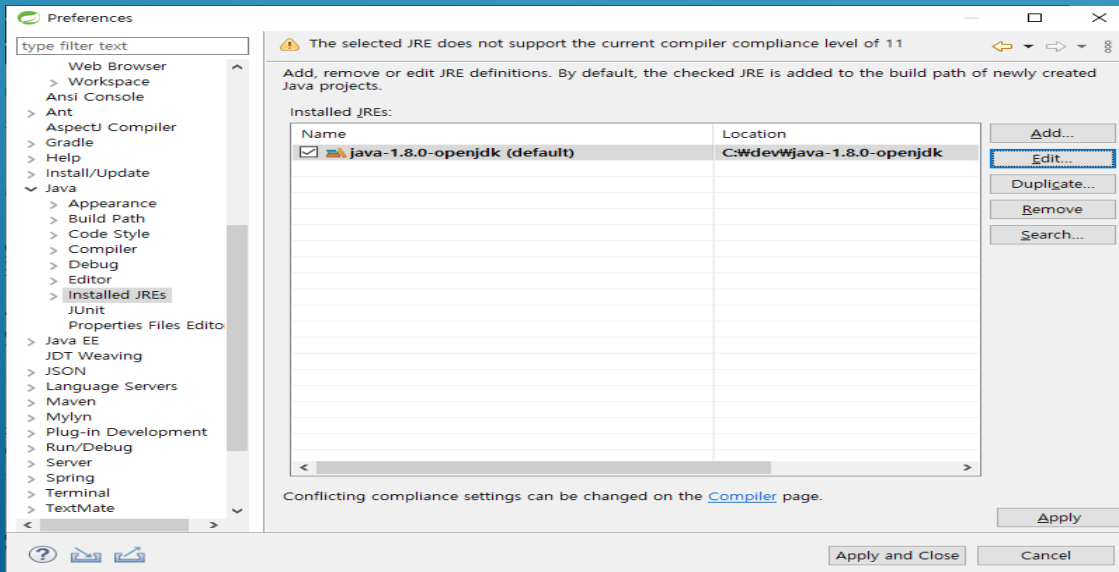
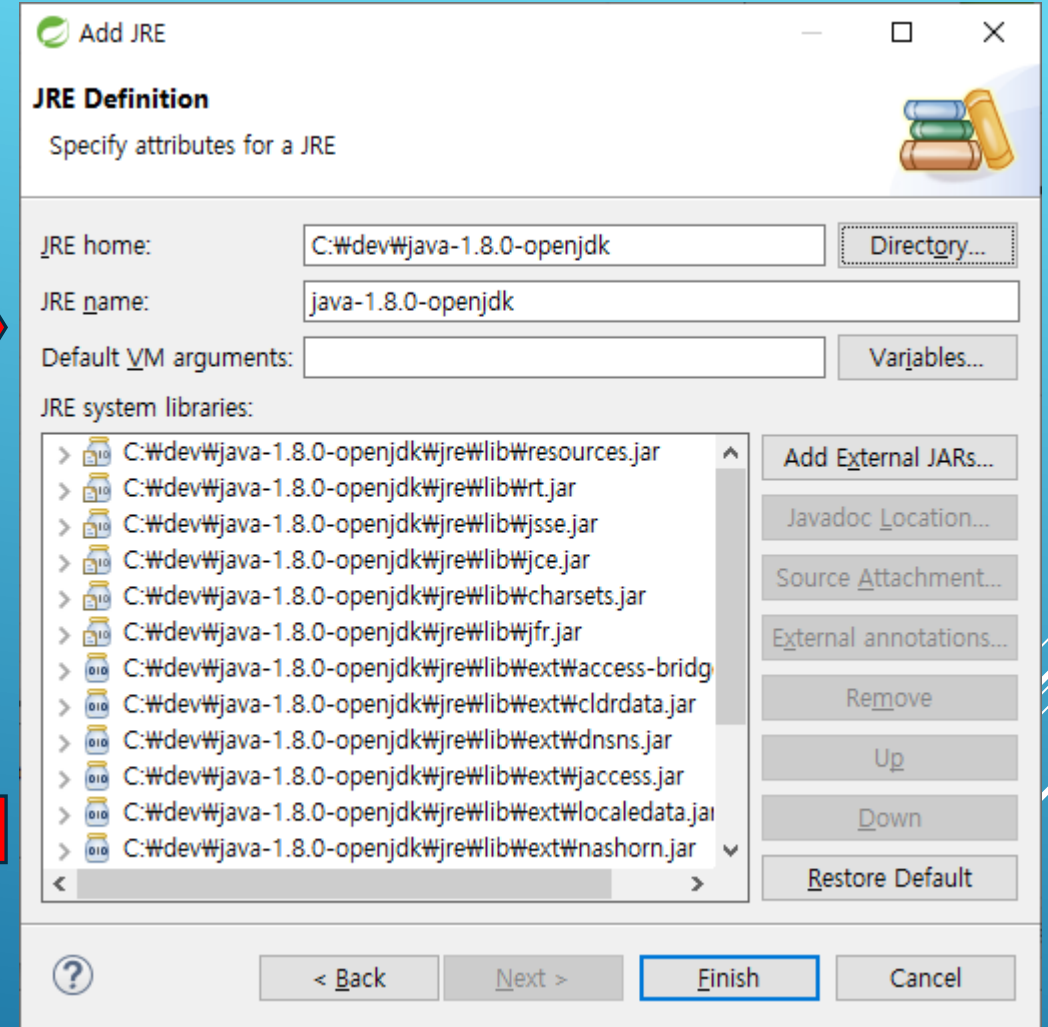
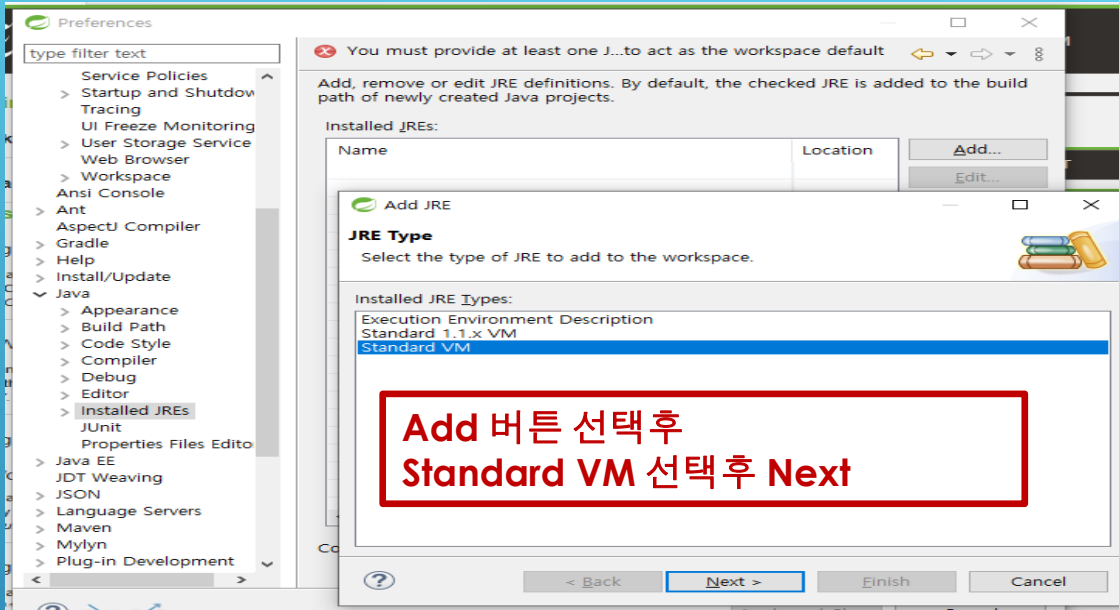
STS.ini 파일 수정
Open jdk 11로 실행 경로 지정

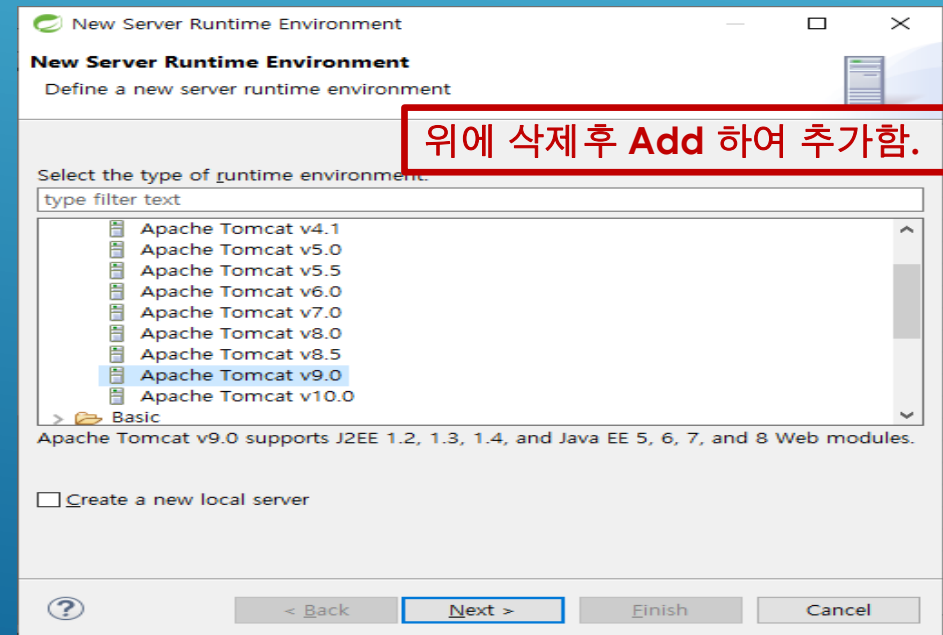
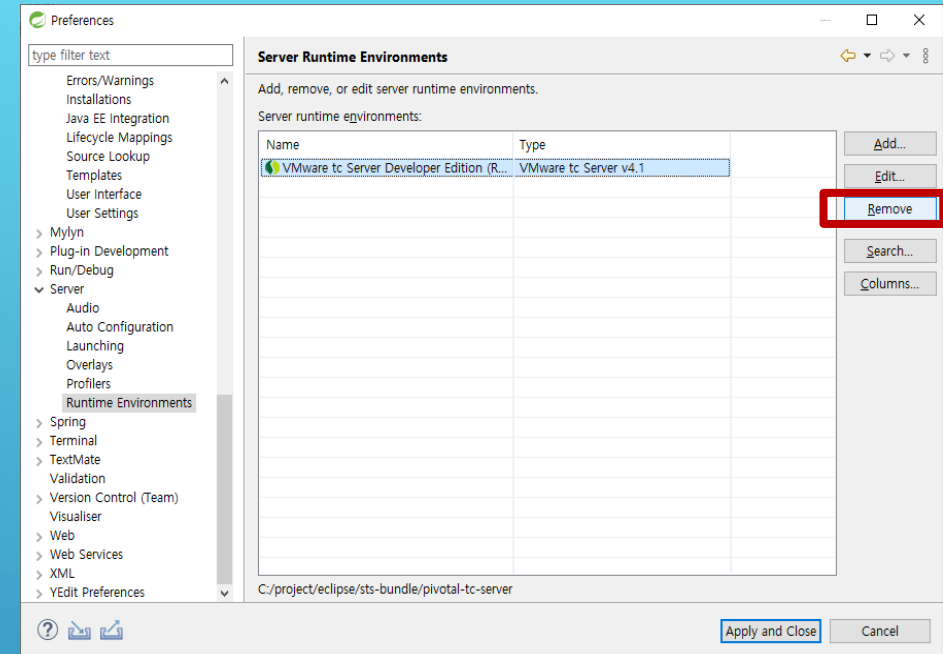
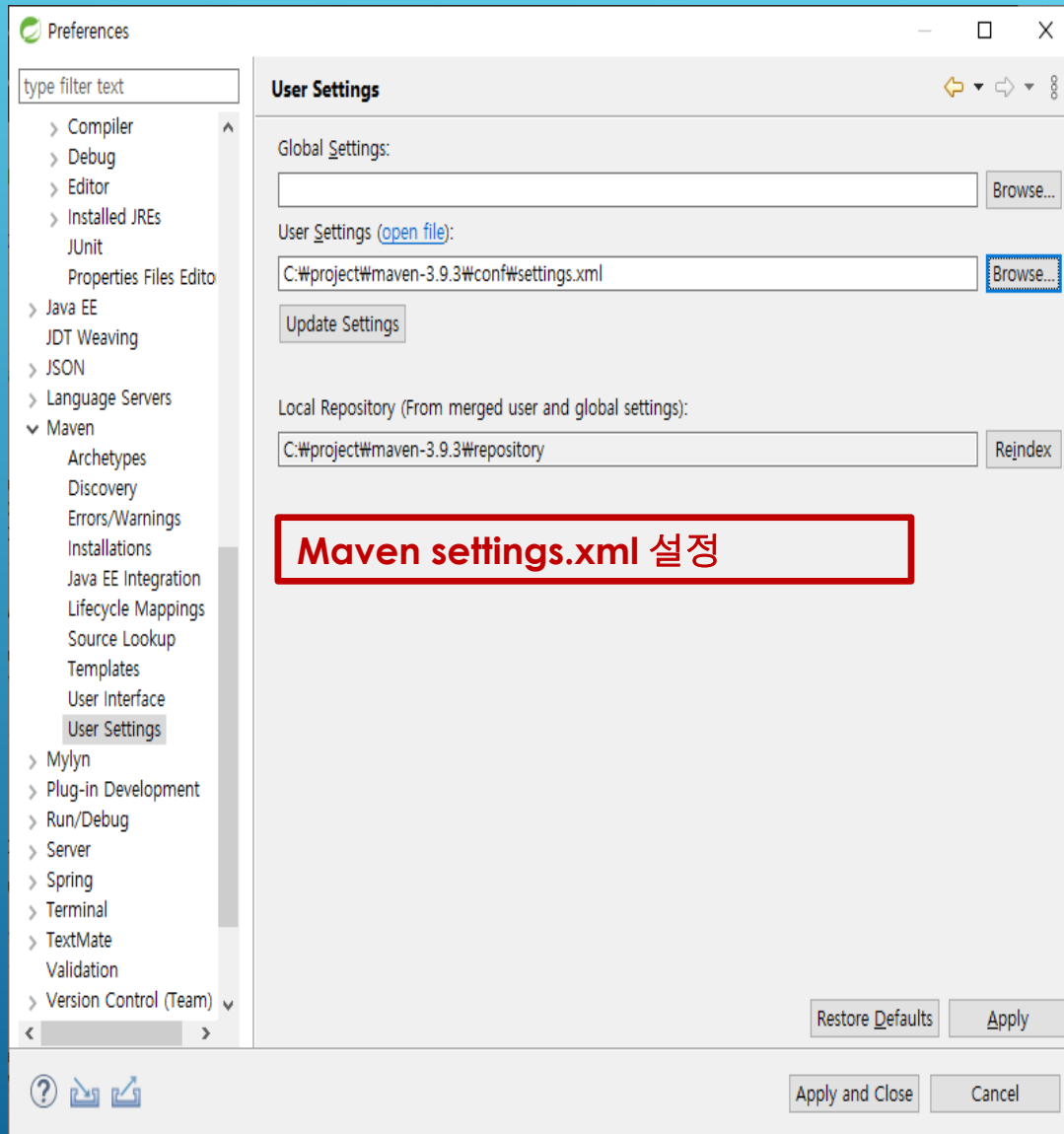
저장후
실행은 STS.exe 로 실행

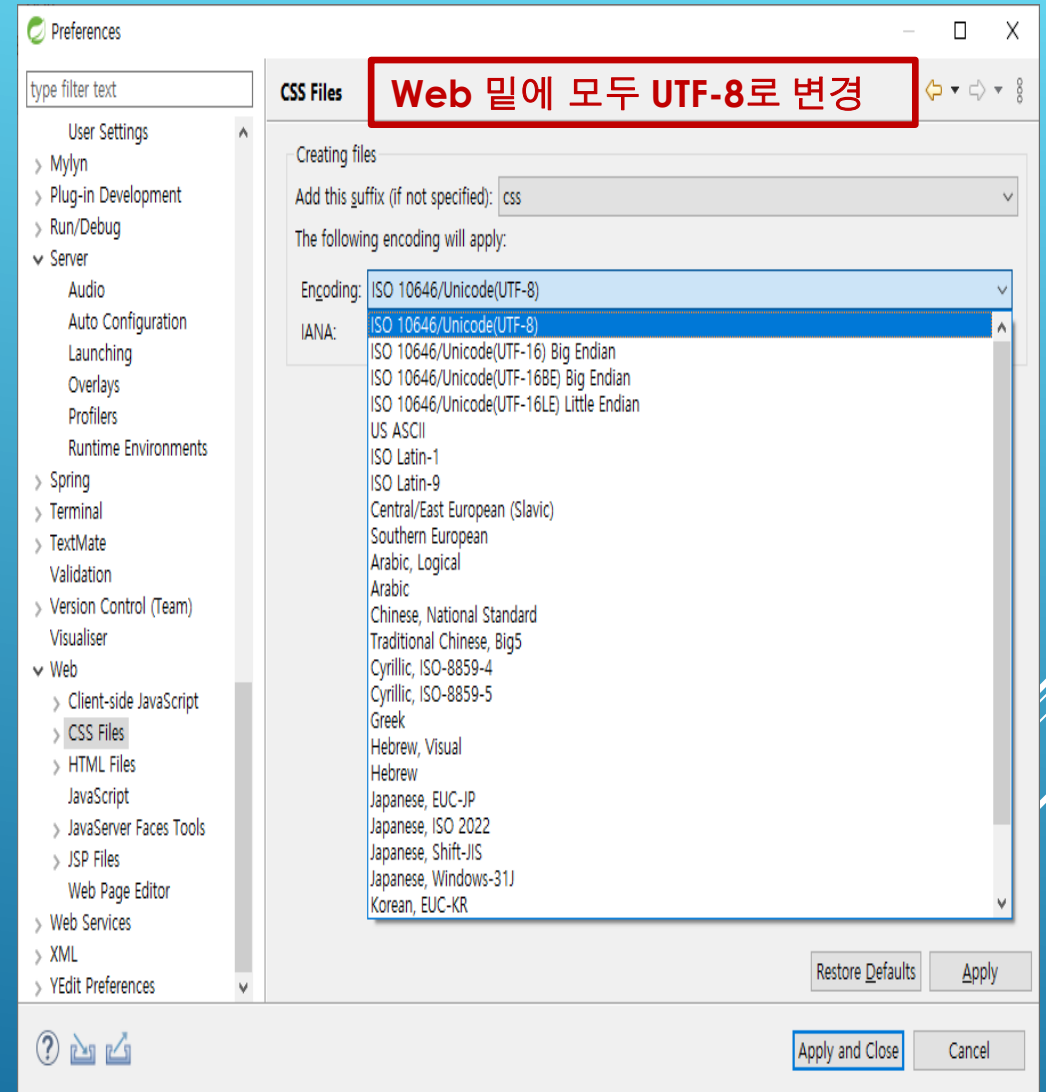
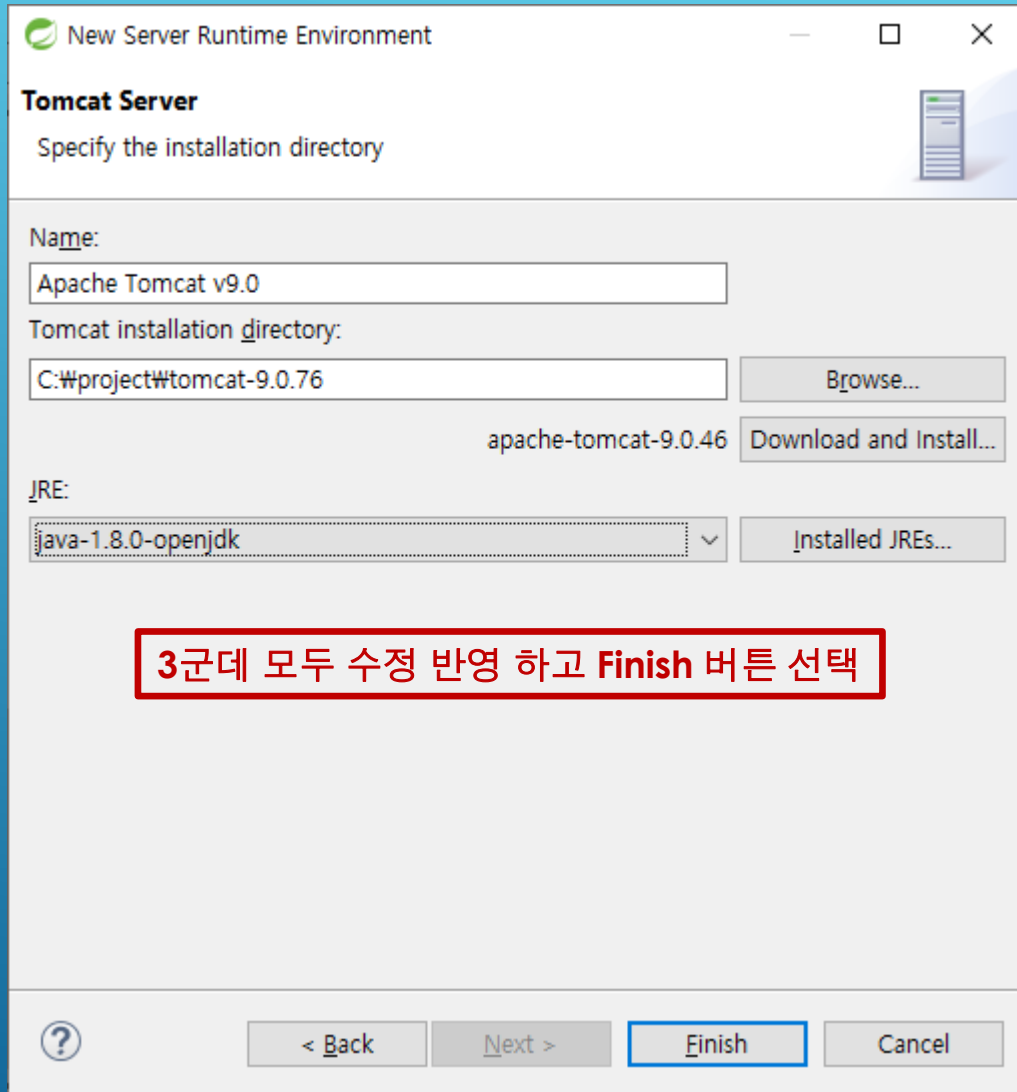
```
C:\project\eclipse\sts-bundle\sts-3.9.18.RELEASE\STS.ini - Notepad++
파일(F) 편집(E) 찾기(S) 보기(V) 인코딩(N) 언어(L) 설정(I) 도구(O) 매크로 실행 플러그인 창 관리 ?
change.log x STS.ini x
1 -vm
2 C:\dev\openlogic-openjdk-11.0.19+7-windows-x64\bin\javaw.exe
3 -startup
4 plugins/org.eclipse.equinox.launcher_1.6.300.v20210813-1054.jar
5 --launcher.library
6 plugins/org.eclipse.equinox.launcher.win32.win32.x86_64_1.2.300.v20210828-0802
7 -product
8 org.springframework.sts.ide
9 --launcher.defaultAction
10 openFile
11 -vmargs
12 -Dosgi.requiredJavaVersion=11
13 -Dosgi.uiAreaRequiresExplicitInit=true
14 -Xms1024m
15 -Xmx2048m
16 --add-modules=ALL-SYSTEM
17 -Dosgi.module.lock.timeout=10
18
MS length : 458 lines : 18 Ln : 2 Col : 61 Pos : 65 Unix (LF) UTF-8 INS
```

STS.exe 실행 (C:\project\eclipse\sts-bundle\sts-3.9.18.RELEASE\STS.exe)



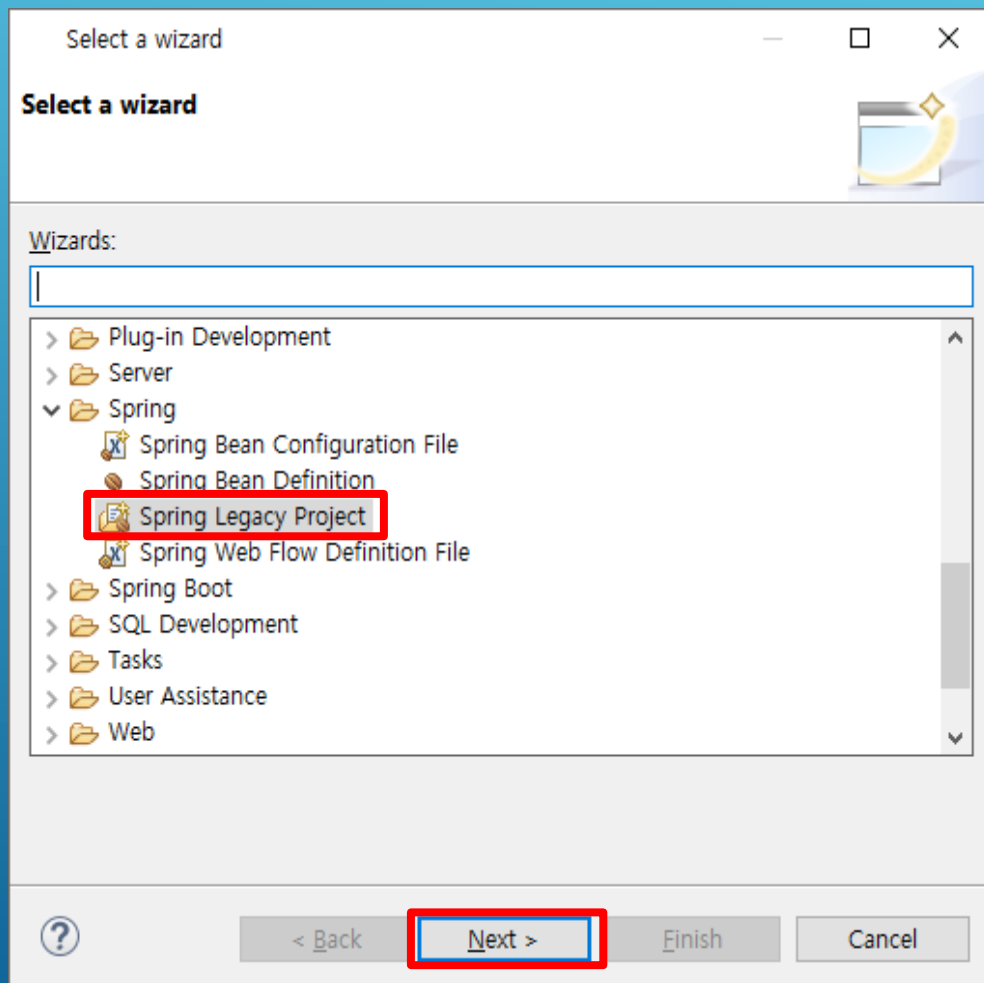




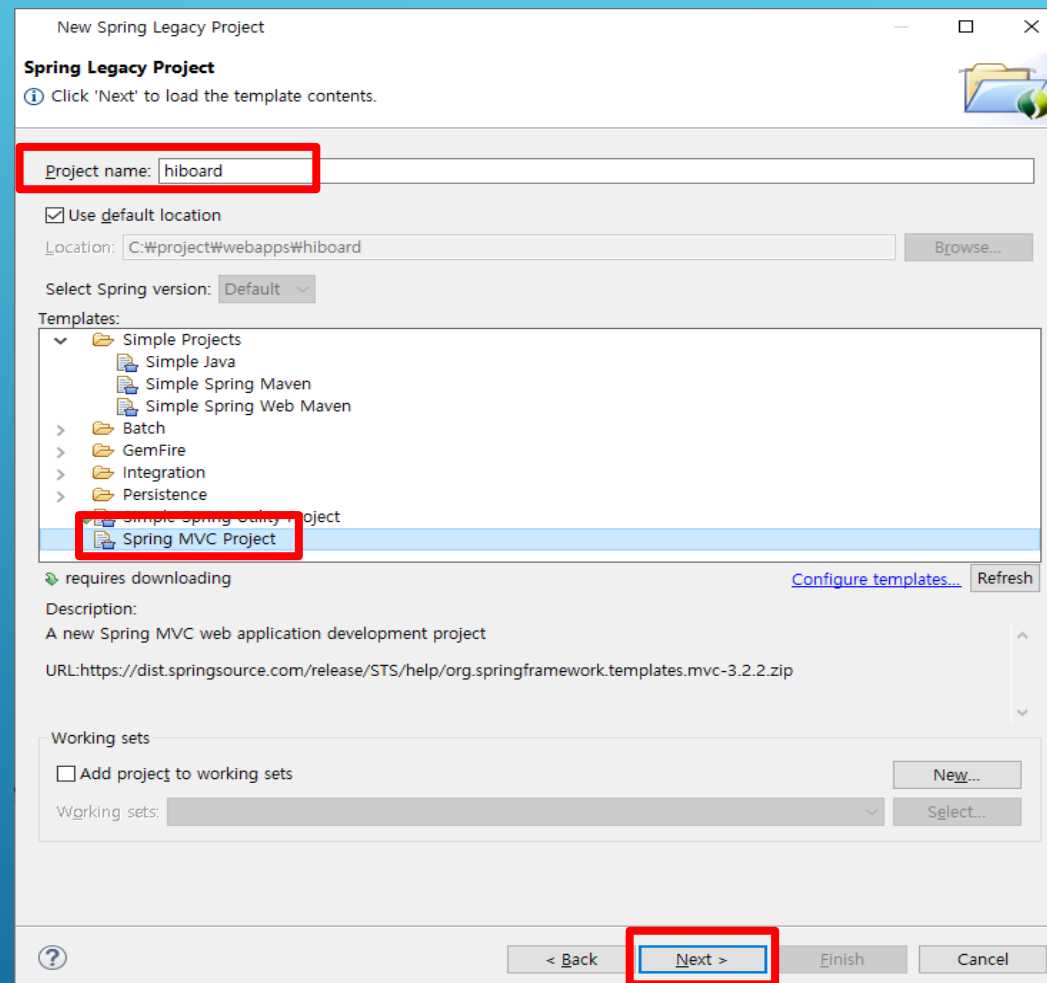


스프링 MVC 프로젝트 생성

- 메뉴 File -> New -> other 선택



- project name 에 hiboard 입력



New Spring Legacy Project

Spring Legacy Project

Click 'Next' to load the template contents.

Project name: hiboard

☒ Use default location

Location: C:\project\webapps\hiboard

Select Spring version: Default

Templates:

Simple Projects

Simple Java

Simple Java

Simple Java

Batch

GemF

Integr

Persist

Simple

Spring

Import

Spring MVC Project requires a download of 16608 bytes.

Proceed?

Yes

No

requires downloading

[Configure templates...](#)

Refresh

Description:

A new Spring MVC web application development project

URL:https://dist.springsource.com/release/STS/help/org.springframework.templates.mvc-3.2.2.zip

Working sets

☐ Add project to working sets

New...

Working sets:

Select...

Download template Spring MVC Project

?

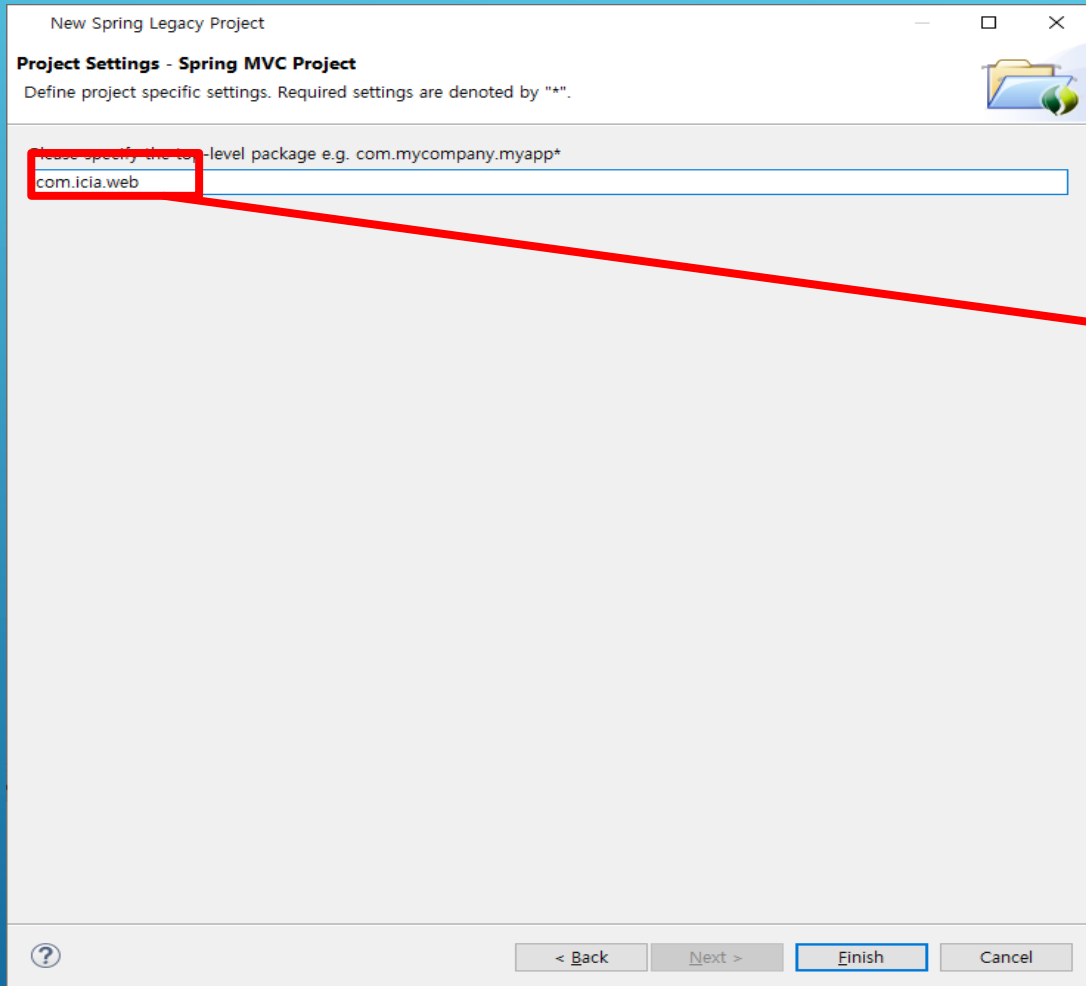
< Back

Next >

Finish

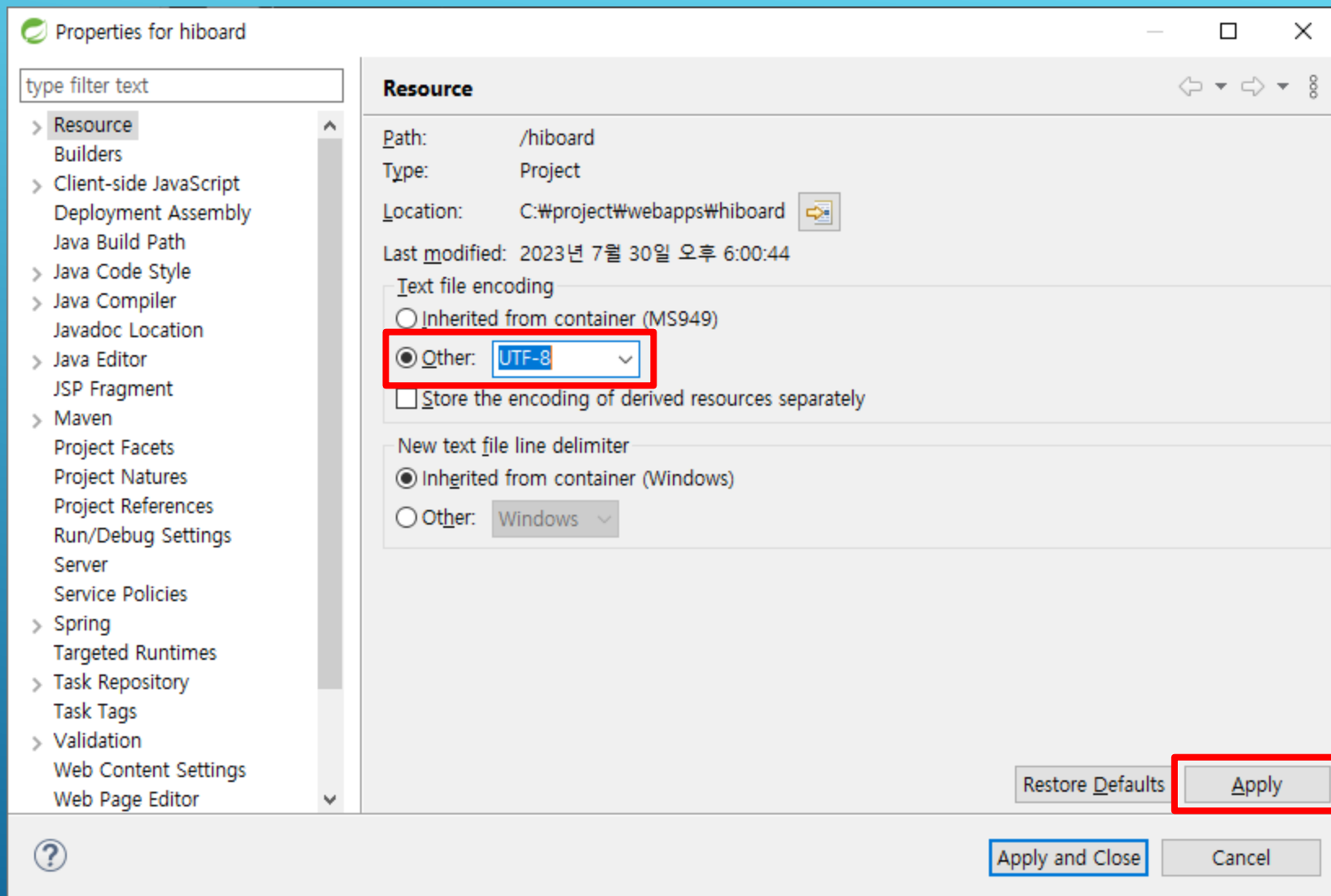
Cancel

- MVC project package 최소 3단계로 설정

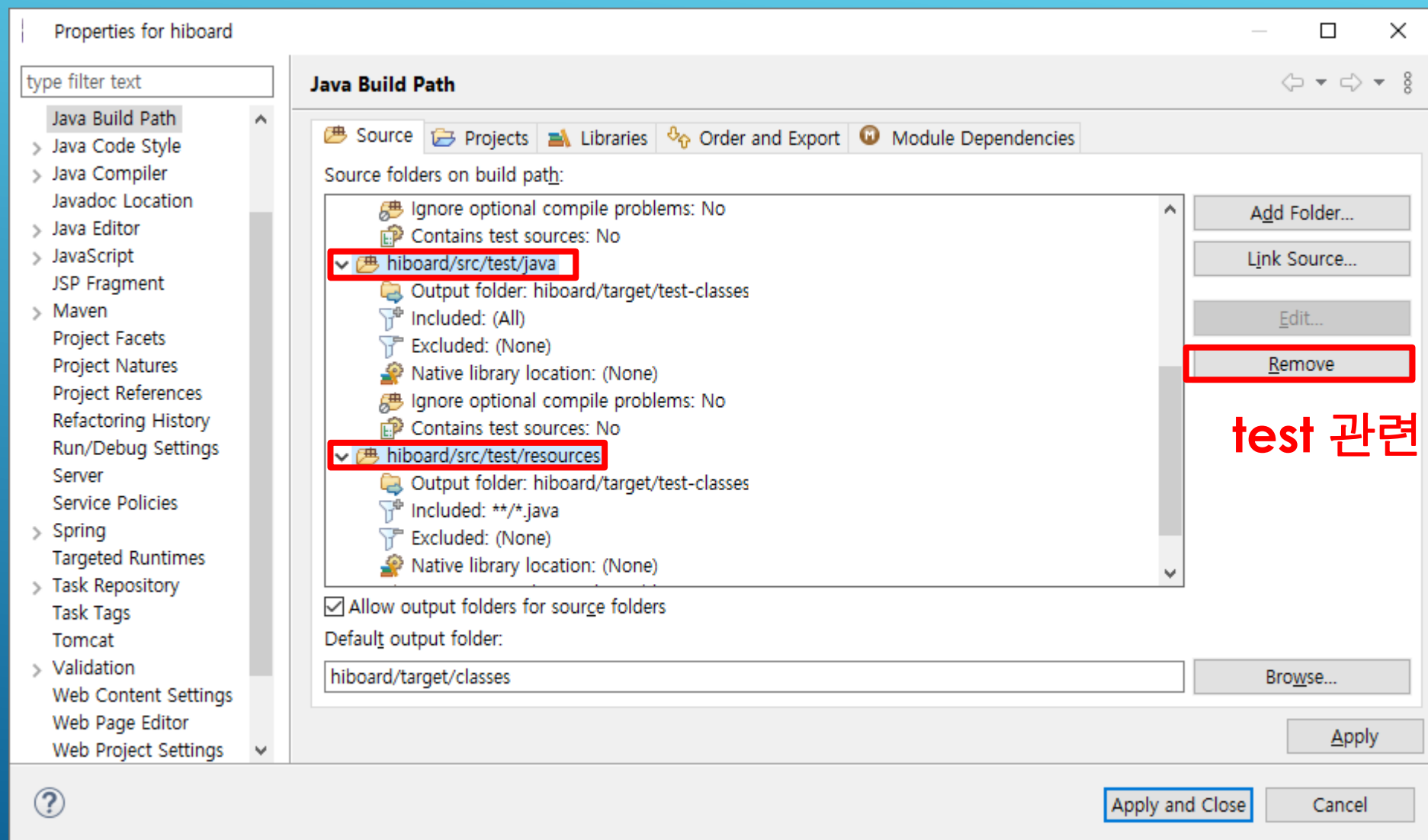


com.icia.web 으로 설정

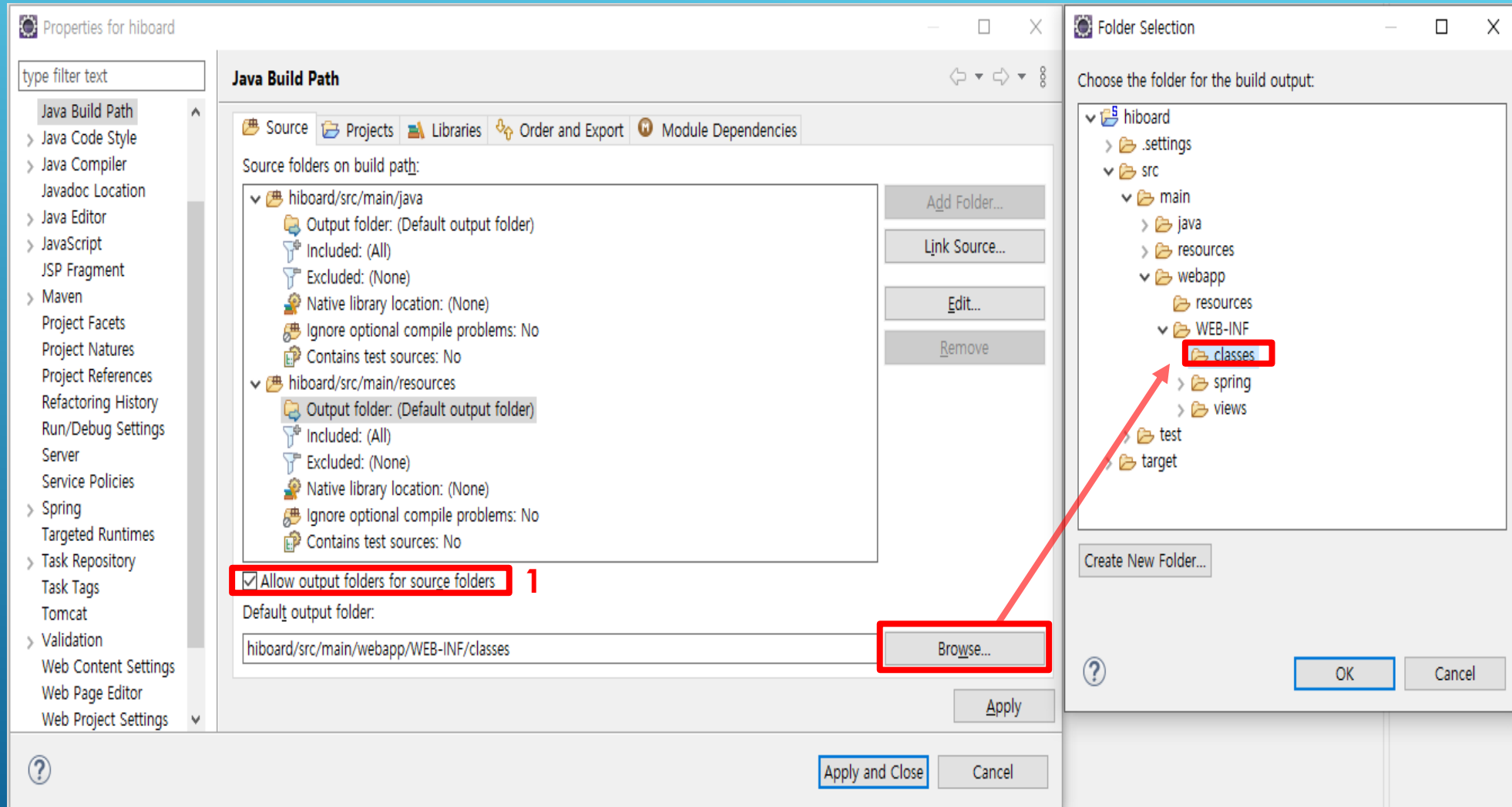
관리자 인 경우
com.icia.admin 으로 설정

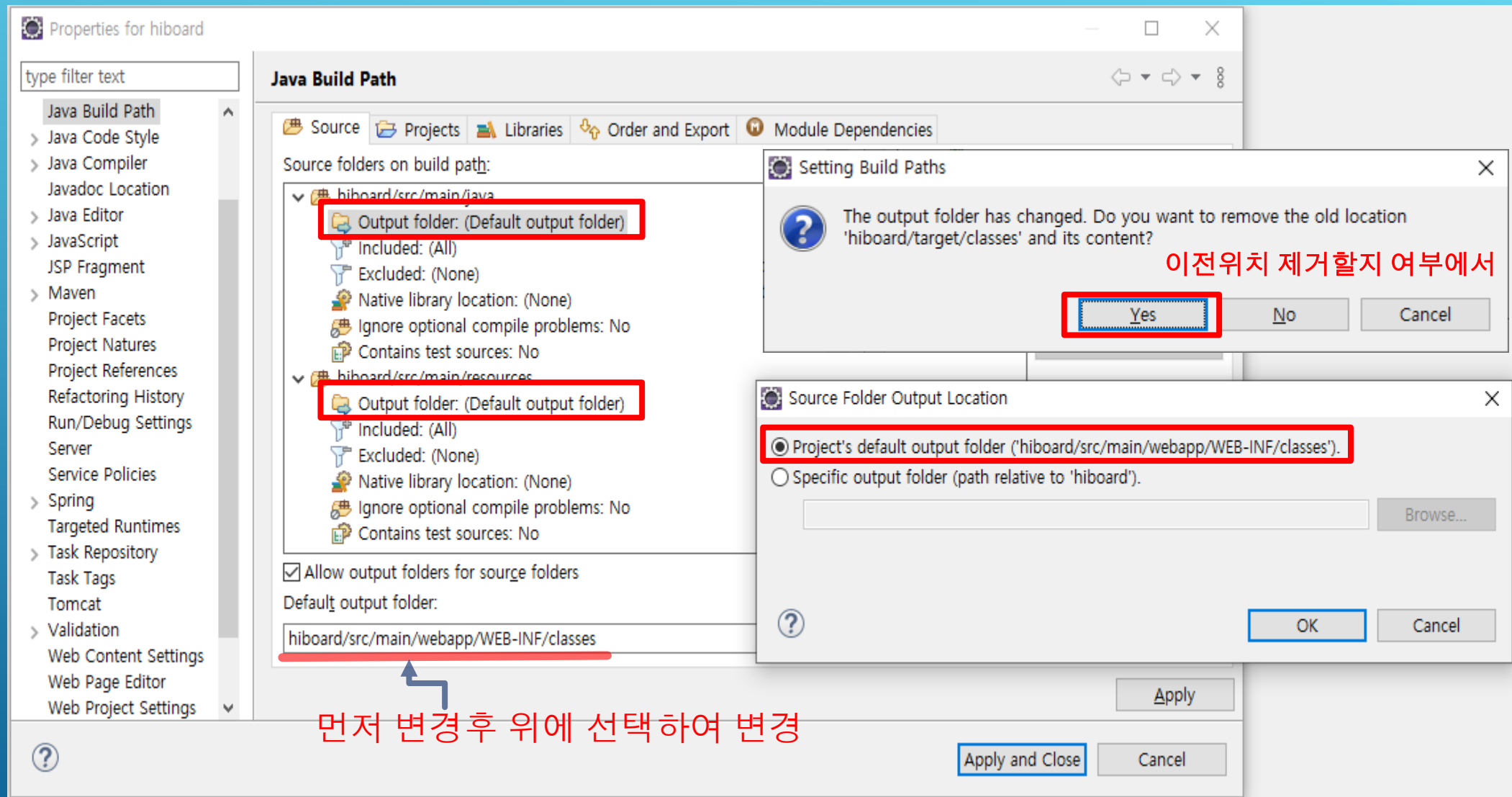


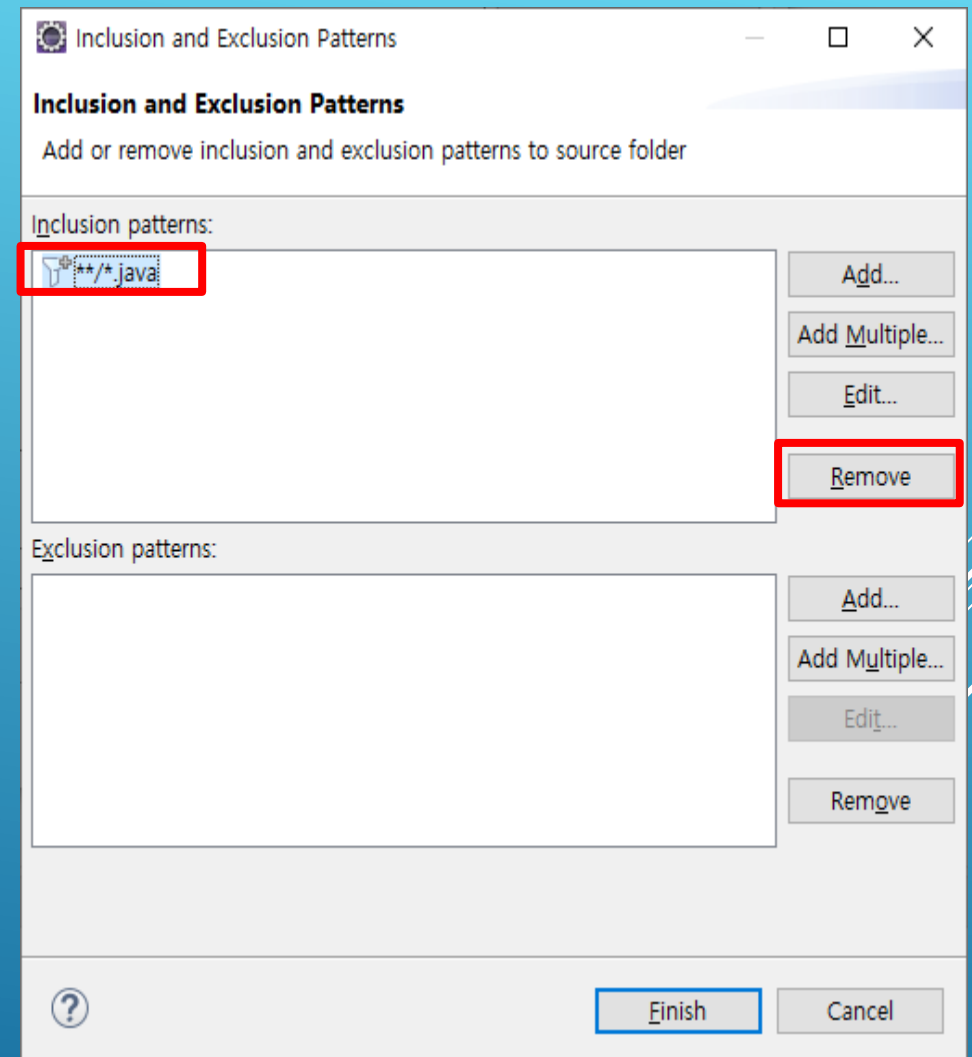
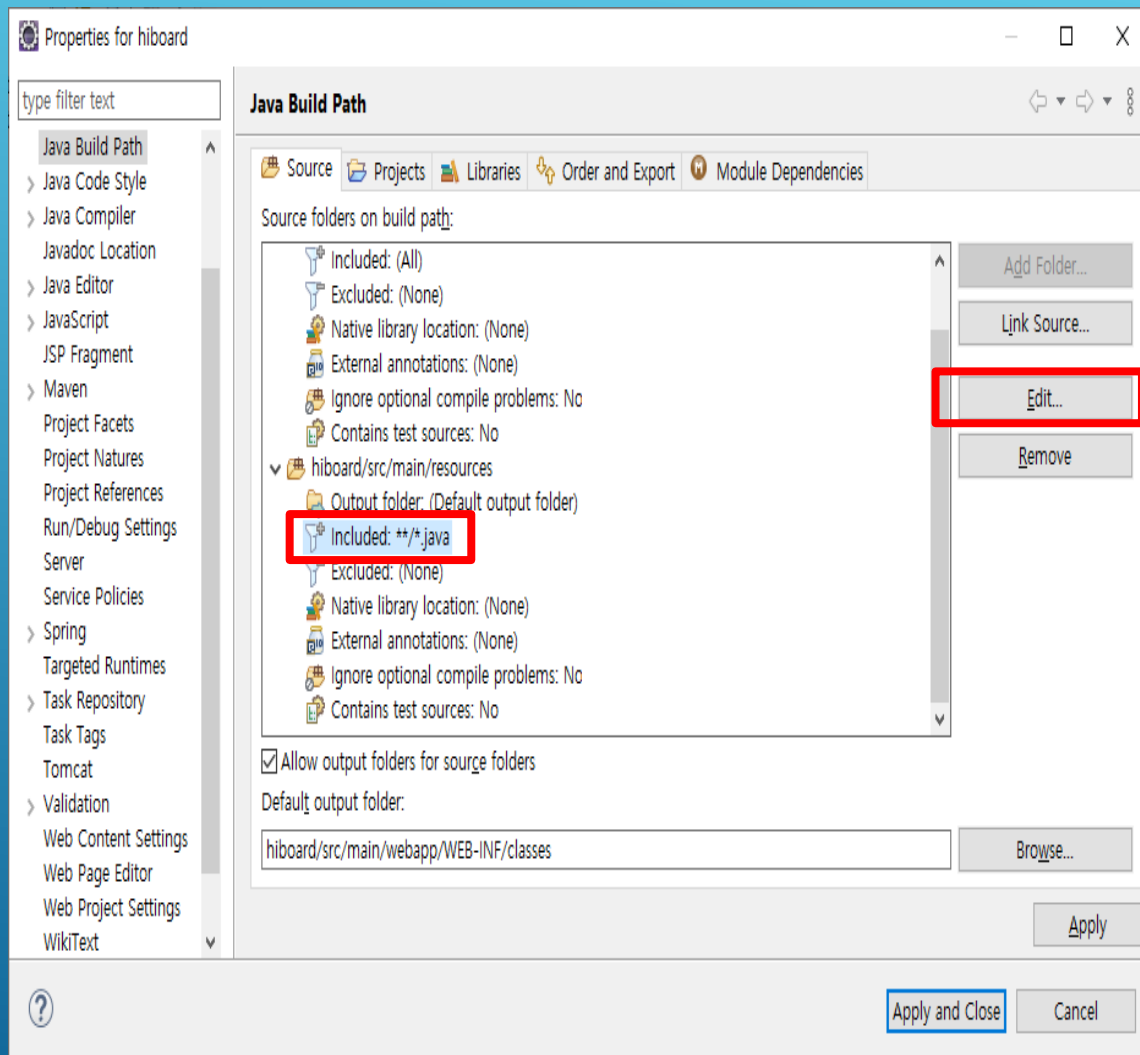
hiboard 프로젝트 선택후 오른쪽 마우스 Properties 선택 -> Java Build Path



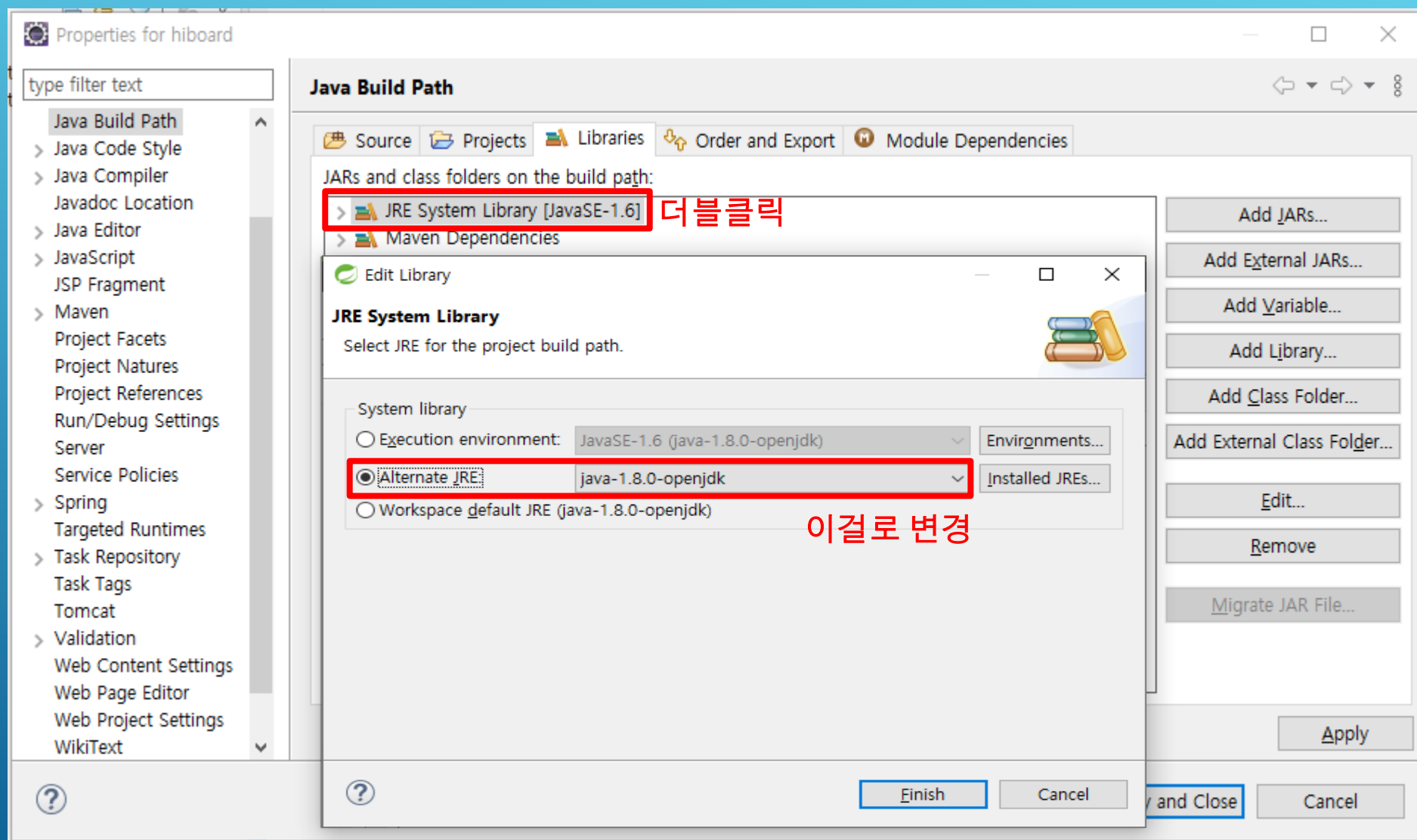
C:\project\webapps\hiboard\src\main\webapp\WEB-INF\classes

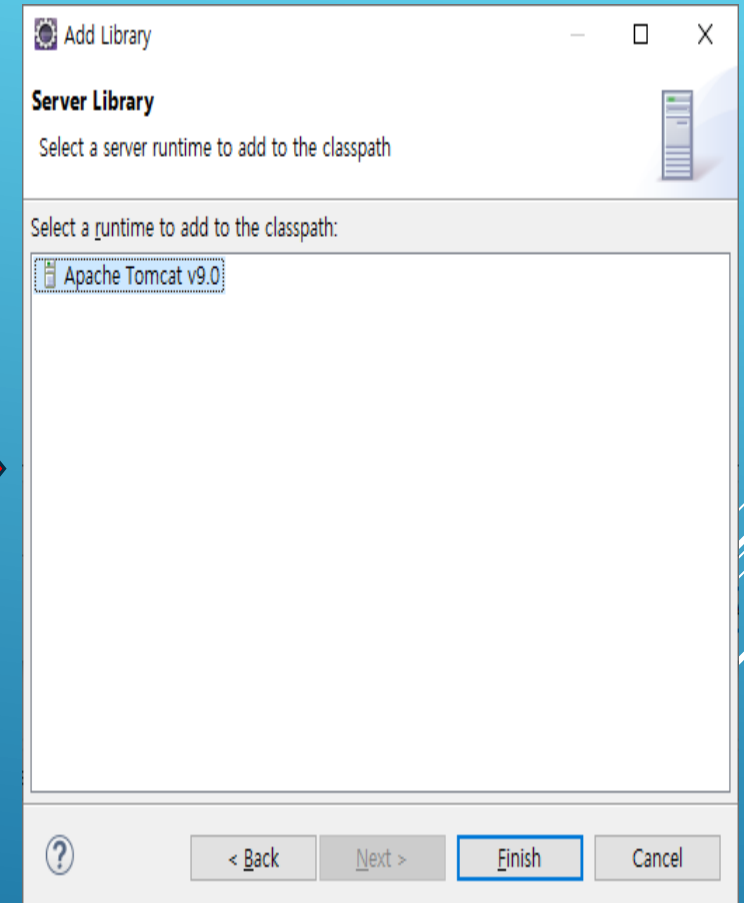
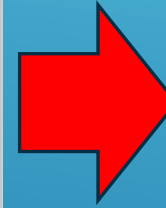
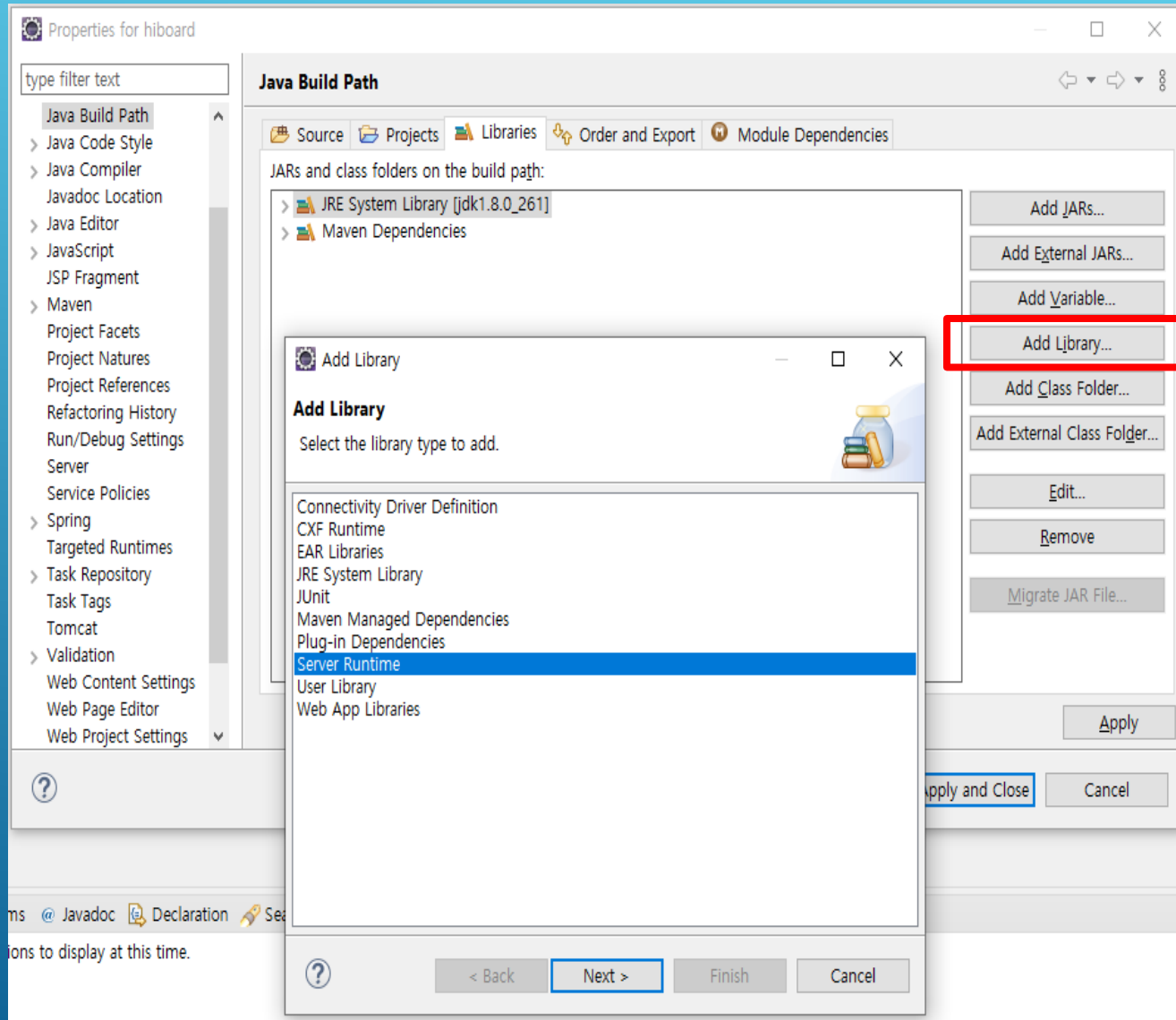




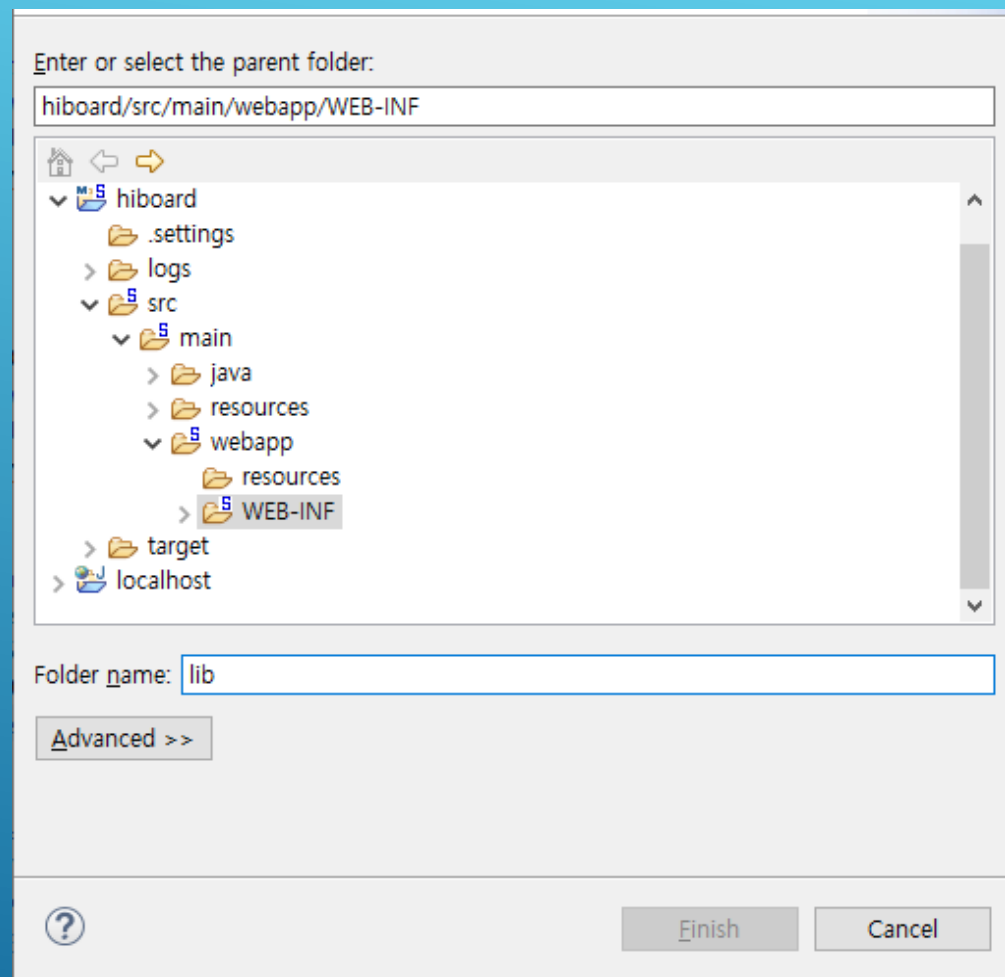
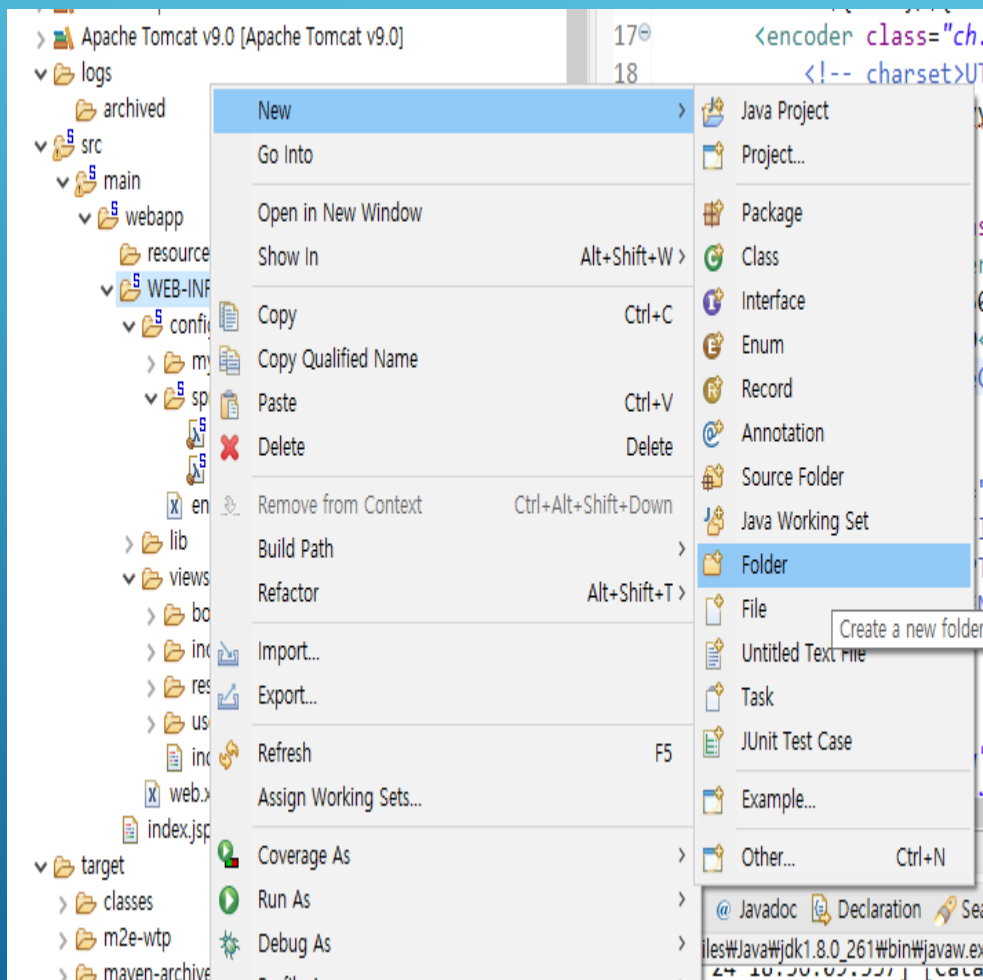


Properties -> Java Build Path -> Libraries

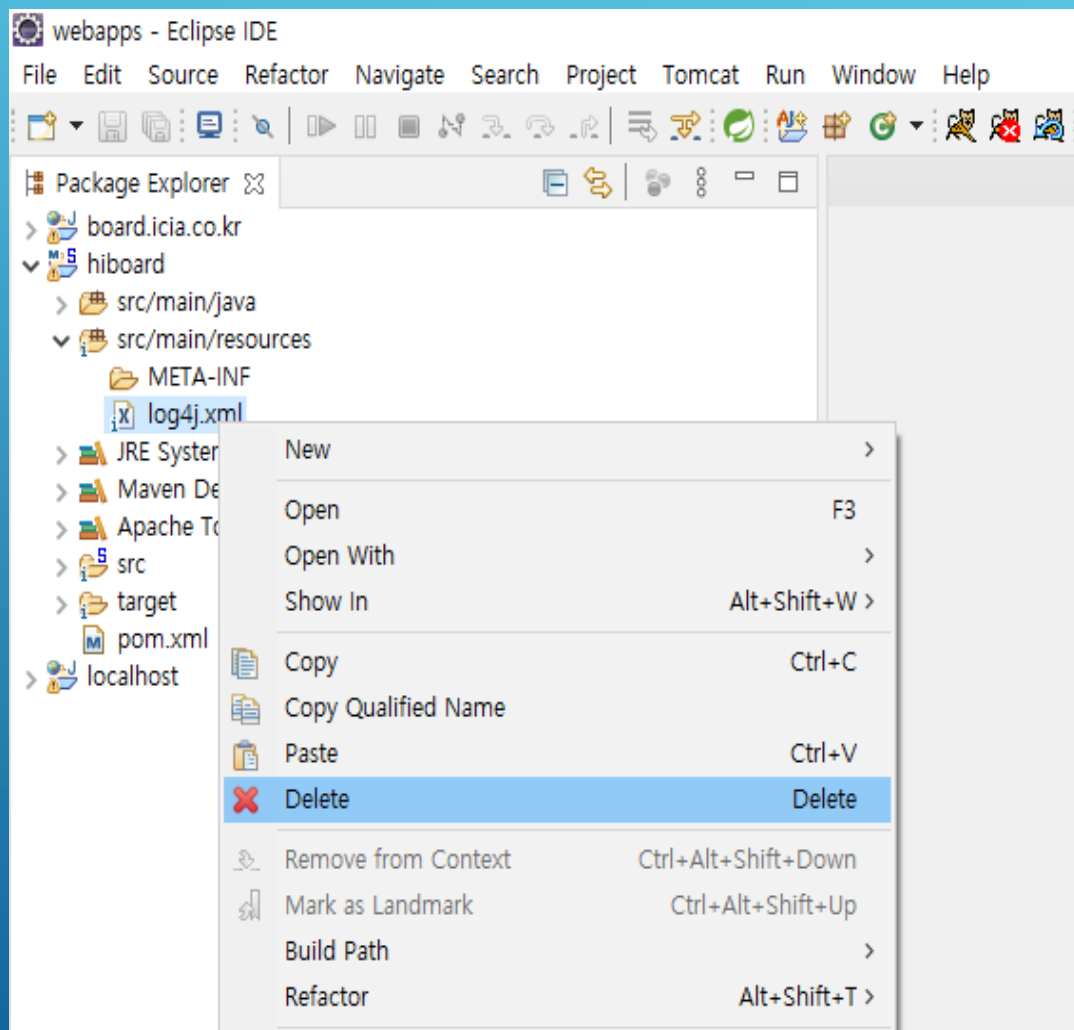




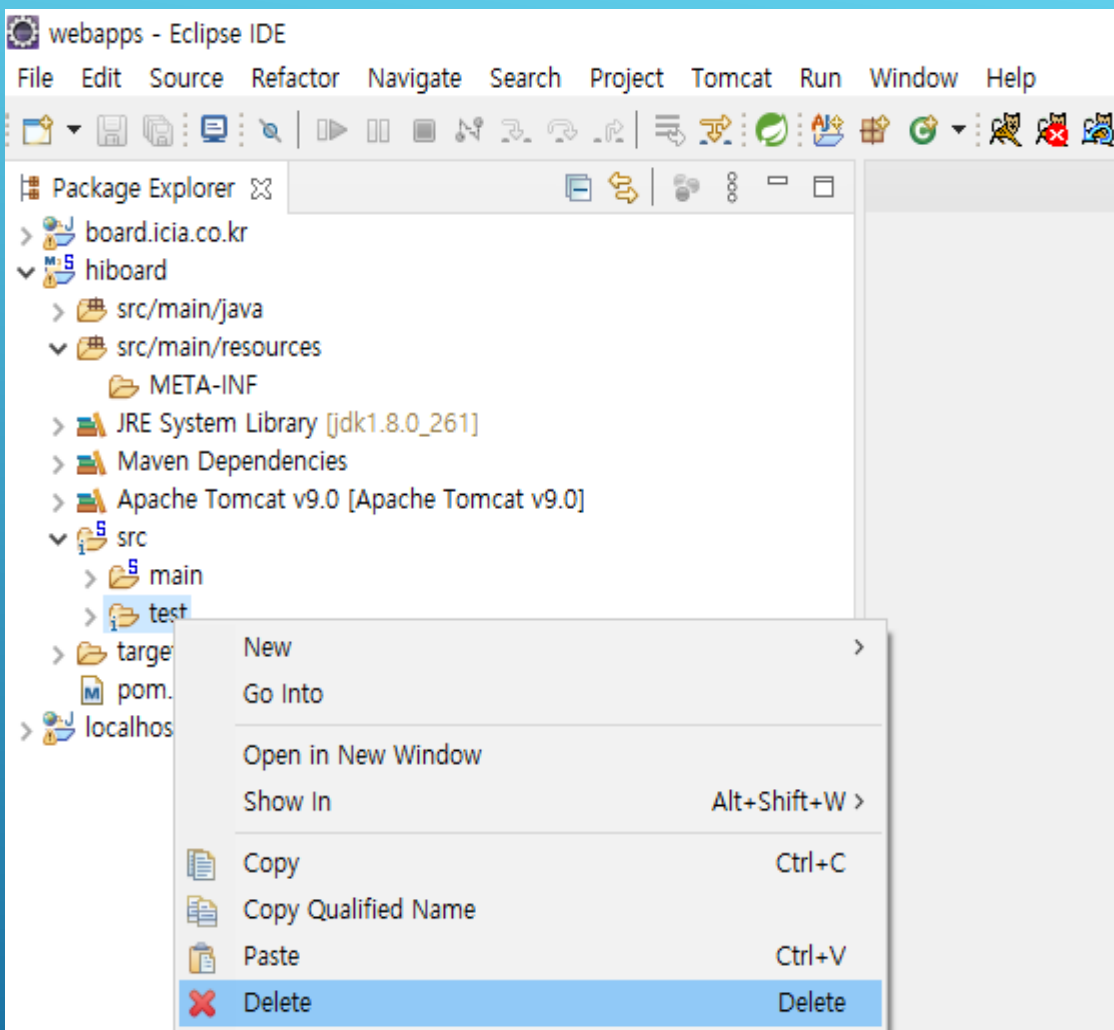
WEB-INF\lib 폴더가 없을 경우 생성



log4j.xml 삭제



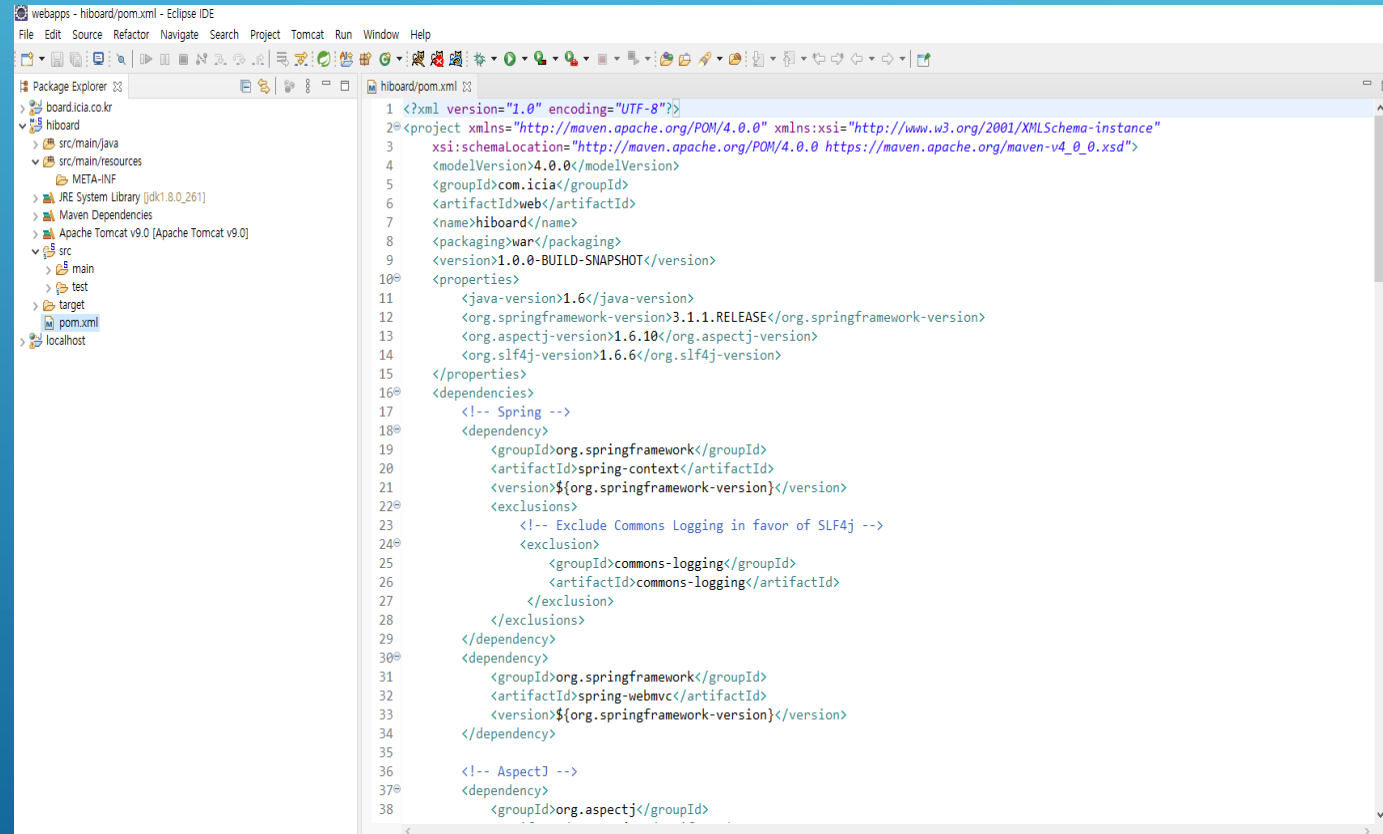
test 폴더 삭제



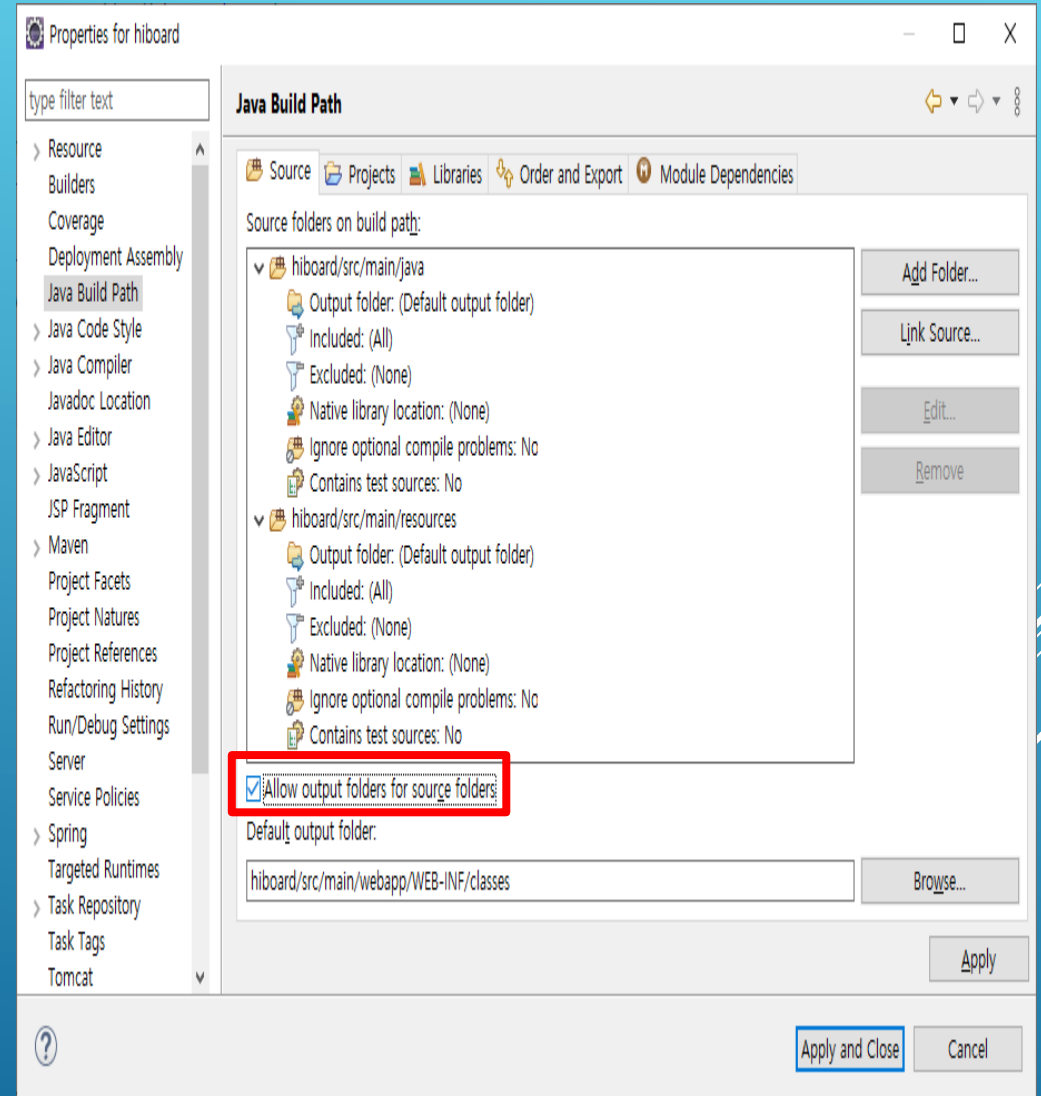
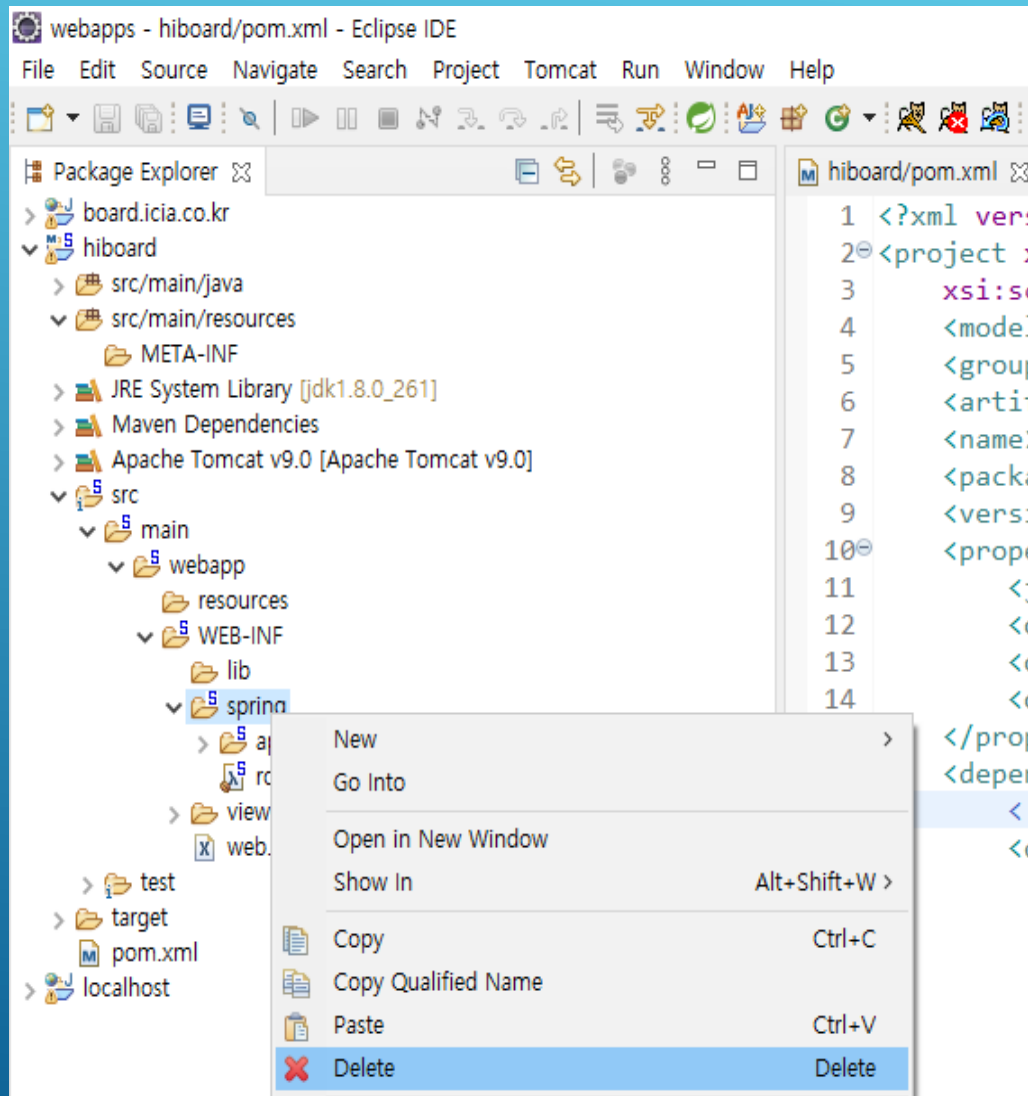
스프링 Logback (logger)용 default 폴더 생성
- hiboard/logs 생성, hiboard/logs/archived 생성

폴더 삭제 : C:/project/webapps/hiboard/src/test 삭제

pom.xml 전체 복사



```
1 <?xml version="1.0" encoding="UTF-8"?>
2 <project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
3   xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/maven-v4_0_0.xsd">
4   <modelVersion>4.0.0</modelVersion>
5   <groupId>com.icia</groupId>
6   <artifactId>web</artifactId>
7   <name>hiboard</name>
8   <packaging>war</packaging>
9   <version>1.0.0-BUILD-SNAPSHOT</version>
10  <properties>
11    <java-version>1.6</java-version>
12    <org.springframework-version>3.1.1.RELEASE</org.springframework-version>
13    <org.aspectj-version>1.6.10</org.aspectj-version>
14    <org.slf4j-version>1.6.6</org.slf4j-version>
15  </properties>
16  <dependencies>
17    <!-- Spring -->
18    <dependency>
19      <groupId>org.springframework</groupId>
20      <artifactId>spring-context</artifactId>
21      <version>${org.springframework-version}</version>
22      <exclusions>
23        <!-- Exclude Commons Logging in favor of SLF4j -->
24        <exclusion>
25          <groupId>commons-logging</groupId>
26          <artifactId>commons-logging</artifactId>
27        </exclusion>
28      </exclusions>
29    </dependency>
30    <dependency>
31      <groupId>org.springframework</groupId>
32      <artifactId>spring-webmvc</artifactId>
33      <version>${org.springframework-version}</version>
34    </dependency>
35
36    <!-- AspectJ -->
37    <dependency>
38      <groupId>org.aspectj</groupId>
```

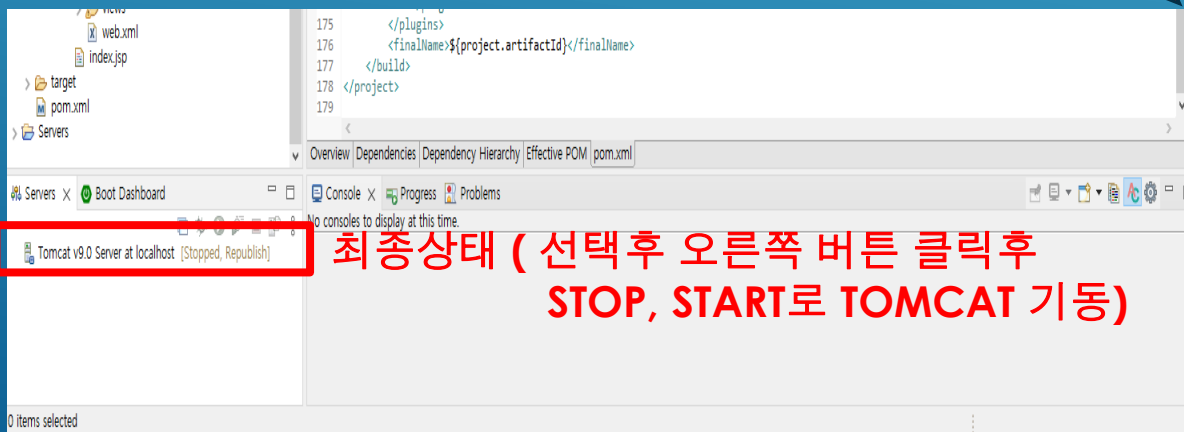
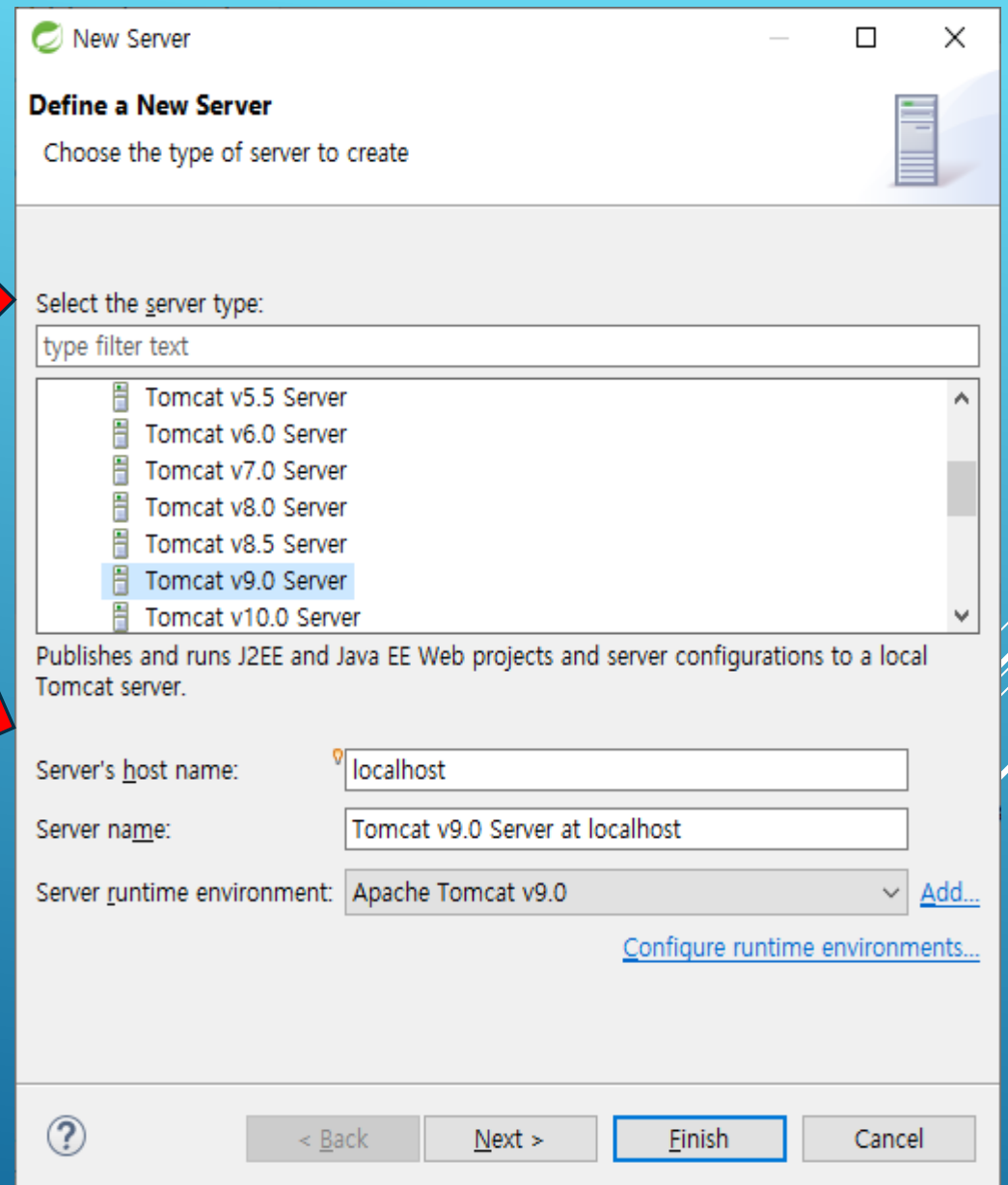
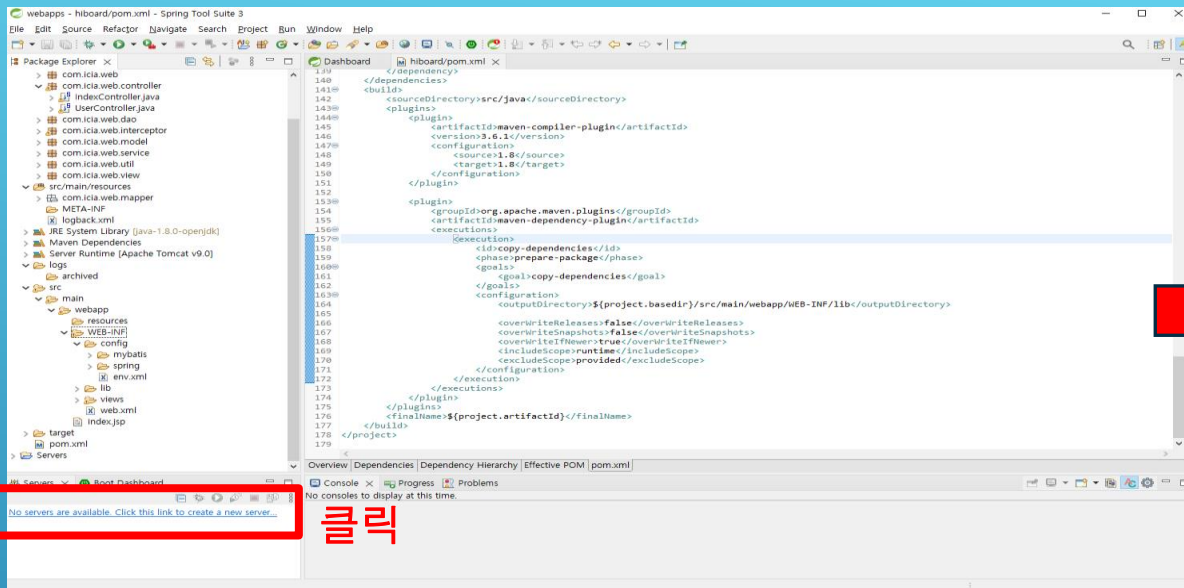


Java, resources, webapp 폴더(첫날수업용) 각각 복사후 Maven 설정 : hiboard/pom.xml

The screenshot shows an IDE interface with a project explorer on the left and a code editor on the right. The project explorer shows a directory structure: `src` (containing `main`, `java`, `resources`, `webapp`, and `WEB-INF`), and `target`. The `webapp` directory is selected, and a context menu is open. The menu includes options like 'New', 'Show In', 'Open', 'Open With', 'Copy', 'Copy Qualified Name', 'Paste', 'Delete', 'Remove from Context', 'Mark as Landmark', 'Build Path', 'Move...', 'Rename...', 'Import...', 'Export...', 'Refresh', 'New bean definition...', 'Coverage As', 'Run As', 'Debug As', 'Profile As', 'Maven', 'Team', 'Compare With', 'Replace With', 'Source', 'Validate', and 'Properties'. The 'Run As' option is selected, and a sub-menu is shown with options like '1 Run on Server', '2 Maven build', '3 Maven build...', '4 Maven clean', '5 Maven generate-sources', '6 Maven install', '7 Maven test', and 'Run Configurations...'. The '6 Maven install' option is highlighted. The background shows the 'pom.xml' file content, which includes Maven configuration for the 'maven-compiler-plugin' and 'maven-dependency-plugin'.

```
<sourceDirectory>src/java</sourceDirectory>
<plugins>
  <plugin>
    <artifactId>maven-compiler-plugin</artifactId>
    <version>3.6.1</version>
    <configuration>
      <source>1.8</source>
      <target>1.8</target>
    </configuration>
  </plugin>
  <plugin>
    <groupId>org.apache.maven.plugins</groupId>
    <artifactId>maven-dependency-plugin</artifactId>
    <executions>
      <execution>
        <id>copy-dependencies</id>
        <phase>prepare-package</phase>
        <goals>
          <goal>copy-dependencies</goal>
        </goals>
        <configuration>
          <outputDirectory>${project.basedir}/src/main/webapp/WEB-INF/lib</outputDirectory>
          <overWriteReleases>>false</overWriteReleases>
          <overWriteSnapshots>>false</overWriteSnapshots>
          <overWriteIfNewer>>true</overWriteIfNewer>
          <includeScope>runtime</includeScope>
          <excludeScope>provided</excludeScope>
        </configuration>
      </execution>
    </executions>
  </plugin>
</plugins>
```

Run time: 11.885 s



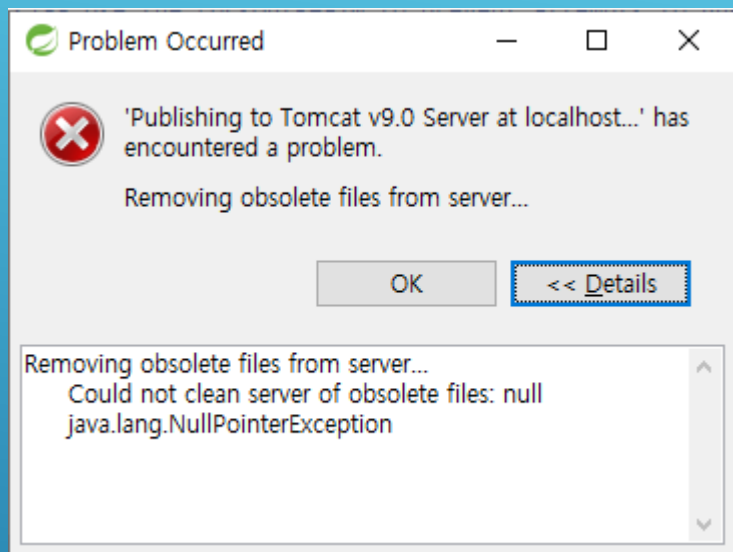
Tomcat 에 server.xml 아래 내용을 확인 및 추가 반영한후 tomcat Start 시킴.

오른쪽 추가 내용 : <Context crossContext="true" docBase="C:\project\webapps\hiboard\src\main\webapp" path="" reloadable="true">
</Context>

```
<!-- A "Connector" represents an endpoint by which requests are received
and responses are returned. Documentation at :
Java HTTP Connector: /docs/config/http.html
Java AJP Connector: /docs/config/ajp.html
APR (HTTP/AJP) Connector: /docs/apr.html
Define a non-SSL/TLS HTTP/1.1 Connector on port 8080
-->
<!--
Connector URIEncoding="UTF-8" connectionTimeout="20000" maxParameterCount="1000" port="8080" protocol="HTTP/1.1" redirectPort="8443"/>
-->
<!--
Connector executor="tomcatThreadPool"
port="8080" protocol="HTTP/1.1"
connectionTimeout="20000"
redirectPort="8443"
maxParameterCount="1000"
/>
-->
-->
<!-- Define an SSL/TLS HTTP/1.1 Connector on port 8443
This connector uses the NIO implementation. The default
SSLImplementation will depend on the presence of the APR/native
library and the useOpenSSL attribute of the AprLifecycleListener.
Either JSSE or OpenSSL style configuration may be used regardless of
the SSLImplementation selected. JSSE style configuration is used below.
-->
-->
```

```
<!-- For clustering, please take a look at documentation at:
/docs/cluster-howto.html (simple how to)
/docs/config/cluster.html (reference documentation) -->
<!--
<Cluster className="org.apache.catalina.ha.tcp.SimpleTcpCluster"/>
-->
<!-- Use the LockOutRealm to prevent attempts to guess user passwords
via a brute-force attack -->
<Realm className="org.apache.catalina.realm.LockOutRealm">
<!-- This Realm uses the UserDatabase configured in the global JNDI
resources under the key "UserDatabase". Any edits
that are performed against this UserDatabase are immediately
available for use by the Realm. -->
<Realm className="org.apache.catalina.realm.UserDatabaseRealm" resourceName="UserDatabase"/>
</Realm>
-->
<Host appBase="" autoDeploy="true" name="localhost" unpackWARs="true">
150
151
152 <Context crossContext="true" docBase="C:\project\webapps\hiboard\src\main\webapp" path="" reloadable="true">
153 </Context>
154
155 <Valve className="org.apache.catalina.valves.AccessLogValve" directory="logs" pattern="%h %l %u %t &quot;%r&quot; %s %b" prefix="localhost_access_log" suffix=".txt"/>
156
157 </Host>
158
159 <!-- Host name="test.sist.co.kr" appBase="" unpackWARs="true" autoDeploy="true">
160
161 <Valve className="org.apache.catalina.valves.AccessLogValve" directory="logs"
162 prefix="test.sist.co.kr_access_log" suffix=".txt"
163 pattern="%h %l %u %t &quot;%r&quot; %s %b" />
164
165 </Host>
166
167 <Host name="hiboard.sist.co.kr" appBase="" unpackWARs="true" autoDeploy="true">
168
169 <Valve className="org.apache.catalina.valves.AccessLogValve" directory="logs"
170 prefix="test.sist.co.kr_access_log" suffix=".txt"
171 pattern="%h %l %u %t &quot;%r&quot; %s %b" />
172
173 </Host -->
```

Tomcat Start시 아래 오류 발생시



<https://docu94.tistory.com/40> 참고하여 아래 폴더 삭제함.

Removing obsolete files from server... Could not clean server of obsolete files: Content is not allowed in prolog. Content is not allowed in prolog.

프로젝트 import 받고 톰캣을 돌릴때 위와 같은 에러가 발생한다면

1. 이클립스 종료

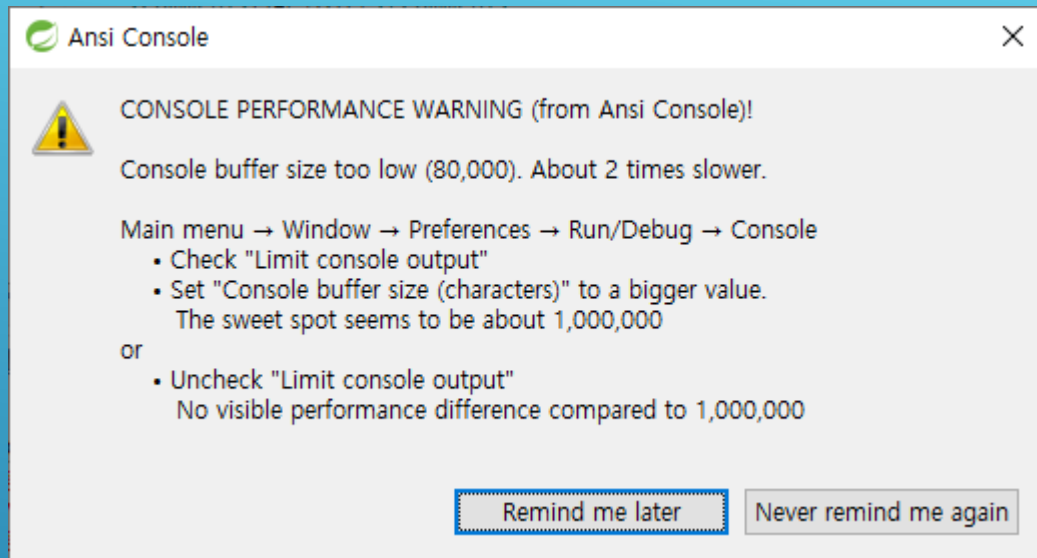
2. 해당 프로젝트 workspace폴더 안에 있는 .metadata/.plugins/org.eclipse.wst.server.core 폴더로 들어가서 tmp0, tmp1... 같은 폴더가 있는지 확인한다.

3. 저런 폴더가 있으면 삭제 후, 다시 이클립스 실행

서버를 돌려보면 실행이 되는 것을 확인할 수 있다.

도움이 되셨다면 공감과 광고한번씩 눌러주세요 감사합니다!!

Tomcat Start 시 아래 창 오류 발생시



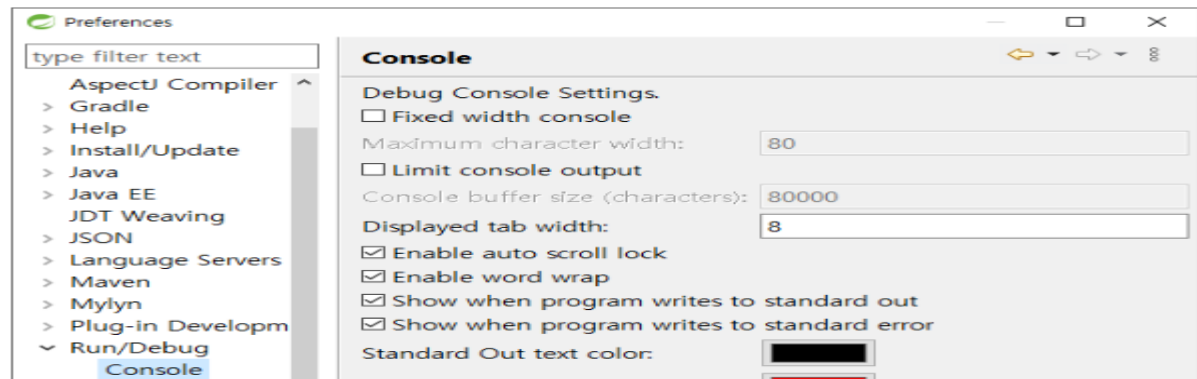
<https://life-with-coding.tistory.com/493> 참고하여 적용

2. 해결 방법

아래와 같이 경고 알림창에 안내되어 있는 방법으로 해결해보았습니다.

⚡ 방법1. Limit Console Output 체크 해제

콘솔에 출력되는 콘솔 라인의 제한을 해제합니다.



⚡ 방법2. Console 출력 라인수 증가

적당한 수치로 콘솔 버퍼 사이즈를 증가시킵니다. (예 : 1,000,000 이상~)

Console buffer size (characters : 1,000,000)

