

〈5주차 실습〉

웹 프로그래밍

Web Programming

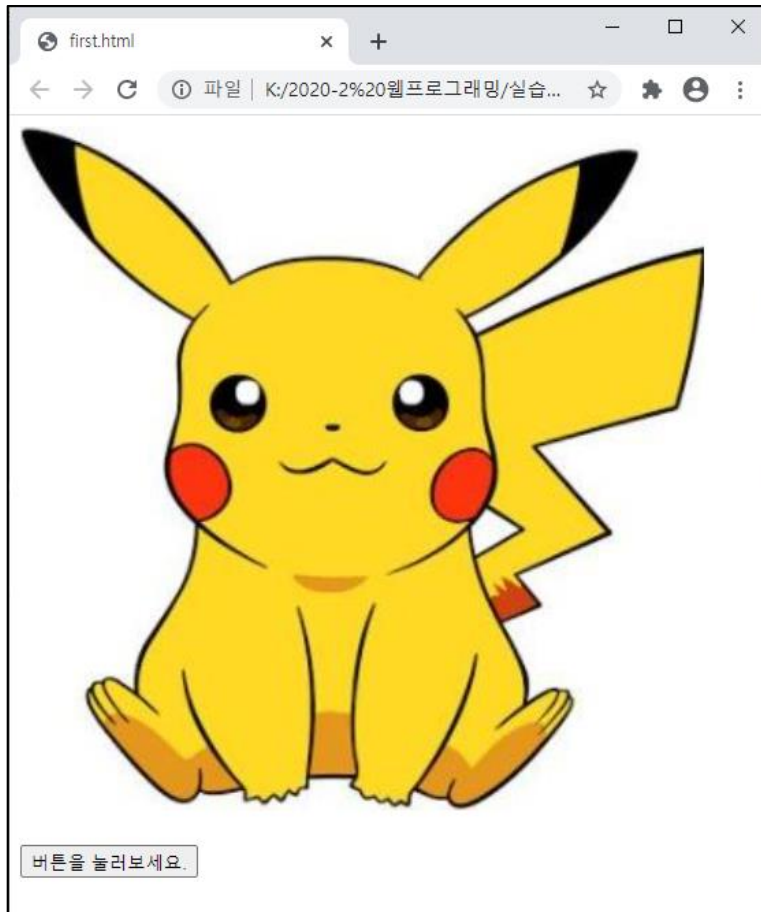
1) "first.html" 파일 생성

<first.html>

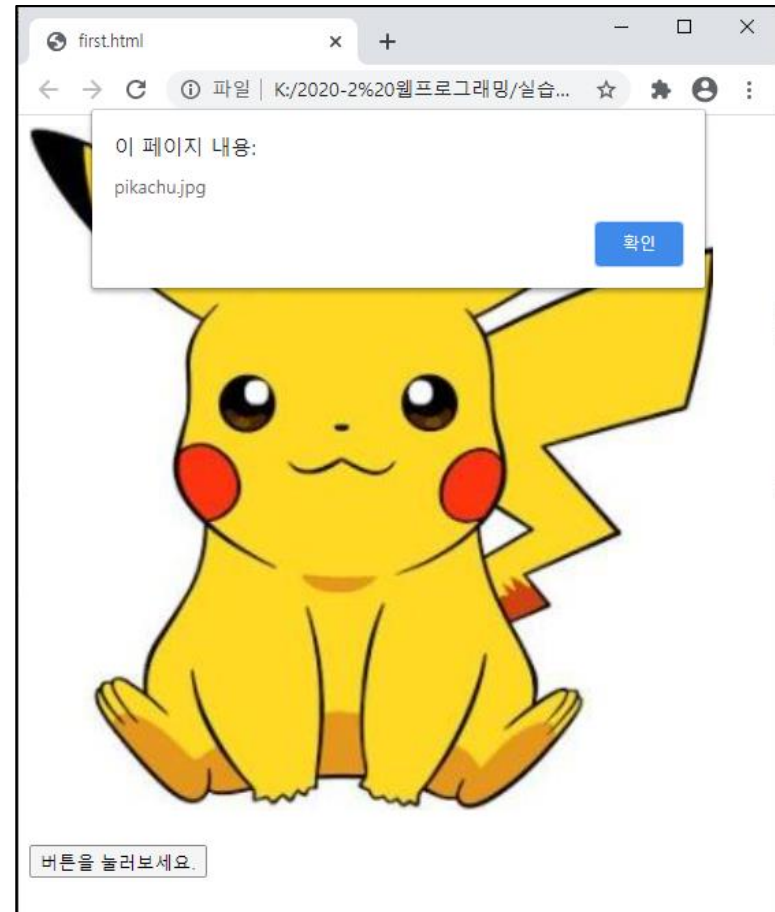
```
<!DOCTYPE html>
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=utf-8">
<script src="https://code.jquery.com/jquery-3.3.1.js"> </script>
<script>
    $(document).ready(function() {
        //일반적인 구조(구현)
        //DOM이 로딩되어서 준비가 되면 작업을 시작
        //이후 구체적으로 jQuery 메소드들을 호출
        $("#button").click(function(){ //button 태그에 클릭 이벤트가 발생하면,
            alert($("#pic").attr("src")); //id가 "pic"인 요소의 src속성값을 얻어 alert창 작동
        });
    });
</script>
</head>
<body>
     <br> <br>
    <button>버튼을 눌러보세요.</button>
</body>
</html>
```

2) 실행 결과

<실행 화면>



<버튼 클릭 후 화면>



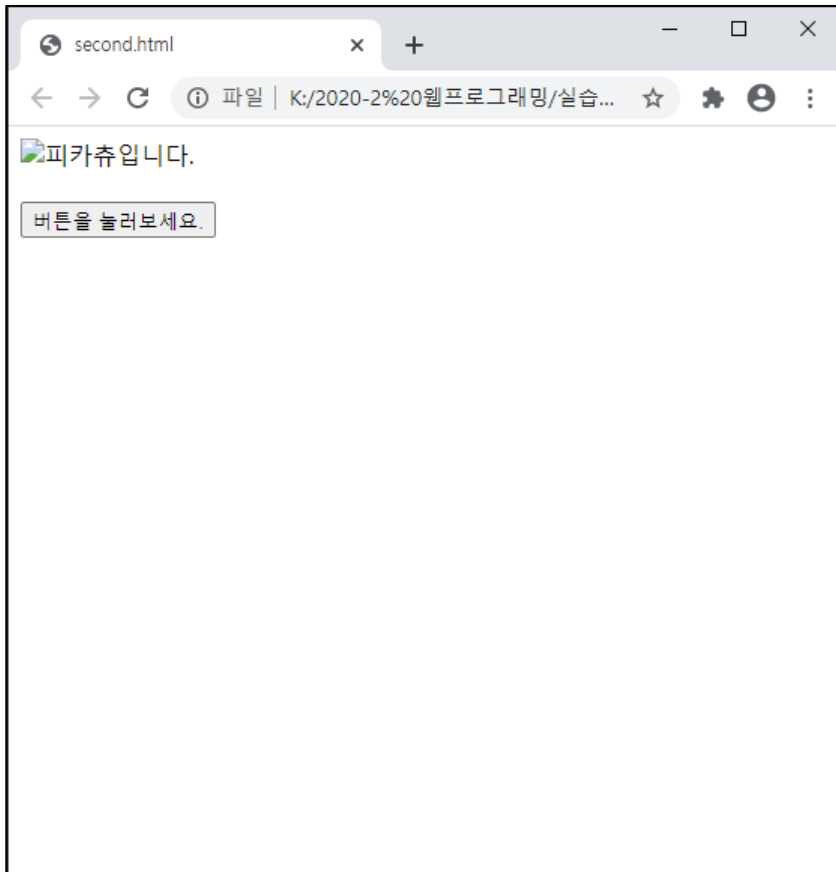
1) "second.html" 파일 생성

<second.html>

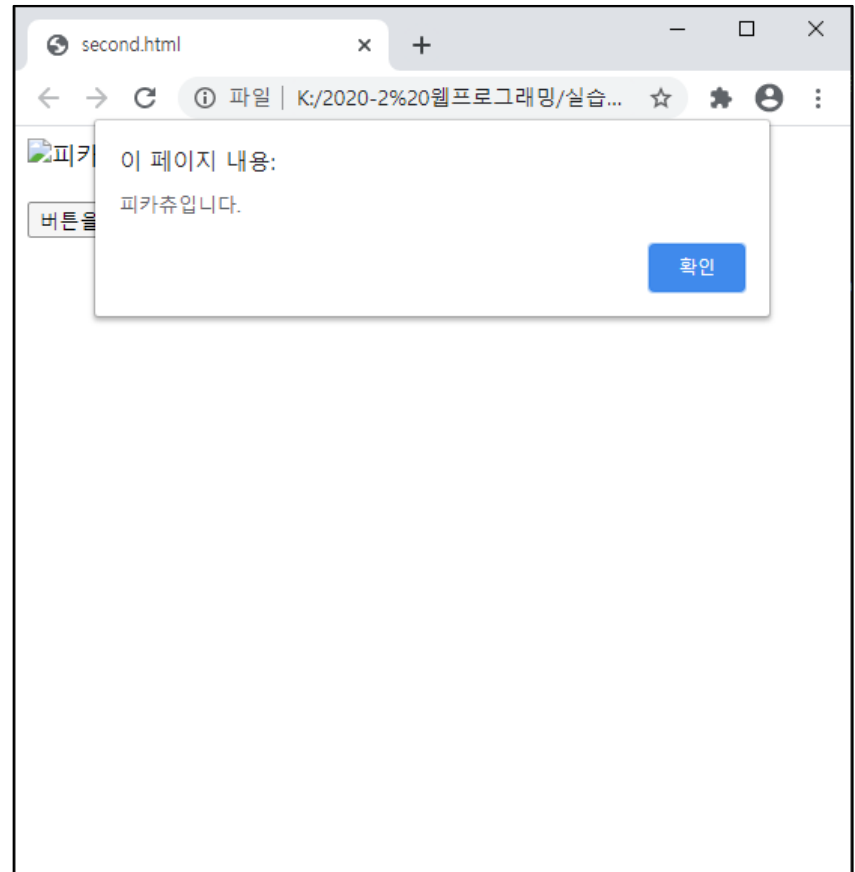
```
<!DOCTYPE html>
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=utf-8">
<script src="https://code.jquery.com/jquery-3.3.1.js"></script>
<script>
    $(document).ready(function() {
        //일반적인 구조(구현)
        //DOM이 로딩되어서 준비가 되면 작업을 시작
        //이후 구체적으로 jQuery 메소드들을 호출
        $("button").click(function(){ //button 태그에 클릭 이벤트가 발생하면,
            alert($("#pic").attr("alt")); //id가 "pic"인 요소의 alt속성값을 얻어 alert창 작동
        });
    });
</script>
</head>
<body>
    <br><br>
    <button>버튼을 눌러보세요.</button>
</body>
</html>
```

2) 실행 결과

<실행 화면>



<버튼 클릭 후 화면>



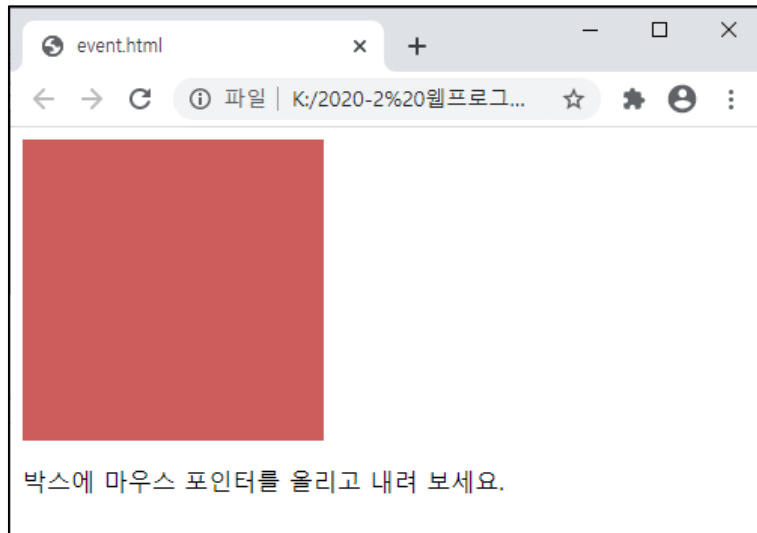
1) "event.html" 파일 생성

<event.html>

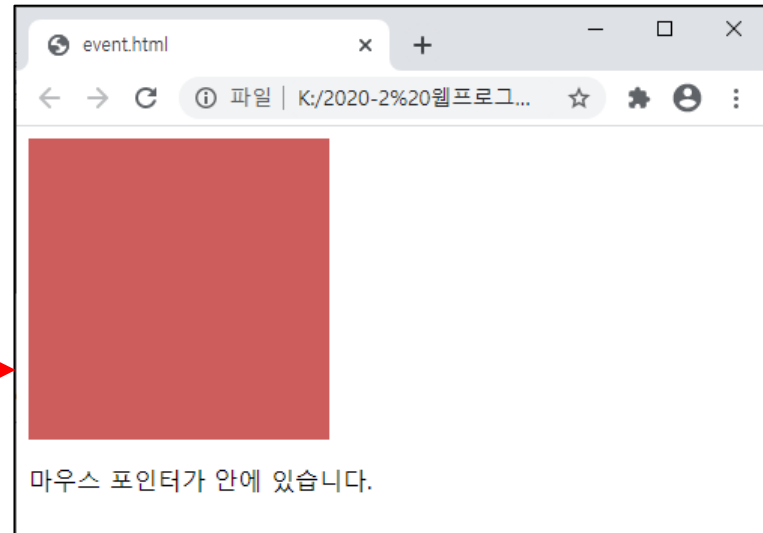
```
<!DOCTYPE html>
<html>
<head>
<script type="text/javascript" src="https://code.jquery.com/jquery-3.2.0.min.js" ></script>
<script>
$(function(){
    $(".box").mouseenter(function(){ //마우스 포인터를 대상에 올릴 때 발생하는 이벤트
        $(".word").text("마우스 포인터가 안에 있습니다.");
    });
    $(".box").mouseleave(function(){ //마우스 포인터가 대상을 떠날 때 발생하는 이벤트
        $(".word").text("마우스 포인터가 밖에 있습니다.");
    });
});
</script>
</head>
<body>
<div class="box" style="width:200px; height:200px; background:indianred"></div>
<p class="word">박스에 마우스 포인터를 올리고 내려 보세요.</p>
</body>
</html>
```

2) 실행 결과

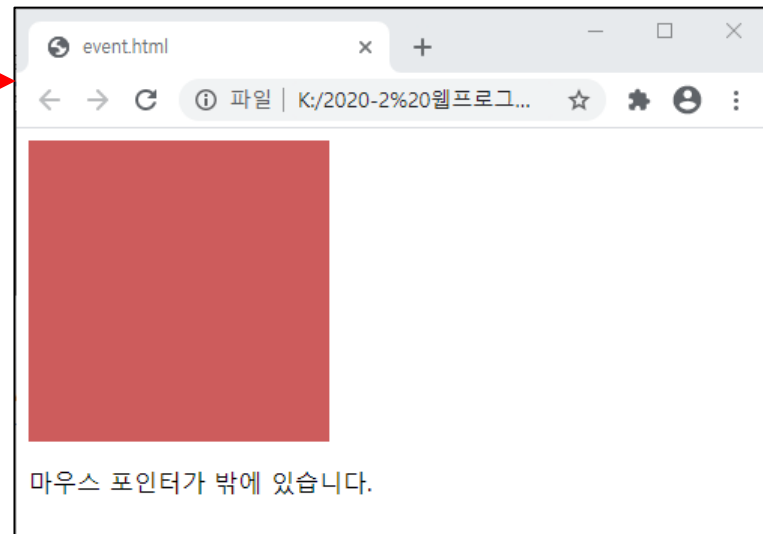
<실행 화면>



<마우스 포인터가 박스 안에 있을 때>



<마우스 포인터가 박스 밖에 있을 때>



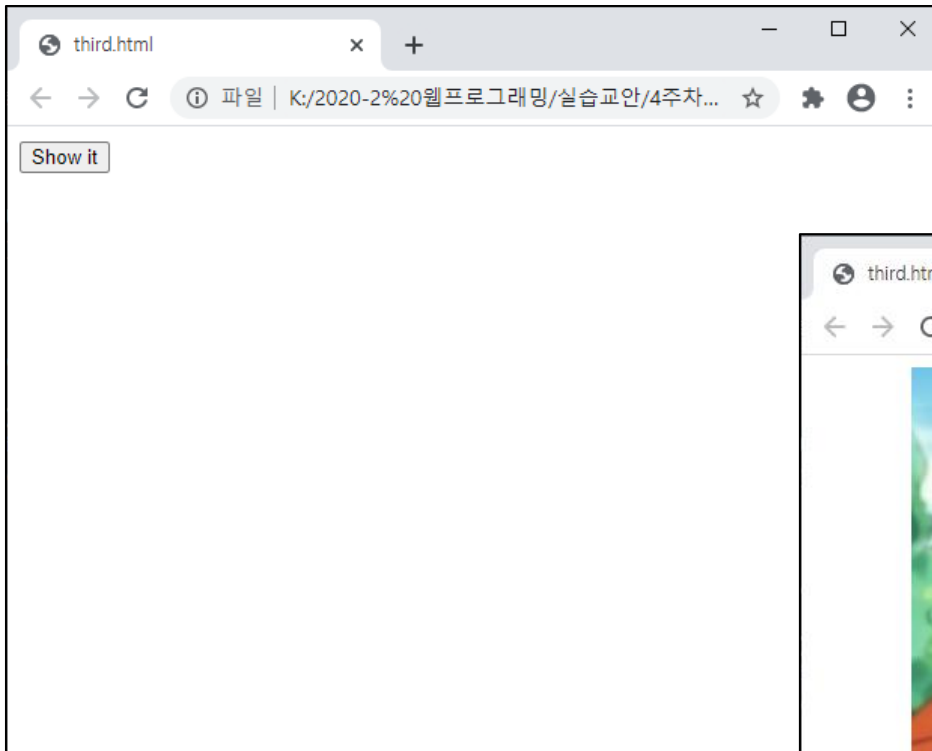
1) "third.html" 파일 생성

<third.html>

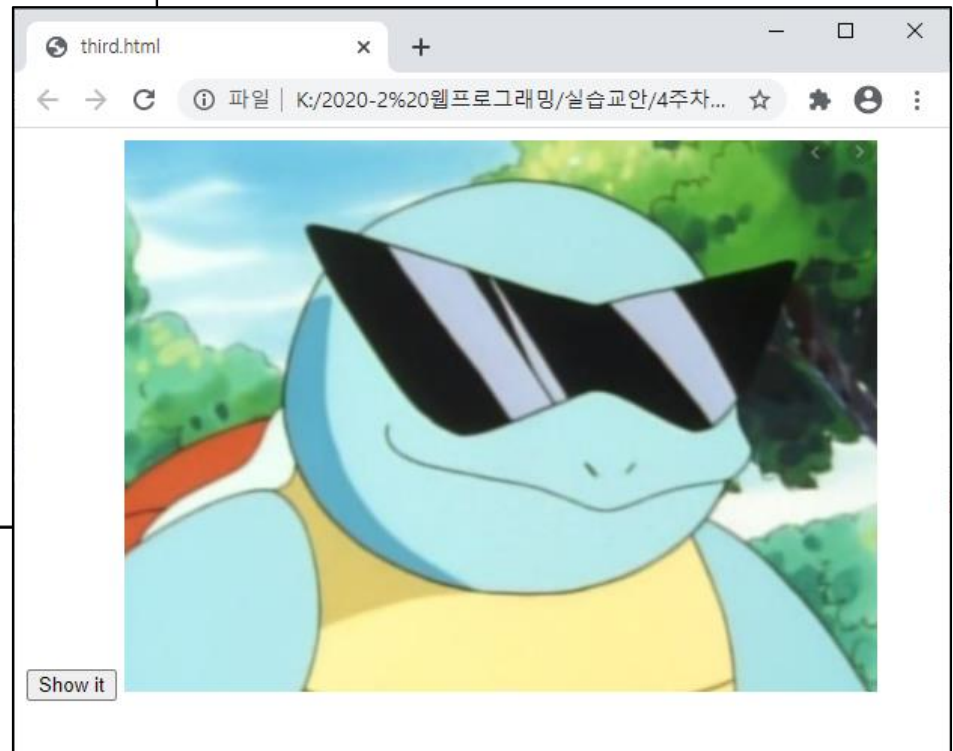
```
<!DOCTYPE html>
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=utf-8">
<script src="https://code.jquery.com/jquery-3.3.1.js"> </script>
</head>
<body>
  <button>Show it</button>
  
  <script>
    $(document).ready(function(){
      $("button").click(function(){
        $("#new").show("slow"); //id가 "new"인 요소에 show메소드 적용
      });
    });
  </script>
</body>
</html>
```


2) 실행 결과

<실행 화면>



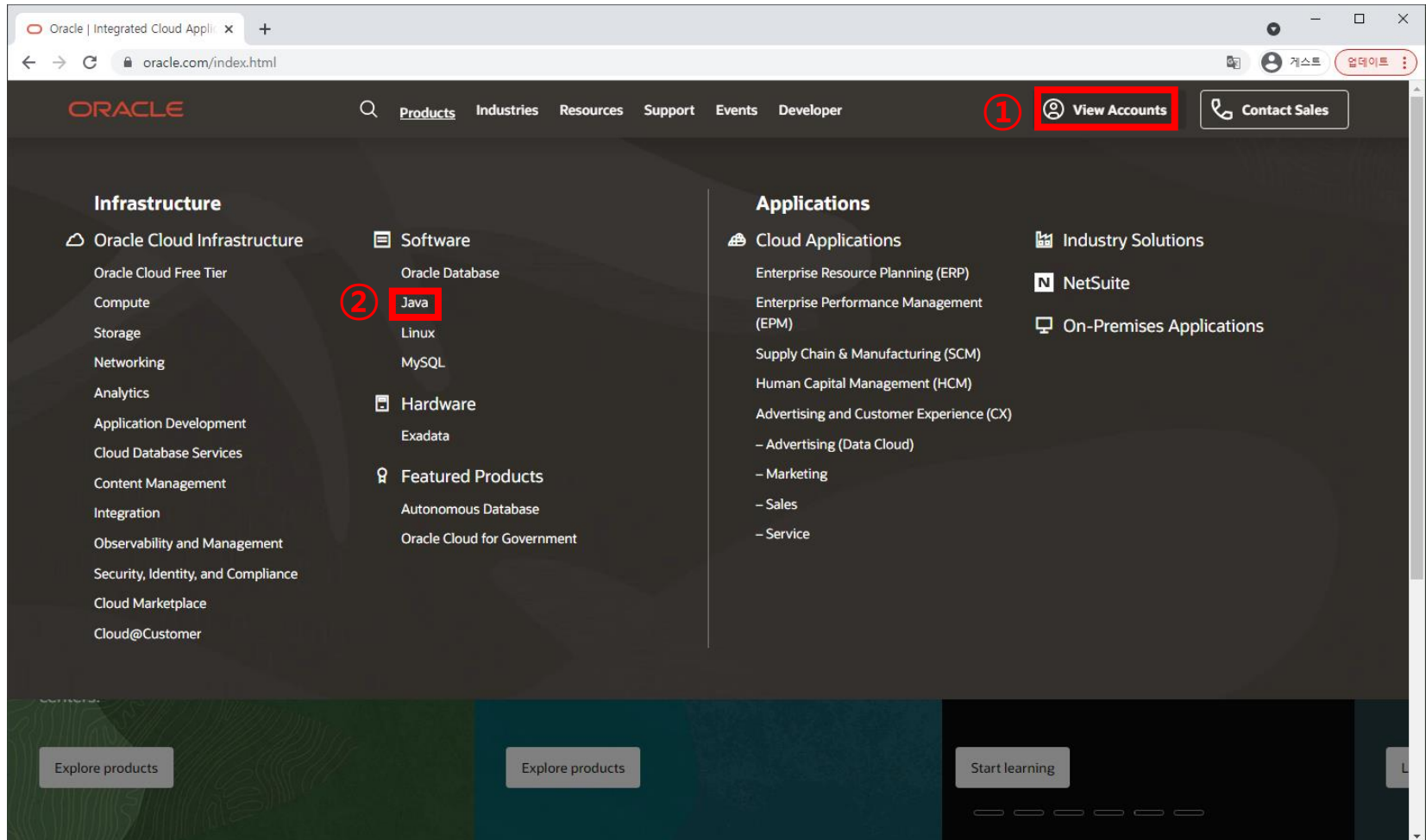
<버튼 클릭 후 화면>



Java 설치 및 환경 설정 (1/11)

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- 1) "http://www.oracle.com/index.html" 사이트에 접속
- 2) 오른쪽 상단의 "View Accounts" → "Oracle Account" 에서 회원가입 후 로그인
- 3) "Products" → "Software" → "Java" 클릭



4) 오른쪽 상단의 “Download Java” 클릭

The screenshot shows the Oracle Java website. The browser address bar displays 'oracle.com/java/'. The navigation bar includes links for Products, Industries, Resources, Support, Events, and Developer. On the right side of the navigation bar, there are buttons for 'View Accounts' and 'Contact Sales'. The main content area features the 'Oracle Java' logo and a description of Java as the #1 programming language and development platform. To the right of the text, there is an illustration of three people interacting with glowing spheres. A red rectangular box highlights the 'Download Java' button located in the top right corner of the main content area. Below the main content area, there are three columns of information: 'Announcing Java 17', 'Java Management Service', and 'Java for IT security and compliance goals'. Each column has a corresponding 'Read the news', 'Learn more', or 'Get the report and video' button.

Java Software | Oracle

oracle.com/java/

ORACLE

Products Industries Resources Support Events Developer

View Accounts Contact Sales

Download Java

Oracle Java

Java is the #1 programming language and development platform. It reduces costs, shortens development timeframes, drives innovation, and improves application services. With millions of developers running more than 51 billion Java Virtual Machines worldwide, Java continues to be the development platform of choice for enterprises and developers.

Announcing Java 17

The next long-term support release of Java 17 is now available. Oracle continues to innovate on the Java platform at a regular six-month cadence, keeping Java vibrant and relevant for enterprises and developers throughout the world.

Read the news

Java Management Service

Discover, monitor, and manage your Java environment with this powerful new Oracle Cloud service.

Learn more

Java for IT security and compliance goals

451 Research expert insights on regulatory compliance in IT projects and how Oracle Java helps enterprises strengthen security and stability.

Get the report and video

5) "Java 8" → "자신에게 맞는 OS 선택" → "x64 installer" 다운로드 후 설치 진행
(설치 위치를 반드시 기억할 것)

Java Downloads | Oracle

oracle.com/java/technologies/downloads/#java8-windows

Java SE subscribers have more choices

Also available for development, personal use, and to run other licensed Oracle products.

Java 16 Java 11 **Java 8** ①

Java SE Development Kit 8u301

Java SE subscribers will receive JDK 8 updates until at least December of 2030.

The Oracle JDK 8 license changed in April 2019

The [Oracle Technology Network License Agreement for Oracle Java SE](#) is substantially different from prior Oracle JDK 8 licenses. This license permits certain uses, such as personal use and development use, at no cost -- but other uses authorized under prior Oracle JDK licenses may no longer be available. Please review the terms carefully before downloading and using this product. FAQs are available [here](#).

Commercial license and support are available for a low cost with [Java SE Subscription](#).

JDK 8 software is licensed under the [Oracle Technology Network License Agreement for Oracle Java SE](#).

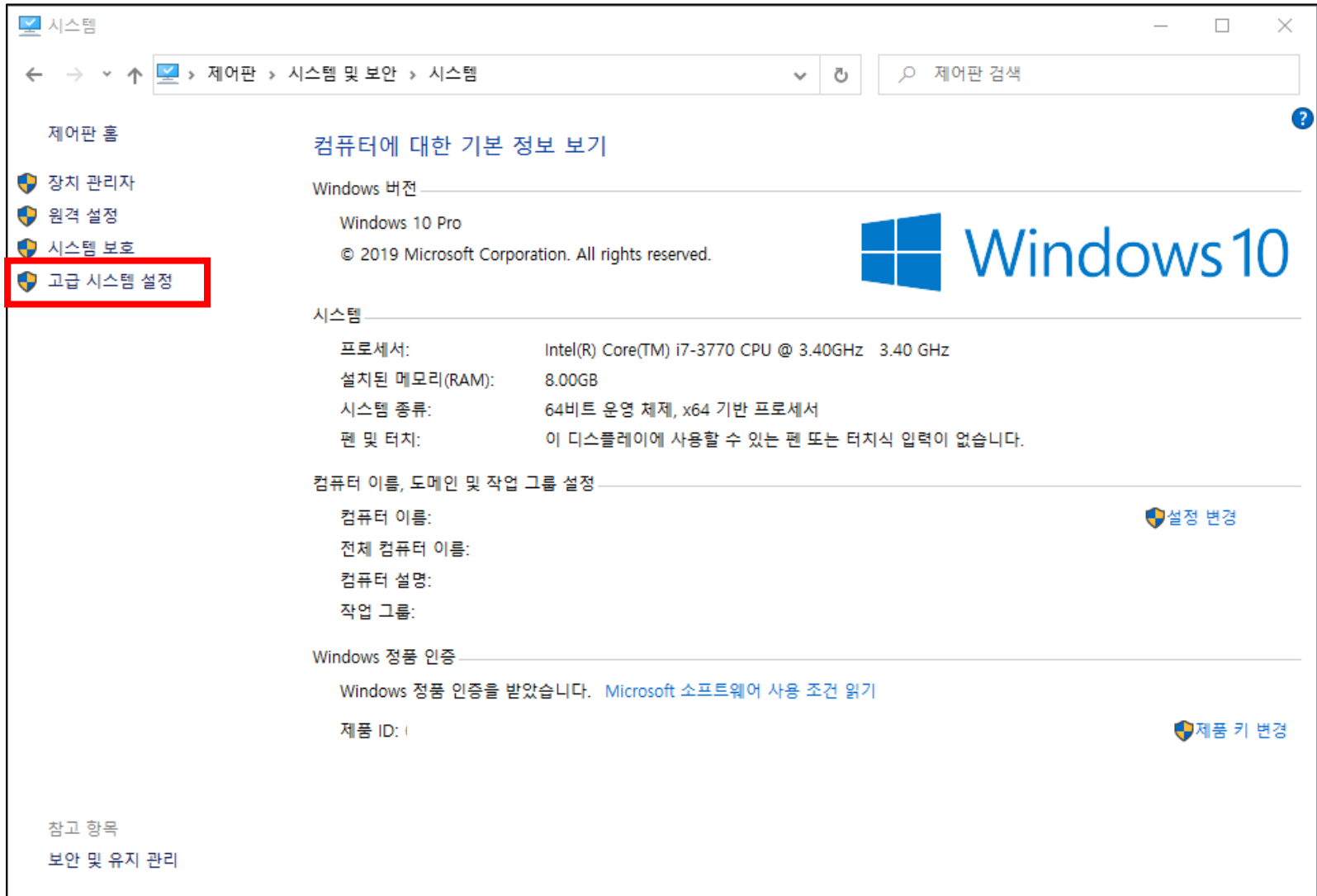
JDK 8u301 [checksum](#)

Documentation Download

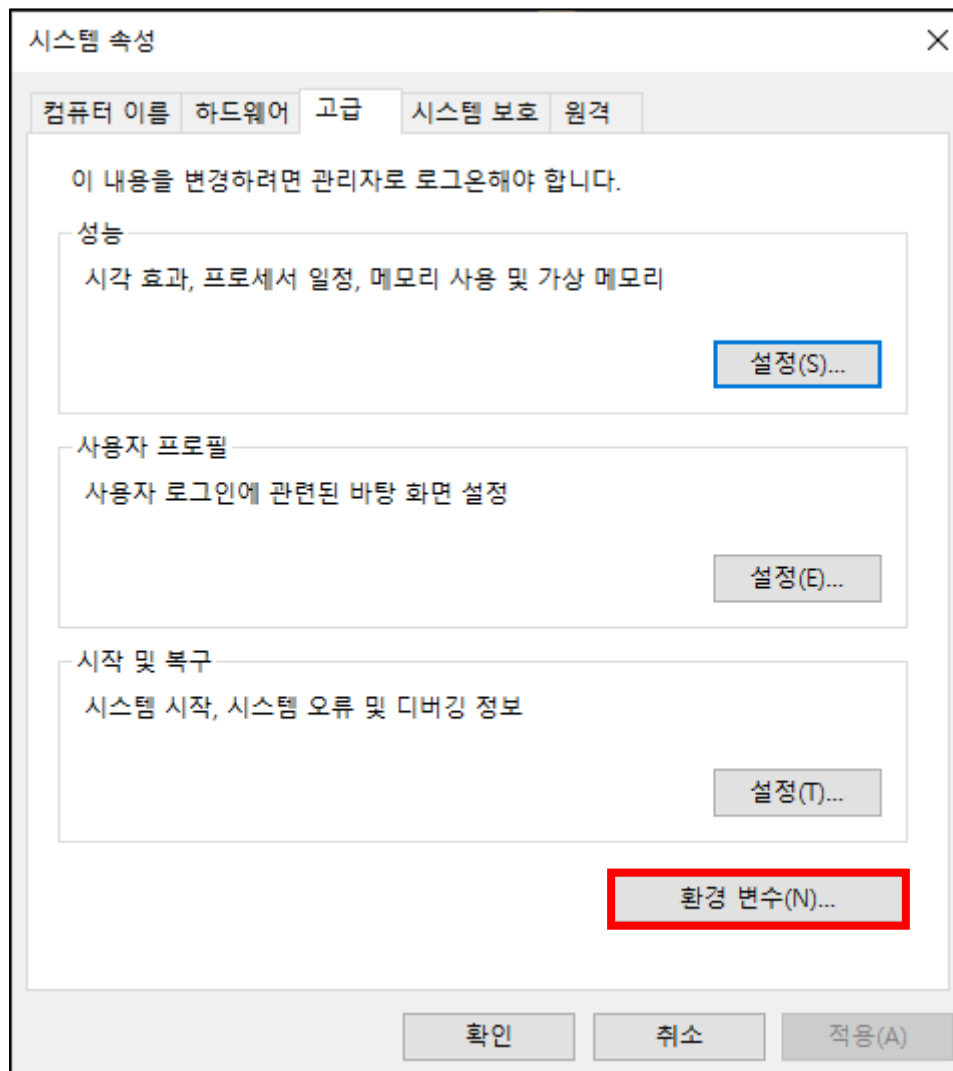
Linux macOS Solaris **Windows** ②

Product/file description	File size	Download
x86 Installer	156.45 MB	jdk-8u301-windows-i586.exe
x64 Installer	169.46 MB	jdk-8u301-windows-x64.exe ③

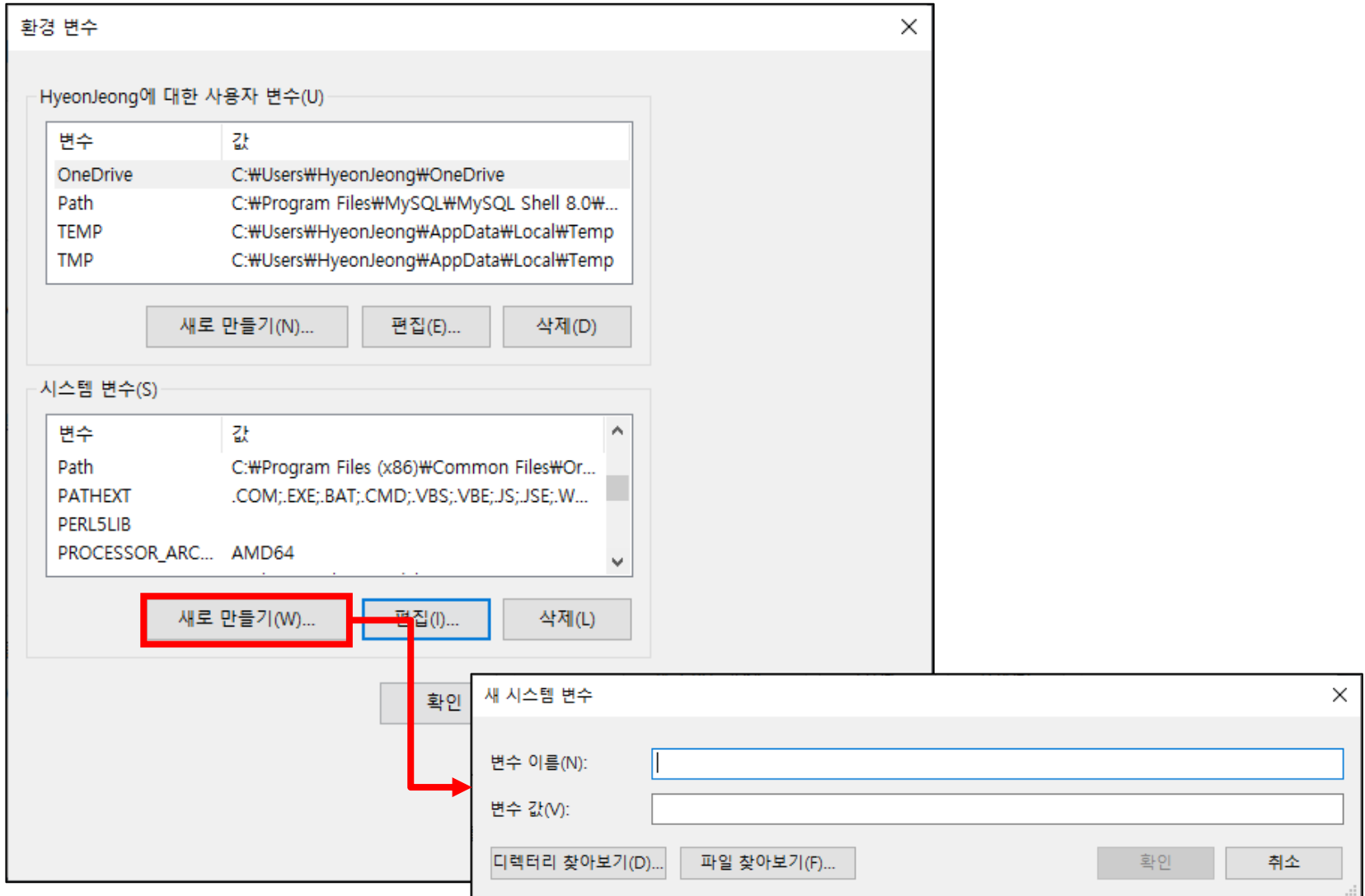
6) 제어판 → 시스템 및 보안 → 시스템 → “고급 시스템 설정” 클릭



7) "환경 변수" 클릭



8) "시스템 변수" 에서 "새로 만들기" 클릭

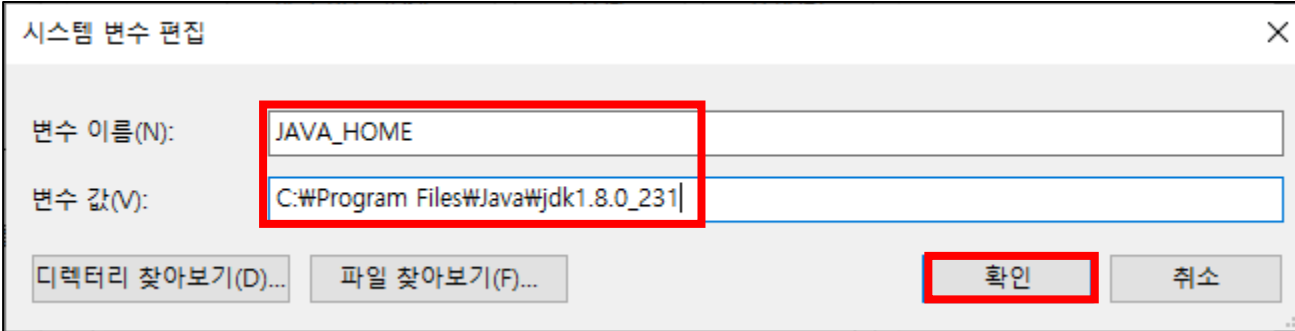


9) 아래와 같이 각각 두 개의 시스템 변수를 추가하기

① 변수 이름 : JAVA_HOME, 변수 값 : 자바 설치 위치 → 입력 후 “확인” 클릭

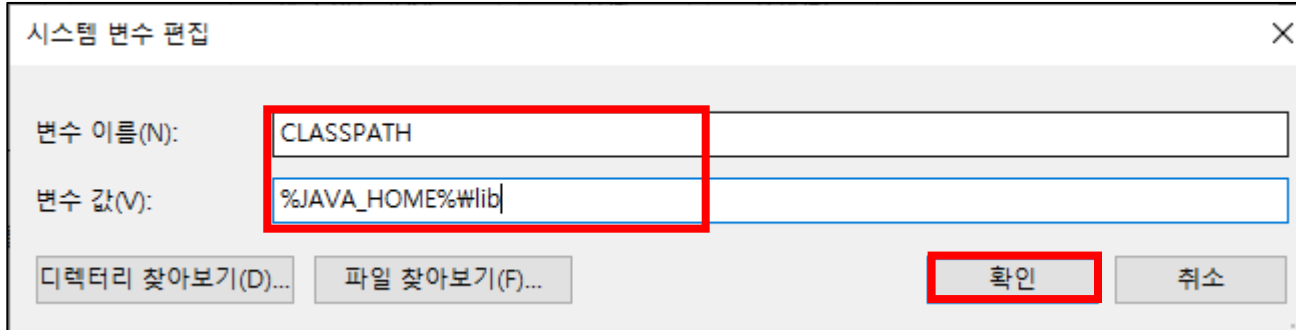
② 변수 이름 : CLASSPATH, 변수 값 : %JAVA_HOME%\lib → 입력 후 “확인” 클릭

①



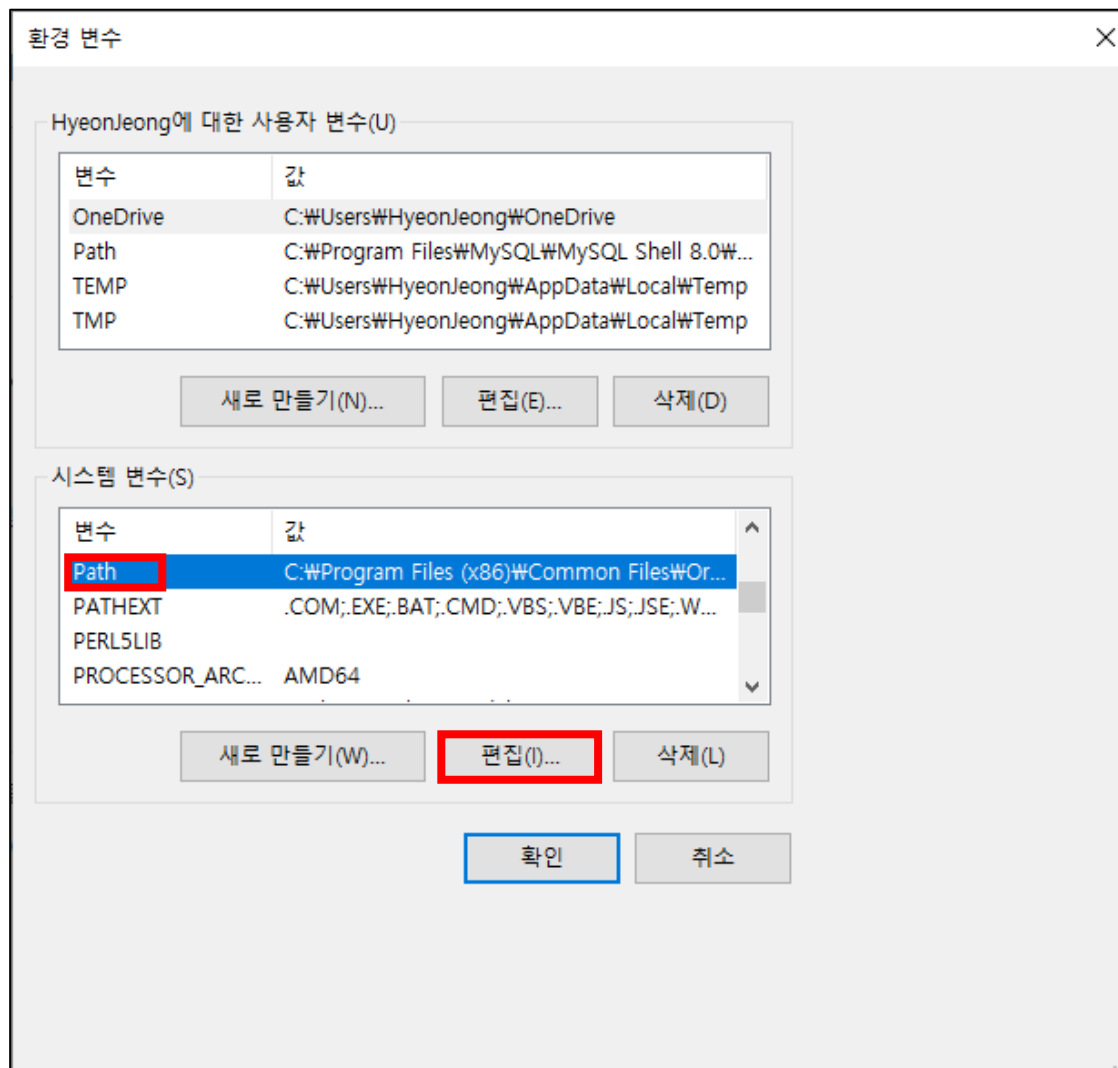
The screenshot shows the '시스템 변수 편집' (Edit System Variables) dialog box. The '변수 이름(N):' (Variable name) field contains 'JAVA_HOME' and the '변수 값(V):' (Variable value) field contains 'C:\Program Files\Java\jdk1.8.0_231'. Both fields are highlighted with a red rectangle. At the bottom right, the '확인' (OK) button is also highlighted with a red rectangle. Other buttons include '디렉터리 찾아보기(D)...' (Browse for directory...), '파일 찾아보기(F)...' (Browse for file...), and '취소' (Cancel).

②



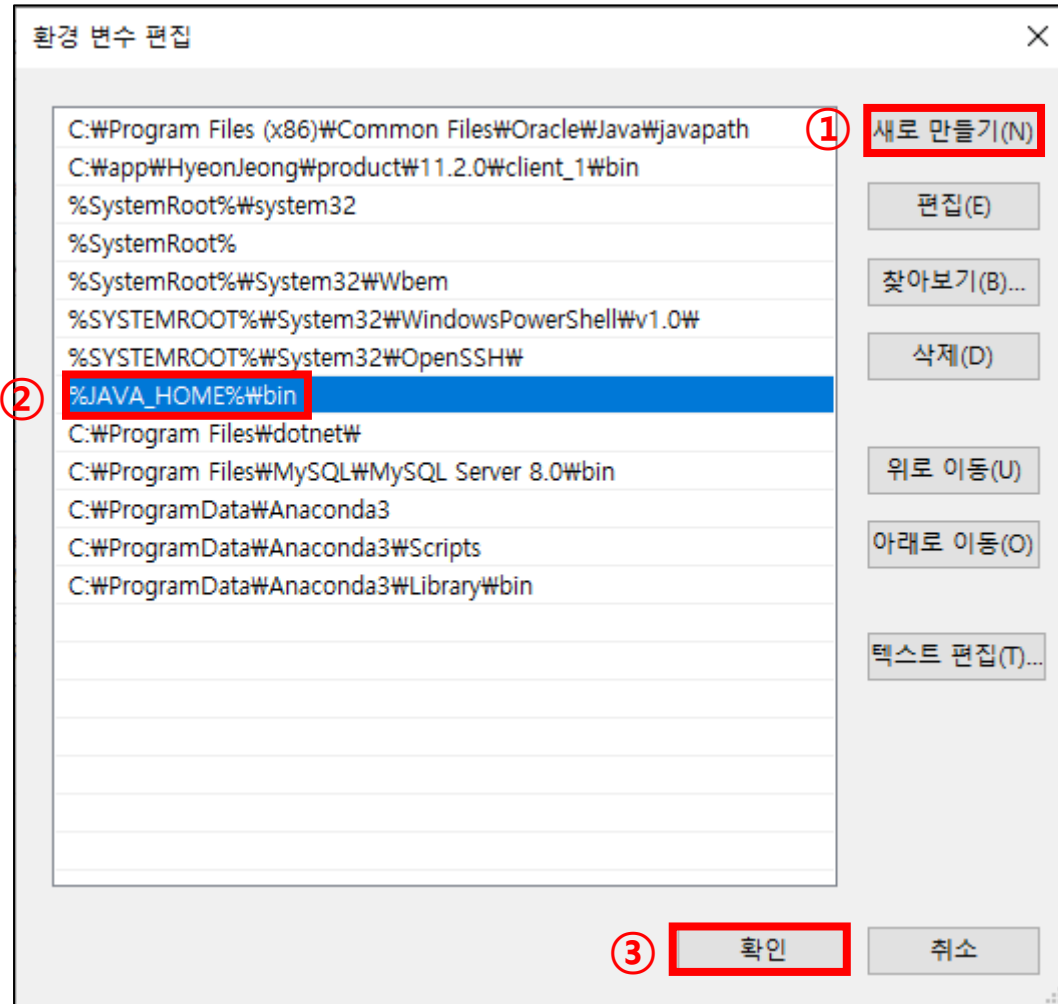
The screenshot shows the '시스템 변수 편집' (Edit System Variables) dialog box. The '변수 이름(N):' (Variable name) field contains 'CLASSPATH' and the '변수 값(V):' (Variable value) field contains '%JAVA_HOME%\lib'. Both fields are highlighted with a red rectangle. At the bottom right, the '확인' (OK) button is also highlighted with a red rectangle. Other buttons include '디렉터리 찾아보기(D)...' (Browse for directory...), '파일 찾아보기(F)...' (Browse for file...), and '취소' (Cancel).

10) "시스템 변수"의 "PATH" 선택 후 "편집" 클릭

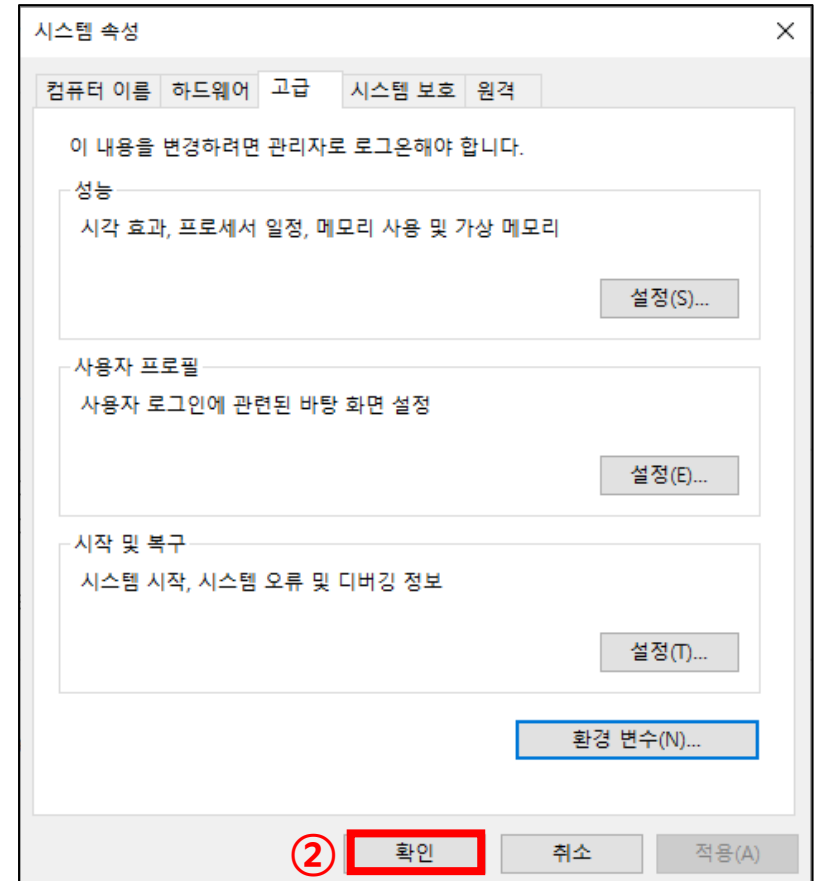
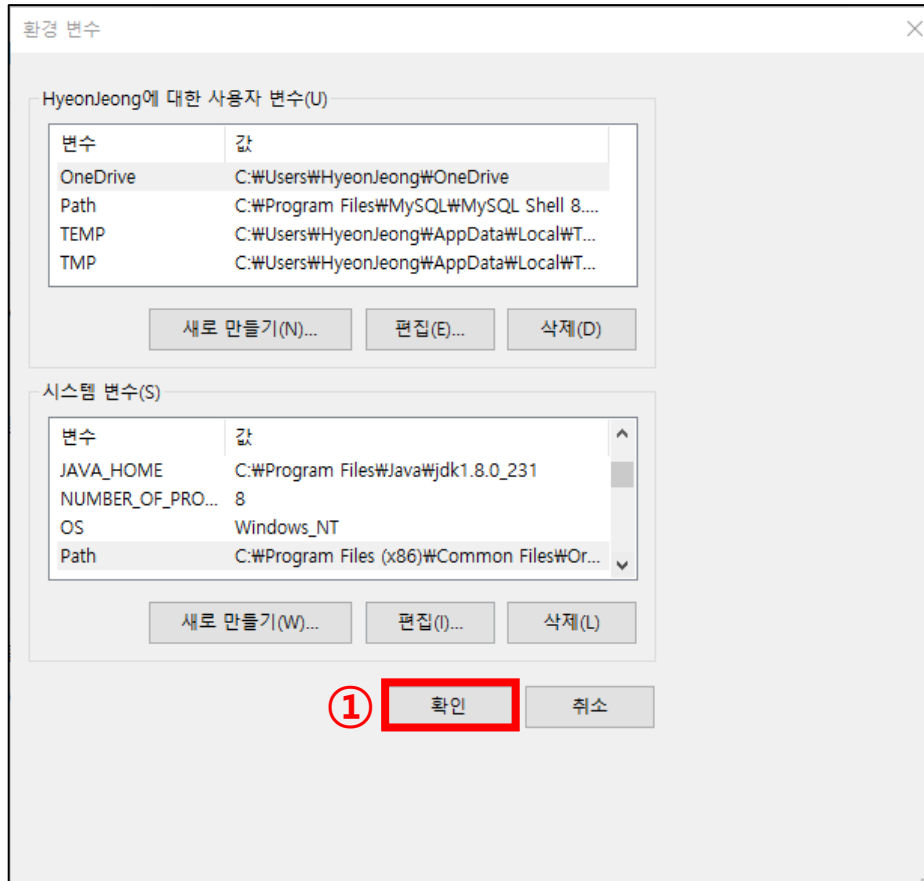


11) “새로 만들기” 클릭

12) %JAVA_HOME%\bin 입력 후 “확인” 클릭



13) “확인” 클릭



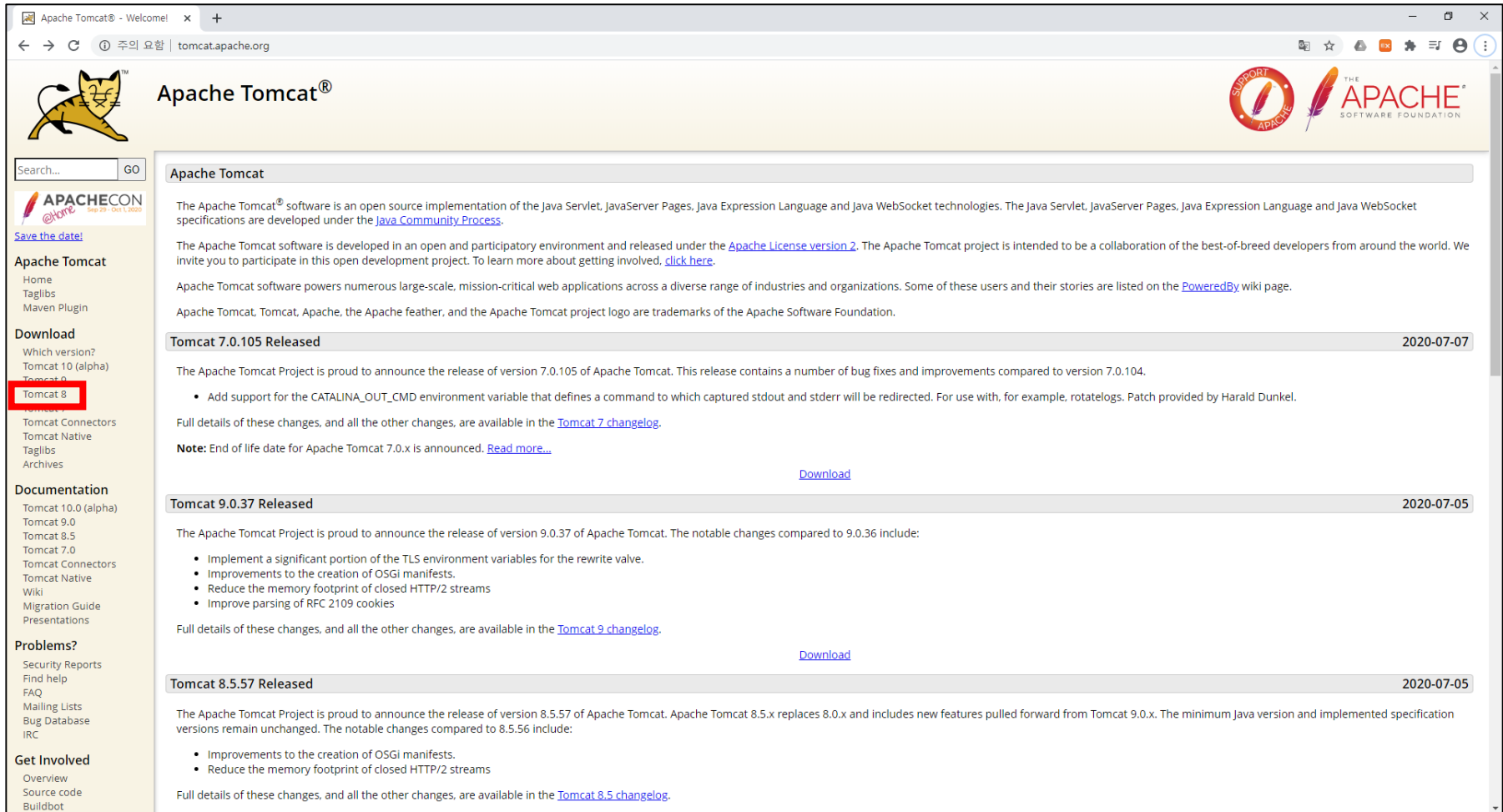
14) 명령 프롬프트 실행 → 환경 설정 확인을 위한 명령어를 입력하여 확인
명령어 : java, javac, java -version, javac -version

The image consists of three overlapping screenshots of a Windows command prompt window, titled "명령 프롬프트" (Command Prompt). The top-left screenshot shows the command `java` being entered at the prompt `C:\Users\HyeonJeong>`. Below it, the usage instructions for `java` are displayed: `사용법: java [-options] class [args...]` (클래스 실행) and `또는 java [-options] jar [args...]` (jar 실행). The top-right screenshot shows the command `javac` being entered at the prompt `C:\Users\HyeonJeong>`. Below it, the usage instructions for `javac` are displayed: `Usage: javac <options> <source files>` and a list of options including `-d32`, `-d64`, `-server`, `-g`, `-g:none`, `-g:{lines,vars,source}`, `-nowarn`, `-verbose`, `-deprecation`, `-classpath <path>`, `-cp <path>`, `-sourcepath <path>`, `-bootclasspath <path>`, `-extdirs <dirs>`, `-endorseddirs <dirs>`, and `-proc:{none,only}`. The bottom screenshot shows the command `java -version` being entered at the prompt `C:\Users\HyeonJeong>`. The output is displayed: `java version "1.8.0_231"`, `Java(TM) SE Runtime Environment (build 1.8.0_231-b11)`, and `Java HotSpot(TM) 64-Bit Server VM (build 25.231-b11, mixed mode)`. The command `javac -version` is also shown at the bottom of the third screenshot, with the output `javac 1.8.0_231`.

Tomcat 설치 (1/4)

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- 1) "http://tomcat.apache.org" 접속
- 2) "Download"의 "Tomcat 8" 클릭



The screenshot shows the Apache Tomcat website. The left sidebar contains a navigation menu with the following sections: Apache Tomcat (Home, Taglibs, Maven Plugin), Download (Which version?, Tomcat 10 (alpha), Tomcat 9, **Tomcat 8**, Tomcat Connectors, Tomcat Native, Taglibs, Archives), Documentation (Tomcat 10.0 (alpha), Tomcat 9.0, Tomcat 8.5, Tomcat 7.0, Tomcat Connectors, Tomcat Native, Wiki, Migration Guide, Presentations), Problems? (Security Reports, Find help, FAQ, Mailing Lists, Bug Database, IRC), and Get Involved (Overview, Source code, Buildbot). The main content area is titled "Apache Tomcat" and contains introductory text about the software. Below this, there are three release announcements: "Tomcat 7.0.105 Released" (dated 2020-07-07), "Tomcat 9.0.37 Released" (dated 2020-07-05), and "Tomcat 8.5.57 Released" (dated 2020-07-05). The "Tomcat 8" link in the sidebar is highlighted with a red box.

Apache Tomcat® - Welcome! x +

← → ↺ 주의 요함 | tomcat.apache.org

Apache Tomcat®

Search... GO

APACHECON @home

Save the date!

Apache Tomcat

Home
Taglibs
Maven Plugin

Download

Which version?
Tomcat 10 (alpha)
Tomcat 9
Tomcat 8
Tomcat Connectors
Tomcat Native
Taglibs
Archives

Documentation

Tomcat 10.0 (alpha)
Tomcat 9.0
Tomcat 8.5
Tomcat 7.0
Tomcat Connectors
Tomcat Native
Wiki
Migration Guide
Presentations

Problems?

Security Reports
Find help
FAQ
Mailing Lists
Bug Database
IRC

Get Involved

Overview
Source code
Buildbot

Apache Tomcat

The Apache Tomcat® software is an open source implementation of the Java Servlet, JavaServer Pages, Java Expression Language and Java WebSocket technologies. The Java Servlet, JavaServer Pages, Java Expression Language and Java WebSocket specifications are developed under the [Java Community Process](#).

The Apache Tomcat software is developed in an open and participatory environment and released under the [Apache License version 2](#). The Apache Tomcat project is intended to be a collaboration of the best-of-breed developers from around the world. We invite you to participate in this open development project. To learn more about getting involved, [click here](#).

Apache Tomcat software powers numerous large-scale, mission-critical web applications across a diverse range of industries and organizations. Some of these users and their stories are listed on the [PoweredBy](#) wiki page.

Apache Tomcat, Tomcat, Apache, the Apache feather, and the Apache Tomcat project logo are trademarks of the Apache Software Foundation.

Tomcat 7.0.105 Released 2020-07-07

The Apache Tomcat Project is proud to announce the release of version 7.0.105 of Apache Tomcat. This release contains a number of bug fixes and improvements compared to version 7.0.104.

- Add support for the CATALINA_OUT_CMD environment variable that defines a command to which captured stdout and stderr will be redirected. For use with, for example, rotatologs. Patch provided by Harald Dunkel.

Full details of these changes, and all the other changes, are available in the [Tomcat 7 changelog](#).

Note: End of life date for Apache Tomcat 7.0.x is announced. [Read more...](#)

[Download](#)

Tomcat 9.0.37 Released 2020-07-05

The Apache Tomcat Project is proud to announce the release of version 9.0.37 of Apache Tomcat. The notable changes compared to 9.0.36 include:

- Implement a significant portion of the TLS environment variables for the rewrite valve.
- Improvements to the creation of OSGi manifests.
- Reduce the memory footprint of closed HTTP/2 streams
- Improve parsing of RFC 2109 cookies

Full details of these changes, and all the other changes, are available in the [Tomcat 9 changelog](#).

[Download](#)

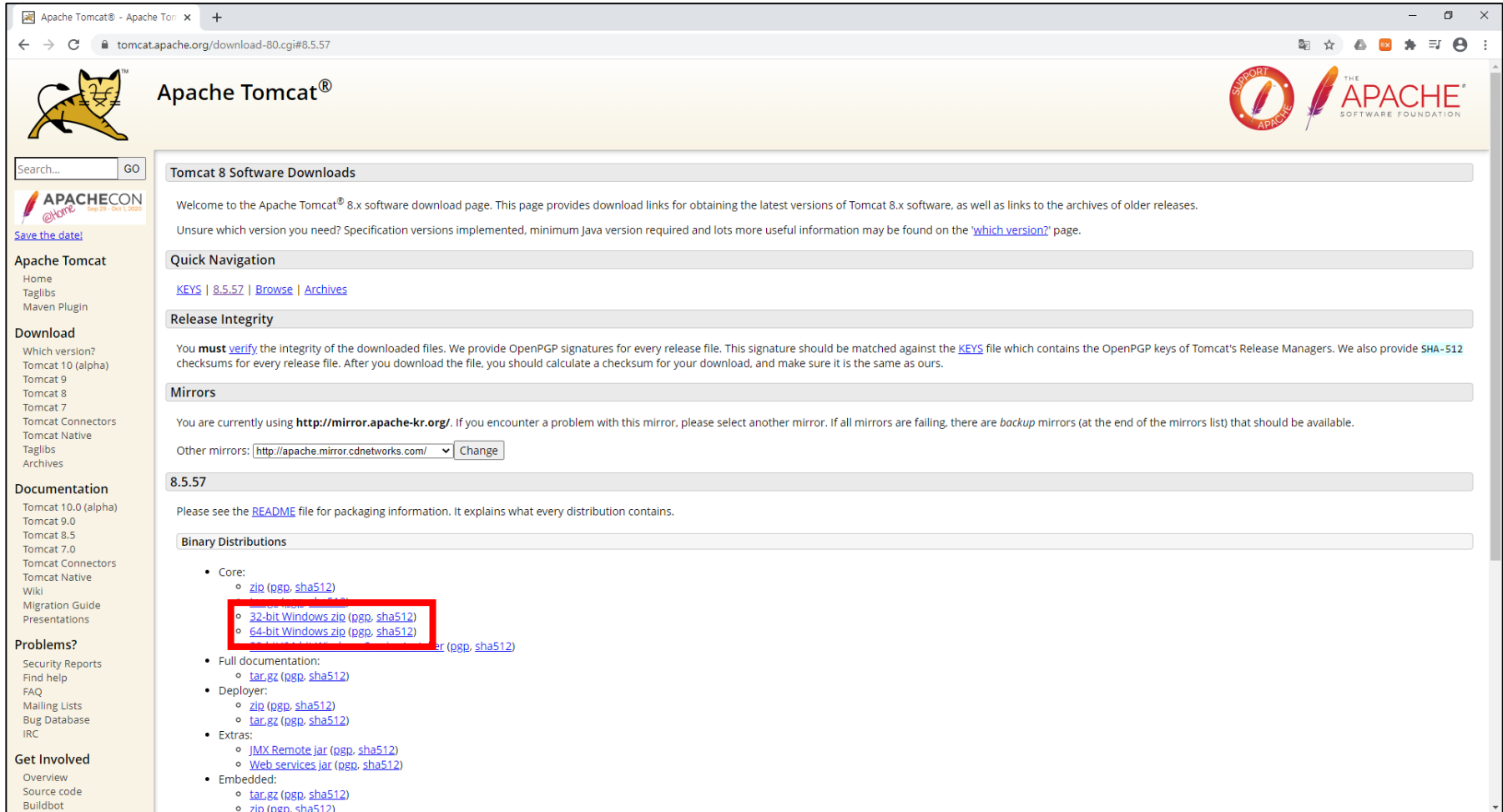
Tomcat 8.5.57 Released 2020-07-05

The Apache Tomcat Project is proud to announce the release of version 8.5.57 of Apache Tomcat. Apache Tomcat 8.5.x replaces 8.0.x and includes new features pulled forward from Tomcat 9.0.x. The minimum Java version and implemented specification versions remain unchanged. The notable changes compared to 8.5.56 include:

- Improvements to the creation of OSGi manifests.
- Reduce the memory footprint of closed HTTP/2 streams

Full details of these changes, and all the other changes, are available in the [Tomcat 8.5 changelog](#).

3) “Binary Distributions”에서 운영체제에 맞는 압축 파일 다운로드



Apache Tomcat® - Apache Tomcat®

tomcat.apache.org/download-80.cgi#8.5.57

Search... GO

APACHECON @home Sep 29 - Oct 1, 2020
Save the date!

Apache Tomcat
Home
Taglibs
Maven Plugin

Download
Which version?
Tomcat 10 (alpha)
Tomcat 9
Tomcat 8
Tomcat 7
Tomcat Connectors
Tomcat Native
Taglibs
Archives

Documentation
Tomcat 10.0 (alpha)
Tomcat 9.0
Tomcat 8.5
Tomcat 7.0
Tomcat Connectors
Tomcat Native
Wiki
Migration Guide
Presentations

Problems?
Security Reports
Find help
FAQ
Mailing Lists
Bug Database
IRC

Get Involved
Overview
Source code
Buildbot

Tomcat 8 Software Downloads

Welcome to the Apache Tomcat® 8.x software download page. This page provides download links for obtaining the latest versions of Tomcat 8.x software, as well as links to the archives of older releases.

Unsure which version you need? Specification versions implemented, minimum Java version required and lots more useful information may be found on the ["which version?"](#) page.

Quick Navigation

[KEYS](#) | [8.5.57](#) | [Browse](#) | [Archives](#)

Release Integrity

You **must** [verify](#) the integrity of the downloaded files. We provide OpenPGP signatures for every release file. This signature should be matched against the [KEYS](#) file which contains the OpenPGP keys of Tomcat's Release Managers. We also provide [SHA-512](#) checksums for every release file. After you download the file, you should calculate a checksum for your download, and make sure it is the same as ours.

Mirrors

You are currently using <http://mirror.apache-kr.org/>. If you encounter a problem with this mirror, please select another mirror. If all mirrors are failing, there are *backup* mirrors (at the end of the mirrors list) that should be available.

Other mirrors: <http://apache.mirror.cdnetworks.com/>

8.5.57

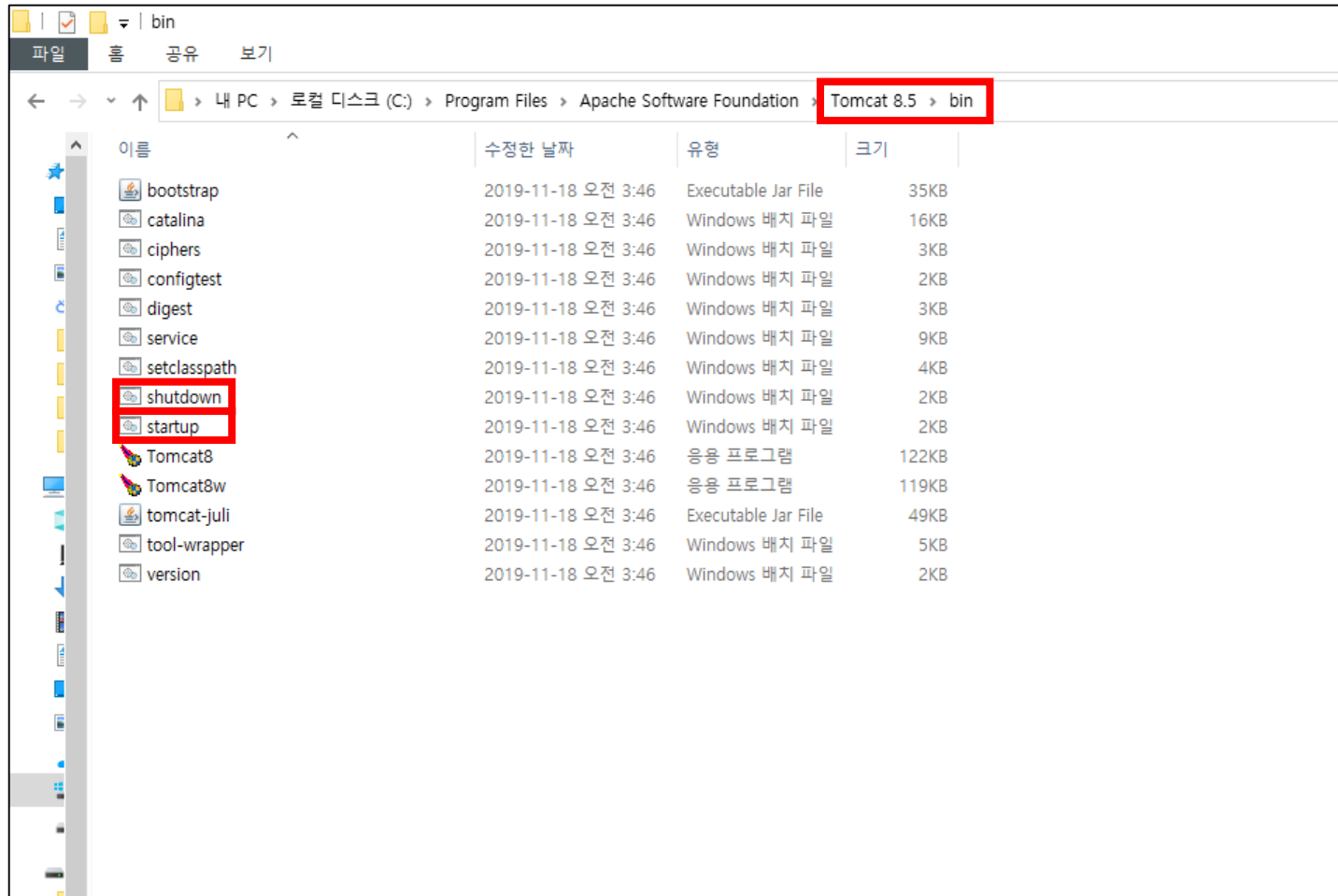
Please see the [README](#) file for packaging information. It explains what every distribution contains.

Binary Distributions

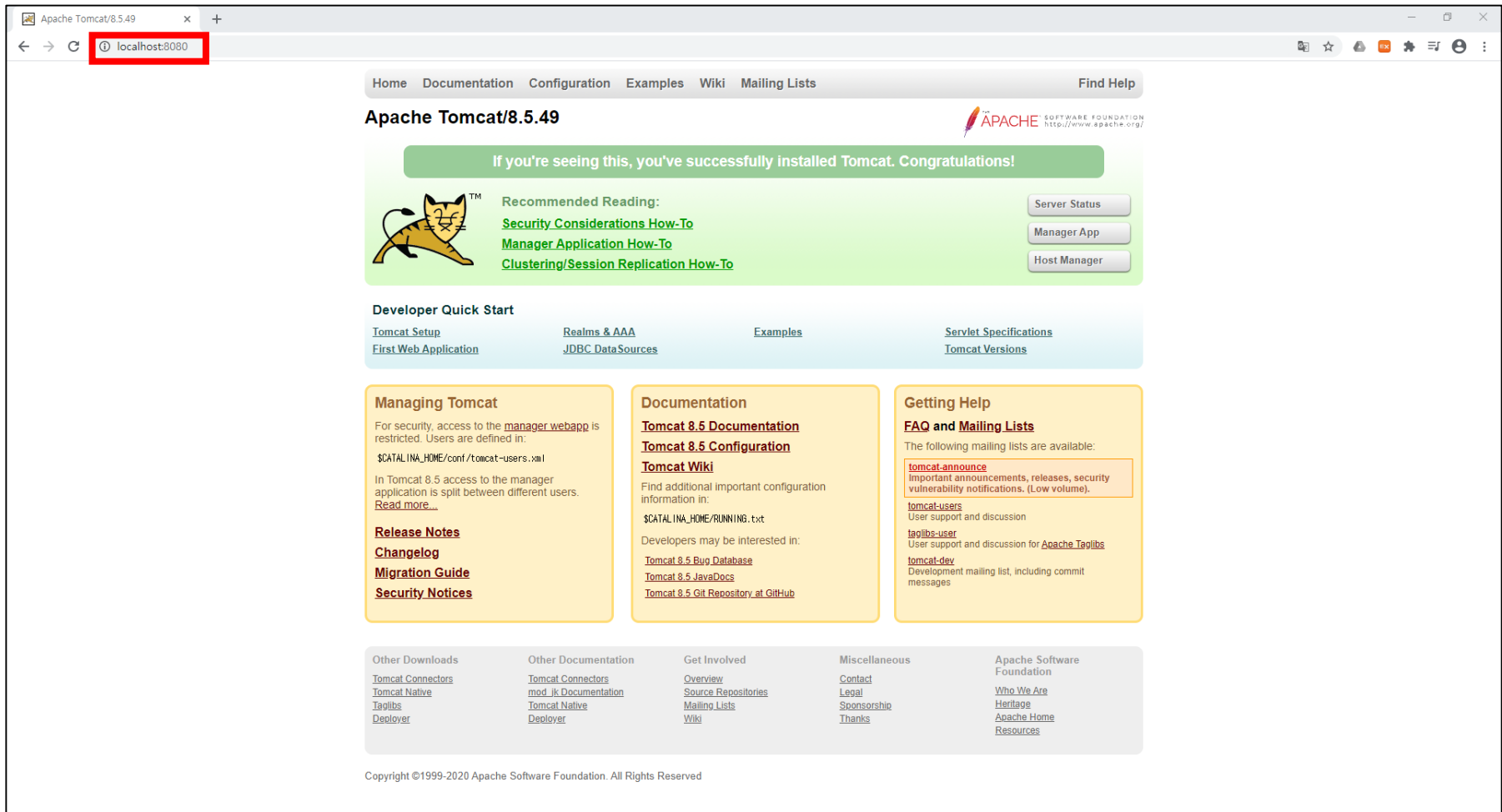
- Core:
 - [zip \(pgp, sha512\)](#)
 - [tar.gz \(pgp, sha512\)](#)
 - [32-bit Windows zip \(pgp, sha512\)](#)**
 - [64-bit Windows zip \(pgp, sha512\)](#)**
 - [Self-Extracting Windows zip \(pgp, sha512\)](#)
- Full documentation:
 - [tar.gz \(pgp, sha512\)](#)
- Deployer:
 - [zip \(pgp, sha512\)](#)
 - [tar.gz \(pgp, sha512\)](#)
- Extras:
 - [JMX Remote jar \(pgp, sha512\)](#)
 - [Web services jar \(pgp, sha512\)](#)
- Embedded:
 - [tar.gz \(pgp, sha512\)](#)
 - [zip \(pgp, sha512\)](#)

4) Tomcat 설치 폴더 → “bin” 폴더

- 실행 : “startup.bat” 배치 파일 클릭
- 종료 : “shutdown.bat” 배치 파일 클릭

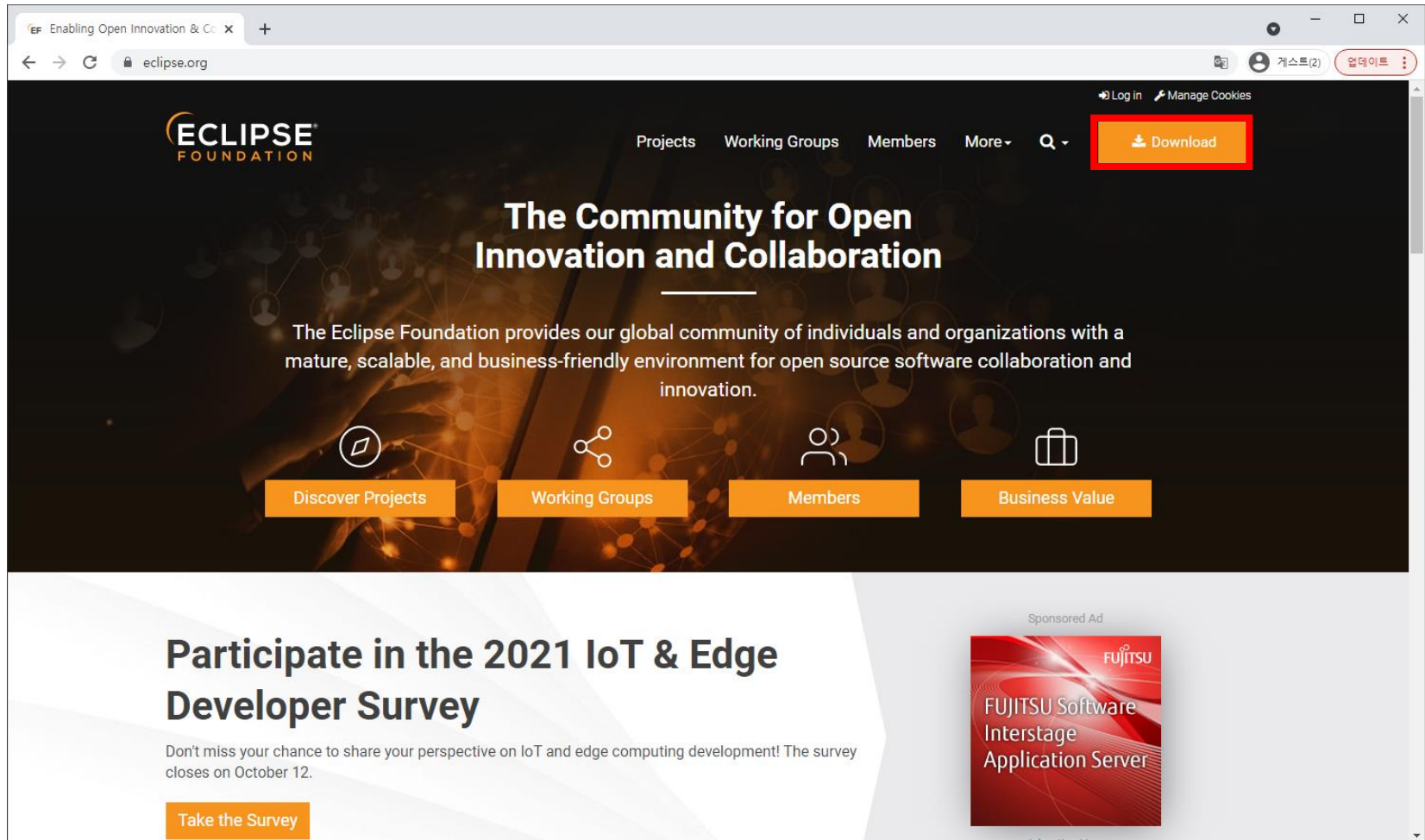


5) "localhost:8080"을 입력하여 아래와 같은 창이 뜬다면 정상 실행



The screenshot shows a web browser window with the address bar set to `localhost:8080`. The page displays the Apache Tomcat/8.5.49 welcome screen. At the top, there are navigation links: Home, Documentation, Configuration, Examples, Wiki, Mailing Lists, and a Find Help button. Below this, a green banner reads: "If you're seeing this, you've successfully installed Tomcat. Congratulations!". To the left of this banner is the Tomcat logo. To the right, under "Recommended Reading", there are links to "Security Considerations How-To", "Manager Application How-To", and "Clustering/Session Replication How-To". Further right are buttons for "Server Status", "Manager App", and "Host Manager". Below the banner is a "Developer Quick Start" section with links to "Tomcat Setup", "Realms & AAA", "Examples", "Servlet Specifications", "First Web Application", "JDBC DataSources", and "Tomcat Versions". The main content area is divided into three columns: "Managing Tomcat" (with links to "Release Notes", "Changelog", "Migration Guide", "Security Notices", and instructions on accessing the manager webapp), "Documentation" (with links to "Tomcat 8.5 Documentation", "Tomcat 8.5 Configuration", "Tomcat Wiki", and instructions on finding configuration information), and "Getting Help" (with links to "FAQ and Mailing Lists" and a list of available mailing lists including "tomcat-announce", "tomcat-users", "tomcat-dev", and "tomcat-announce"). At the bottom, there are five sections: "Other Downloads" (Tomcat Connectors, Tomcat Native, Tomcat Native, Tomcat Native, Tomcat Native), "Other Documentation" (Tomcat Connectors, mod_its Documentation, Tomcat Native, Deployer), "Get Involved" (Overview, Source Repositories, Mailing Lists, Wiki), "Miscellaneous" (Contact, Legal, Sponsorship, Thanks), and "Apache Software Foundation" (Who We Are, Heritage, Apache Home, Resources). The footer contains the copyright notice: "Copyright ©1999-2020 Apache Software Foundation. All Rights Reserved".

1) "eclipse.org" 접속 후 "Download" 클릭



2) "Download Packages" 클릭

The screenshot shows the Eclipse Downloads page in a web browser. The browser's address bar displays 'eclipse.org/downloads/'. The page features the Eclipse Foundation logo and navigation links like 'Projects', 'Working Groups', and 'Members'. A large banner on the left says 'Download Eclipse Technology that is right for you'. On the right, there's a sponsored advertisement for 'Squish GUI Tester' with a 'FREE TRIAL' button. Below the banner, there's a section for 'Tool Platforms' featuring 'Eclipse Che' and 'ORION'. On the left side of this section, a blue box notes that the Eclipse Installer 2021-09 R includes a JRE for macOS, Windows, and Linux. Below this, it says 'Get Eclipse IDE 2021-09' and 'Install your favorite desktop IDE packages.' There are two orange buttons: 'Download x86_64' and 'Download Packages'. The 'Download Packages' button is highlighted with a red rectangular box. To the right of the 'Download Packages' button is a link that says 'Need Help?'. The browser's top right corner shows a user profile '게스트(2)' and a red '업데이트' (Update) button.

Eclipse Downloads | The Eclipse Foundation

← → ↻ 🔒 eclipse.org/downloads/

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Squish GUI Tester

Cross-Platform GUI Test Automation

FREE TRIAL

Sponsored Ad

The Eclipse Installer 2021-09 R now includes a JRE for macOS, Windows and Linux.

Get Eclipse IDE 2021-09

Install your favorite desktop IDE packages.

Download x86_64

Download Packages Need Help?

Tool Platforms

Eclipse Che

Eclipse Che is a developer workspace server and cloud IDE.

ORION

A modern, open source software development environment that runs in the cloud.

3) “Older Versions” 클릭

The screenshot shows the Eclipse Packages website with the following content:

- Eclipse IDE for Enterprise Java and Web Developers**
 - 517 MB | 204,494 DOWNLOADS
 - Tools for developers working with Java and Web applications, including a Java IDE, tools for JavaScript, TypeScript, JavaServer Pages and Faces, Yaml, Markdown, Web Services, JPA and Data Tools, Maven and Gradle, Git, and more.
 - Windows x86_64, macOS x86_64, Linux x86_64 | AArch64
- Eclipse IDE for C/C++ Developers**
 - 350 MB | 35,721 DOWNLOADS
 - An IDE for C/C++ developers.
 - Windows x86_64, macOS x86_64, Linux x86_64 | AArch64
- Eclipse IDE for Eclipse Committers**
 - 412 MB | 11,685 DOWNLOADS
 - Package suited for development of Eclipse itself at Eclipse.org; based on the Eclipse Platform adding PDE, Git, Marketplace Client, source code and developer documentation.
 - Windows x86_64, macOS x86_64, Linux x86_64 | AArch64
- Eclipse IDE for PHP Developers**
 - 259 MB | 7,430 DOWNLOADS
 - The essential tools for any PHP developer, including PHP language support, Git client, Mylyn and editors for JavaScript, TypeScript, HTML, CSS and XML.
 - Windows x86_64, macOS x86_64, Linux x86_64 | AArch64

RELATED LINKS

- Compare & Combine Packages
- New and Noteworthy
- Install Guide
- Documentation
- Updating Eclipse
- Forums
- Simultaneous Release

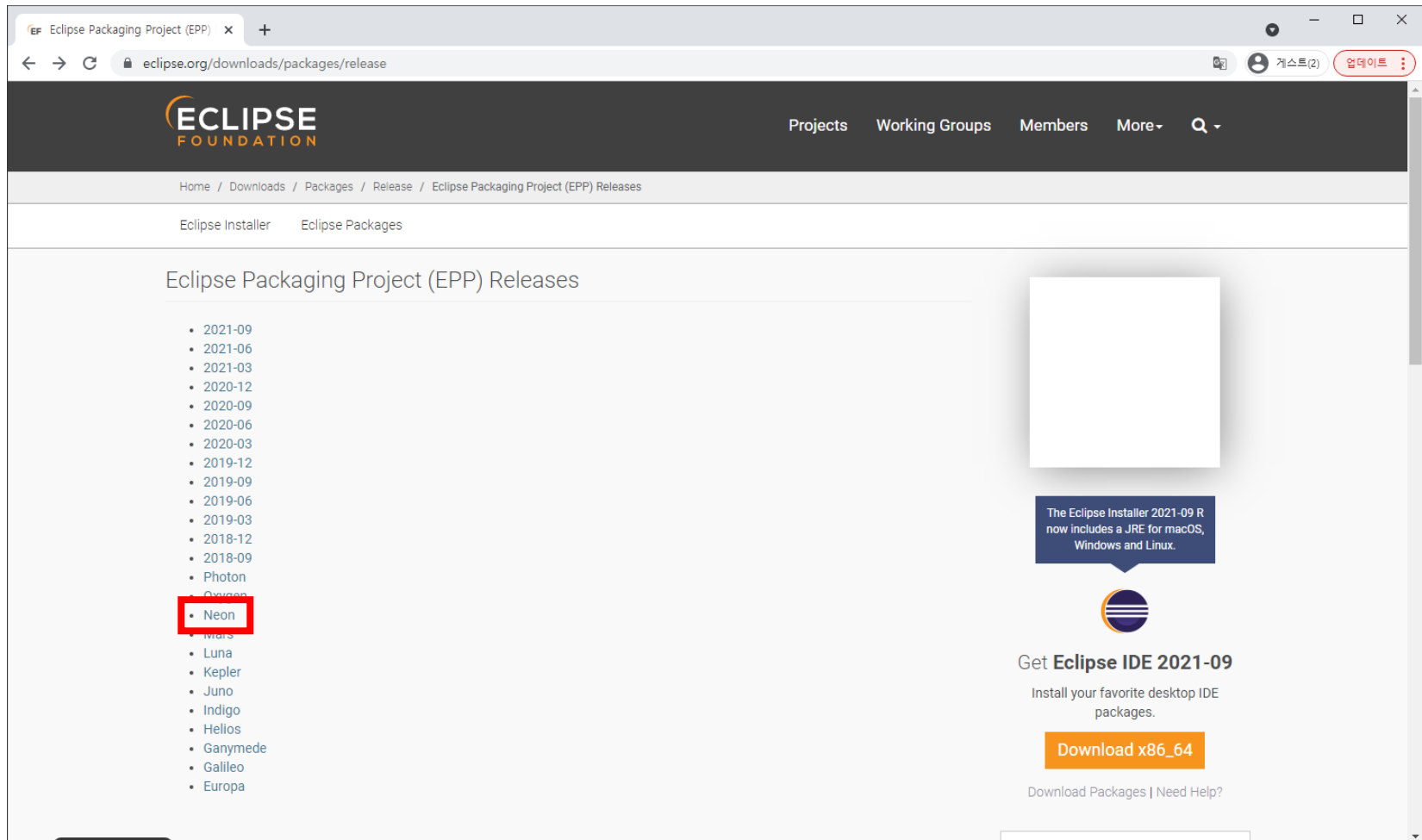
MORE DOWNLOADS

- Other builds
- Eclipse 2021-09 (4.21)
- Eclipse 2021-06 (4.20)
- Eclipse 2021-03 (4.19)
- Eclipse 2020-12 (4.18)
- Eclipse 2020-09 (4.17)
- Eclipse 2020-06 (4.16)
- Eclipse 2020-03 (4.15)
- Older Versions**

HINT

You will need a Java runtime environment (JRE) to use Eclipse (Java SE 11 or greater is recommended). Some of the packages come with a JRE. All

4) "Neon" 클릭



Eclipse Packaging Project (EPP) Releases

- 2021-09
- 2021-06
- 2021-03
- 2020-12
- 2020-09
- 2020-06
- 2020-03
- 2019-12
- 2019-09
- 2019-06
- 2019-03
- 2018-12
- 2018-09
- Photon
- Overlook
- **Neon**
- Mars
- Luna
- Kepler
- Juno
- Indigo
- Helios
- Ganymede
- Galileo
- Europa

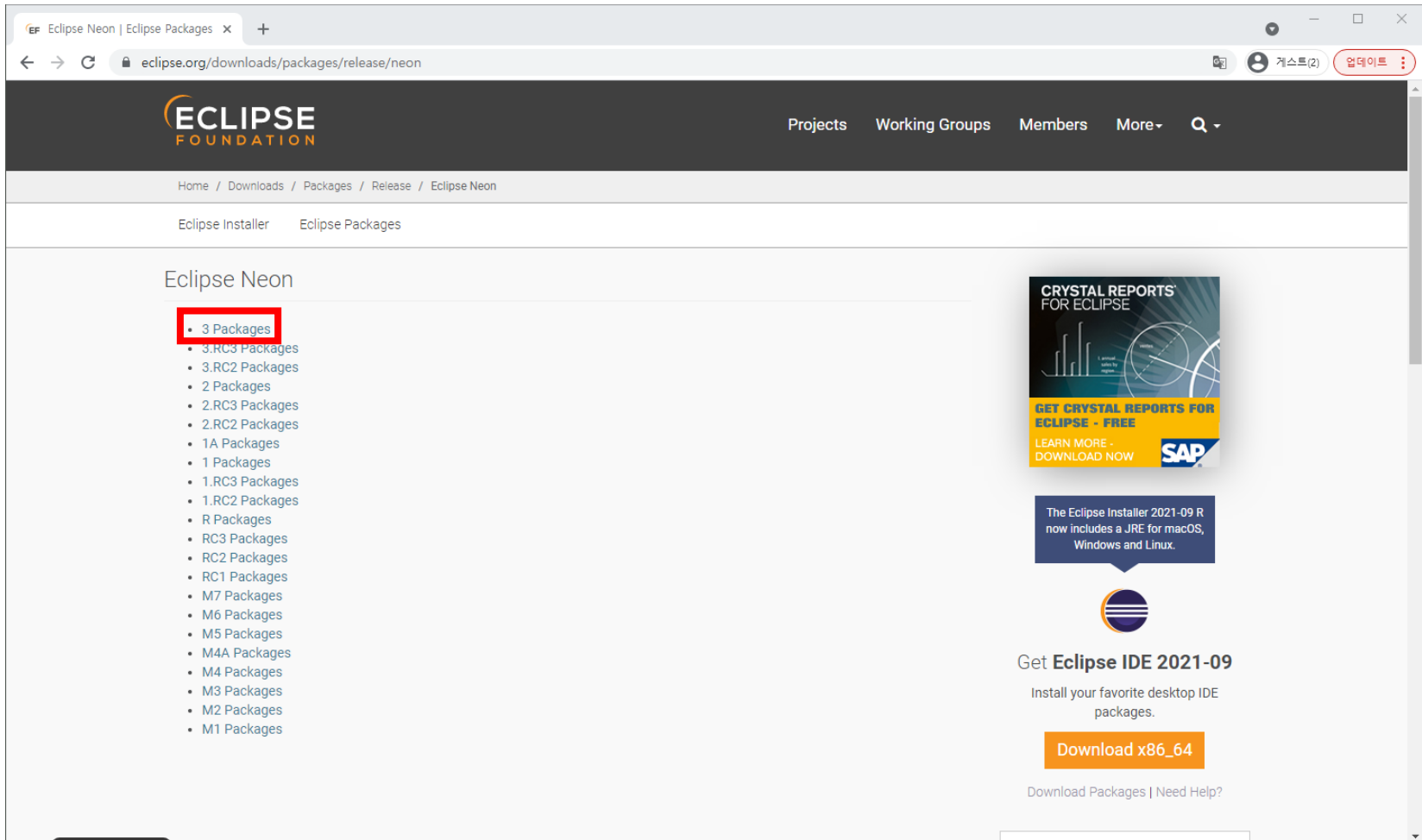
The Eclipse Installer 2021-09 R now includes a JRE for macOS, Windows and Linux.

Get **Eclipse IDE 2021-09**
Install your favorite desktop IDE packages.

[Download x86_64](#)

[Download Packages](#) | [Need Help?](#)

5) “3 Packages” 클릭



The screenshot shows the Eclipse Neon download page. The browser address bar displays `eclipse.org/downloads/packages/release/neon`. The page header includes the Eclipse Foundation logo and navigation links: Projects, Working Groups, Members, More, and a search icon. The breadcrumb trail is Home / Downloads / Packages / Release / Eclipse Neon. Below the breadcrumb, there are links for Eclipse Installer and Eclipse Packages. The main content area is titled 'Eclipse Neon' and contains a list of package options. The first item, '3 Packages', is highlighted with a red rectangular box. The subsequent items in the list are: 3.RC3 Packages, 3.RC2 Packages, 2 Packages, 2.RC3 Packages, 2.RC2 Packages, 1A Packages, 1 Packages, 1.RC3 Packages, 1.RC2 Packages, R Packages, RC3 Packages, RC2 Packages, RC1 Packages, M7 Packages, M6 Packages, M5 Packages, M4A Packages, M4 Packages, M3 Packages, M2 Packages, and M1 Packages. To the right of the package list, there is a promotional banner for 'CRYSTAL REPORTS FOR ECLIPSE' with a 'GET CRYSTAL REPORTS FOR ECLIPSE - FREE' button and a 'SAP' logo. Below this, a blue box states 'The Eclipse Installer 2021-09 R now includes a JRE for macOS, Windows and Linux.' followed by the Eclipse logo. Further down, the text 'Get Eclipse IDE 2021-09' is displayed, followed by 'Install your favorite desktop IDE packages.' and a 'Download x86_64' button. At the bottom, there is a link for 'Download Packages | Need Help?'.

Eclipse Neon

- 3 Packages
- 3.RC3 Packages
- 3.RC2 Packages
- 2 Packages
- 2.RC3 Packages
- 2.RC2 Packages
- 1A Packages
- 1 Packages
- 1.RC3 Packages
- 1.RC2 Packages
- R Packages
- RC3 Packages
- RC2 Packages
- RC1 Packages
- M7 Packages
- M6 Packages
- M5 Packages
- M4A Packages
- M4 Packages
- M3 Packages
- M2 Packages
- M1 Packages

CRYSTAL REPORTS FOR ECLIPSE

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LEARN MORE - DOWNLOAD NOW

SAP

The Eclipse Installer 2021-09 R now includes a JRE for macOS, Windows and Linux.

Get Eclipse IDE 2021-09

Install your favorite desktop IDE packages.

Download x86_64

Download Packages | Need Help?

6) "x86_64" 클릭

Neon 3 | Eclipse Packages

eclipse.org/downloads/packages/release/neon/3

ECLIPSE FOUNDATION

Projects Working Groups Members More- Q

Home / Downloads / Packages / Release / Eclipse IDE Neon / 3

Eclipse Installer Eclipse Packages

Eclipse IDE Neon 3 Packages

Package	Size	Downloads	Operating Systems
Eclipse IDE for Java EE Developers	304 MB	1,588,184 DOWNLOADS	Windows 32-bit x86_64 macOS x86_64 Linux x86_64
Eclipse IDE for Java Developers	161 MB	741,319 DOWNLOADS	Windows 32-bit x86_64 macOS x86_64 Linux x86_64
Eclipse IDE for C/C++ Developers	182 MB	210,026 DOWNLOADS	Windows 32-bit x86_64 macOS x86_64 Linux x86_64
Eclipse for Android Developers (includes Incubating components)	247 MB	147,200 DOWNLOADS	Windows 32-bit x86_64 macOS x86_64 Linux x86_64

The Eclipse Installer 2021-09 R now includes a JRE for macOS, Windows and Linux.

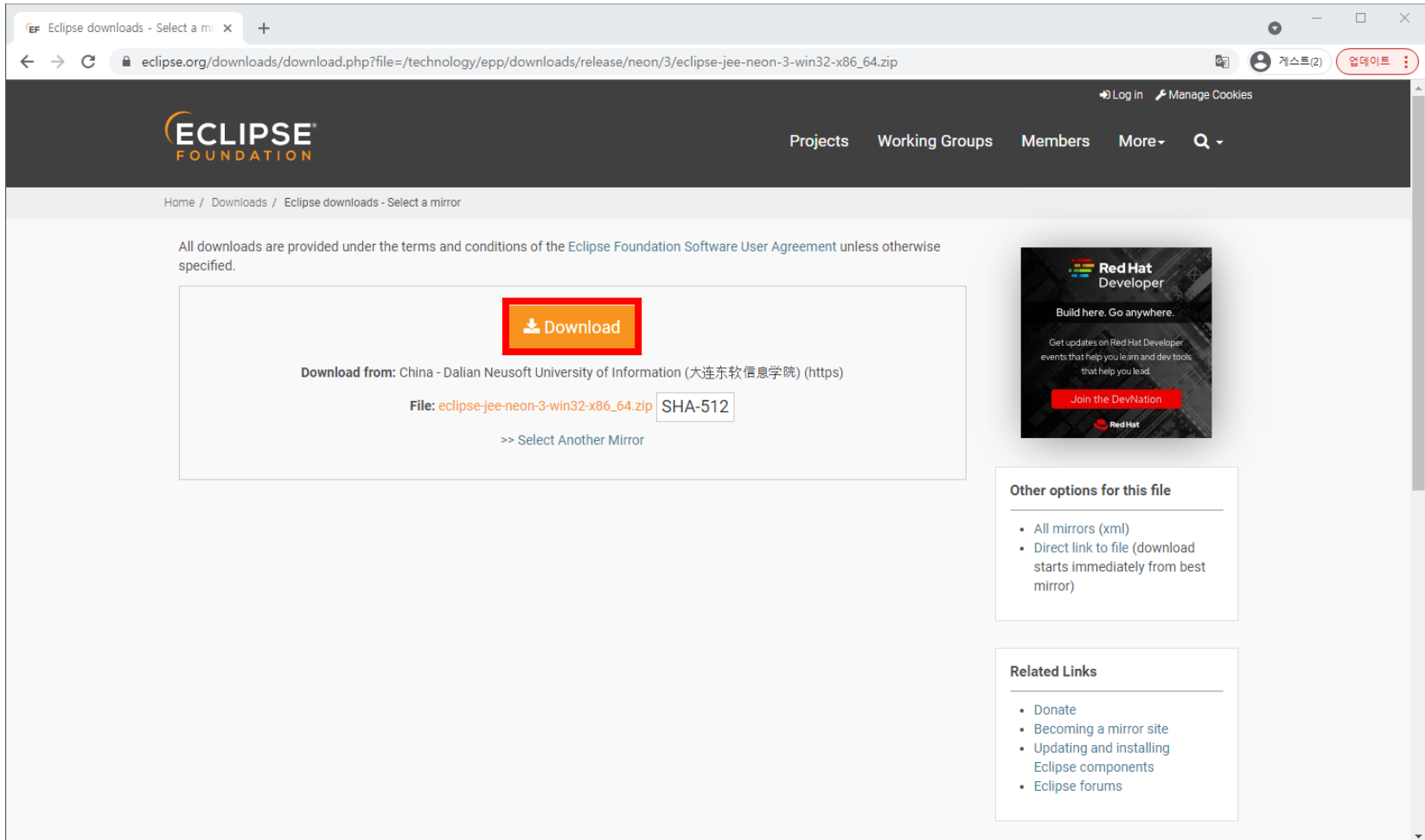
Get **Eclipse IDE 2021-09**

Install your favorite desktop IDE packages.

[Download x86_64](#)

[Download Packages](#) | [Need Help?](#)

7) "Download" 클릭 후 압축 해제



Eclipse downloads - Select a mirror

← → ↻ 🔒 eclipse.org/downloads/download.php?file=/technology/epp/downloads/release/neon/3/eclipse-jee-neon-3-win32-x86_64.zip

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Home / Downloads / Eclipse downloads - Select a mirror

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Download from: China - Dalian Neusoft University of Information (大连东软信息学院) (<https>)

File: [eclipse-jee-neon-3-win32-x86_64.zip](#) SHA-512

>> Select Another Mirror

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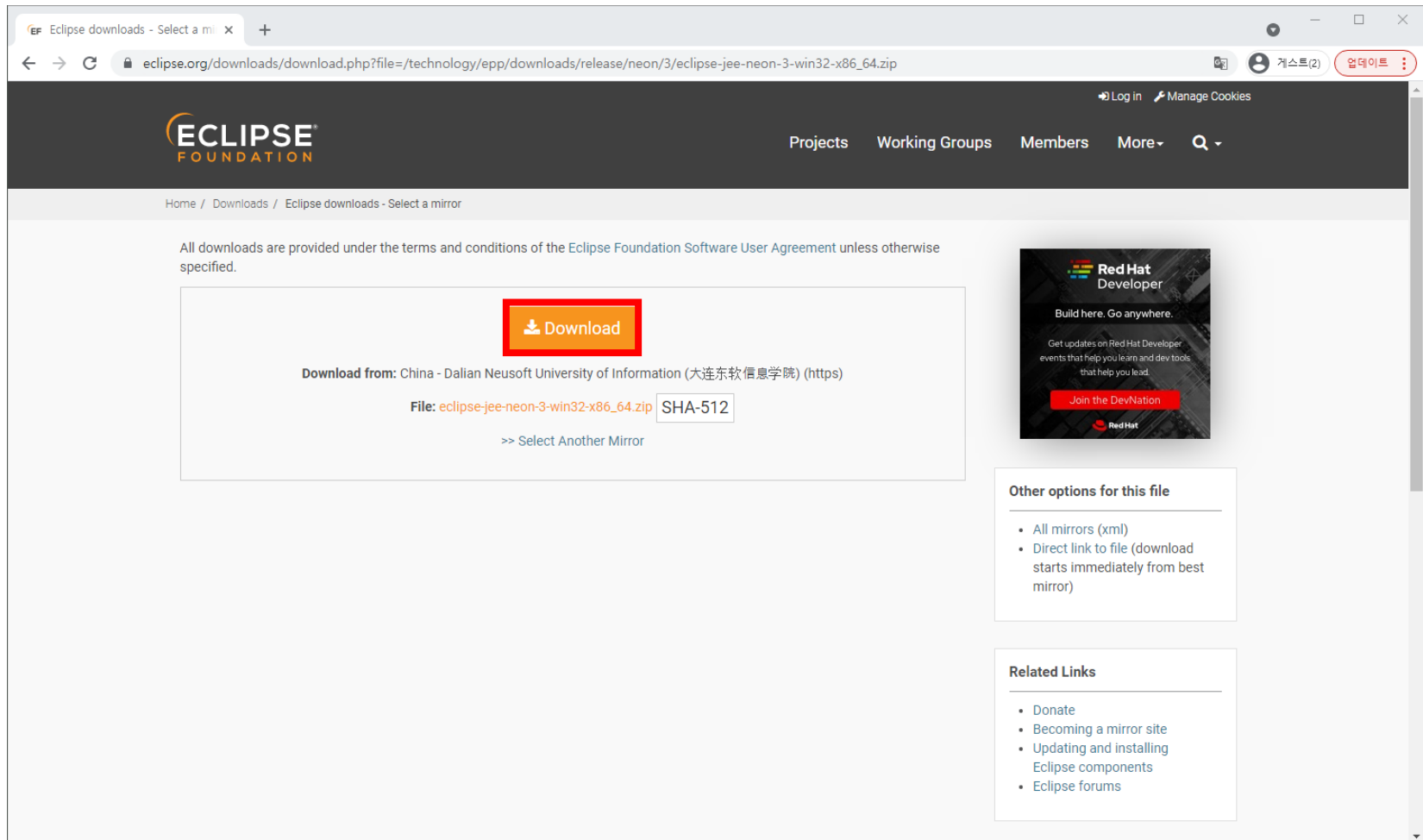
Other options for this file

- All mirrors (xml)
- Direct link to file (download starts immediately from best mirror)

Related Links

- [Donate](#)
- [Becoming a mirror site](#)
- [Updating and installing Eclipse components](#)
- [Eclipse forums](#)

8) "eclipse.exe" 실행



Eclipse downloads - Select a mirror

← → ↻ 🔒 eclipse.org/downloads/download.php?file=/technology/epp/downloads/release/neon/3/eclipse-jee-neon-3-win32-x86_64.zip

Log In Manage Cookies

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Home / Downloads / Eclipse downloads - Select a mirror

All downloads are provided under the terms and conditions of the [Eclipse Foundation Software User Agreement](#) unless otherwise specified.

[Download](#)

Download from: China - Dalian Neusoft University of Information (大连东软信息学院) (<https>)

File: [eclipse-jee-neon-3-win32-x86_64.zip](#) [SHA-512](#)

[>> Select Another Mirror](#)

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Other options for this file

- [All mirrors \(xml\)](#)
- [Direct link to file \(download starts immediately from best mirror\)](#)

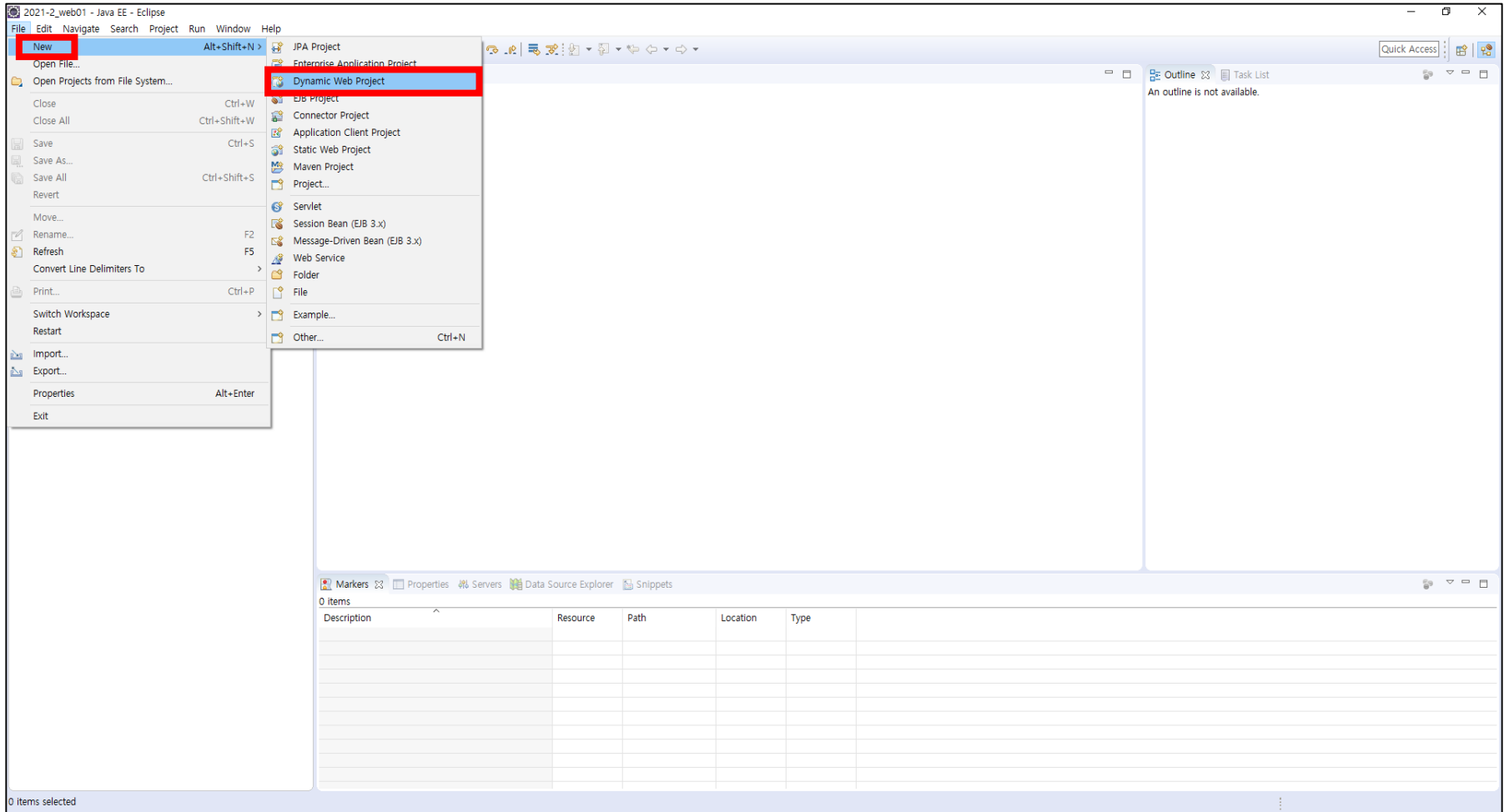
Related Links

- [Donate](#)
- [Becoming a mirror site](#)
- [Updating and installing Eclipse components](#)
- [Eclipse forums](#)

Eclipse 설치 및 환경 설정 (9/18)

32/60

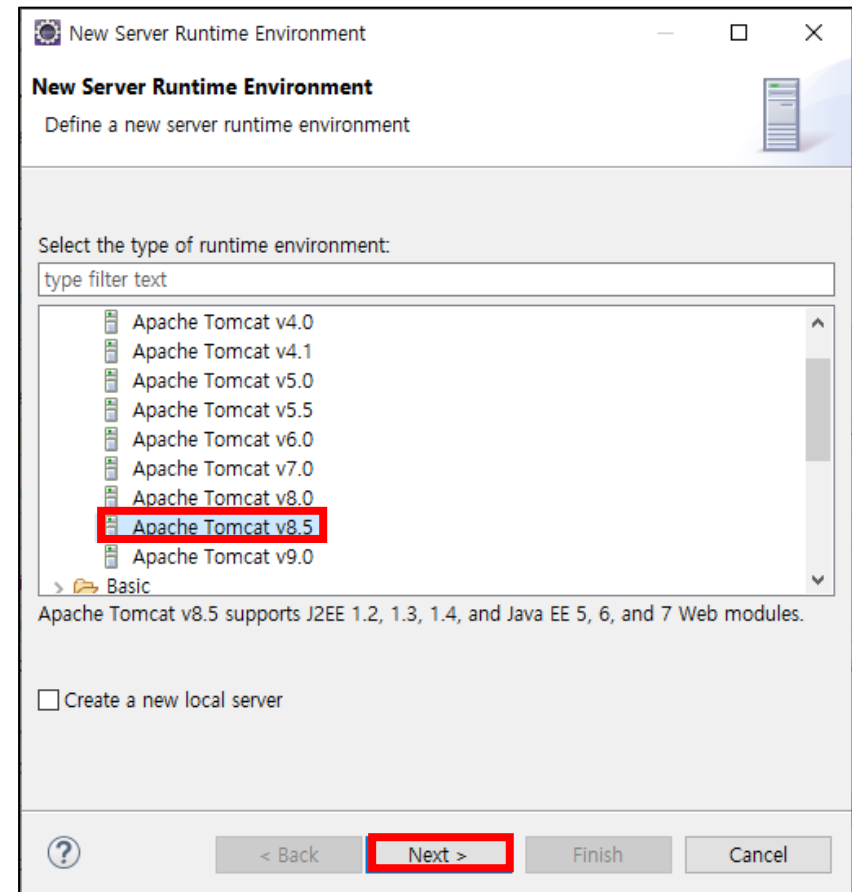
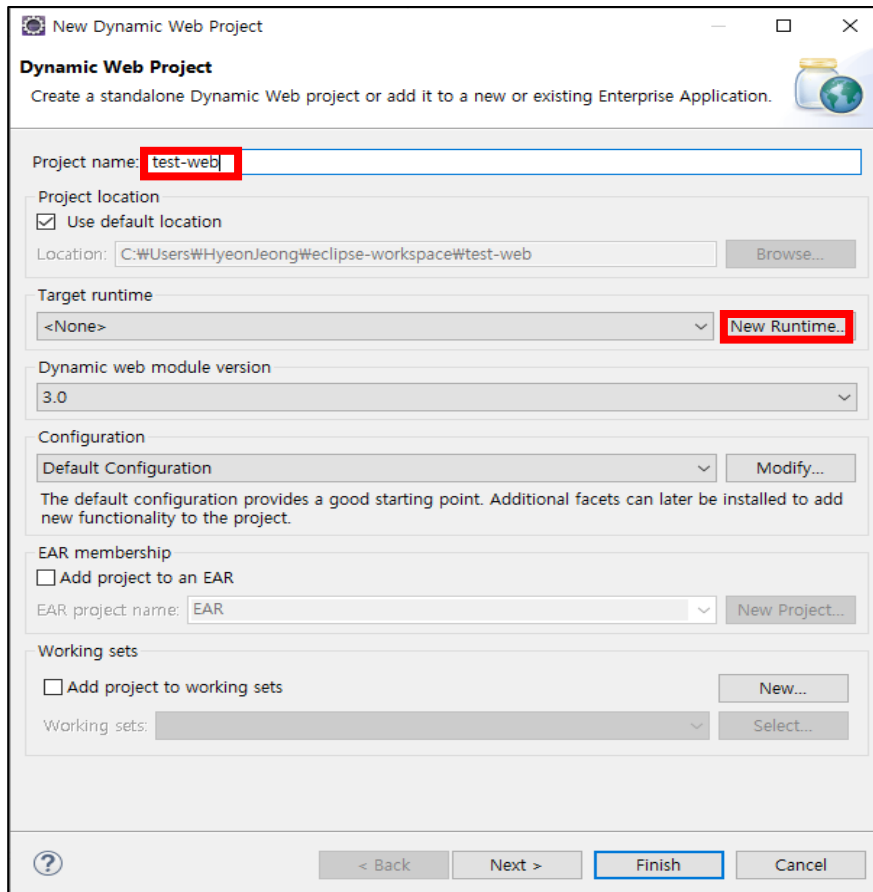
9) 이클립스 실행 후 “File” → “New ” → “Dynamic Web Project” 클릭



Eclipse 설치 및 환경 설정 (10/18)

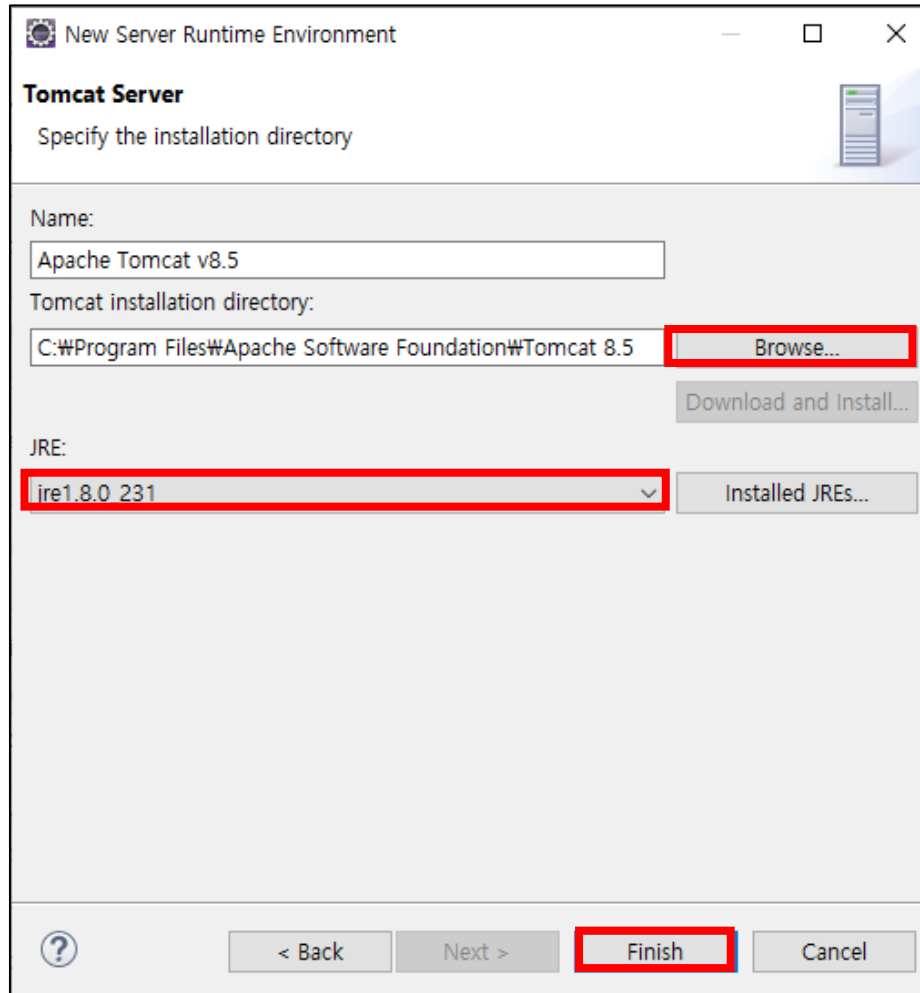
33/60

- 10) Project name 입력 후 “Target runtime” 설정을 위해 “New Runtime” 클릭
- 11) “Apache Tomcat v8.5” 선택 후 “Next” 클릭



12) "Browse"를 클릭하여 Tomcat을 설치 폴더 선택

13) 본인 PC에 설치한 jre 선택 후 "Finish" 클릭



14) "Target runtime"과 "Configuration"의 변경을 확인한 후 "Next" 클릭

New Dynamic Web Project

Dynamic Web Project
Create a standalone Dynamic Web project or add it to a new or existing Enterprise Application.

Project name: test-web

Project location
☒ Use default location
Location: C:\Users\HyeonJeong\workspace\test-web Browse...

Target runtime
Apache Tomcat v8.5 New Runtime...

Dynamic web module version
3.1

Configuration
Default Configuration for Apache Tomcat v8.5 Modify...
A good starting point for working with Apache Tomcat v8.5 runtime. Additional facets can later be installed to add new functionality to the project.

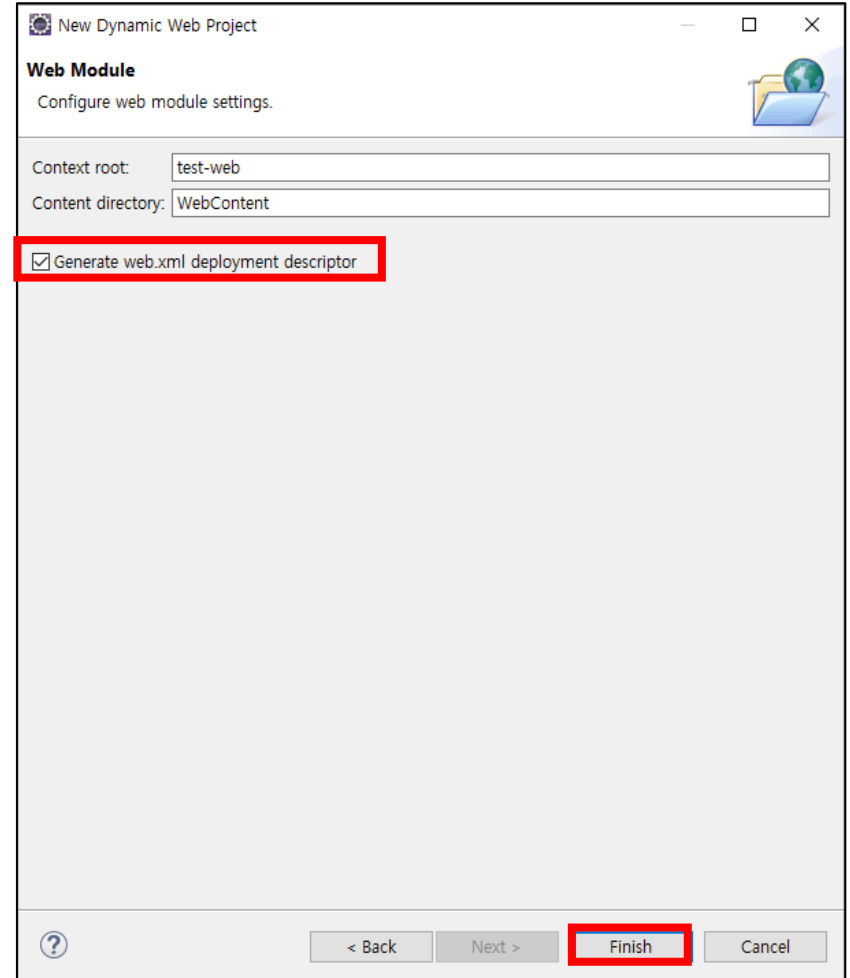
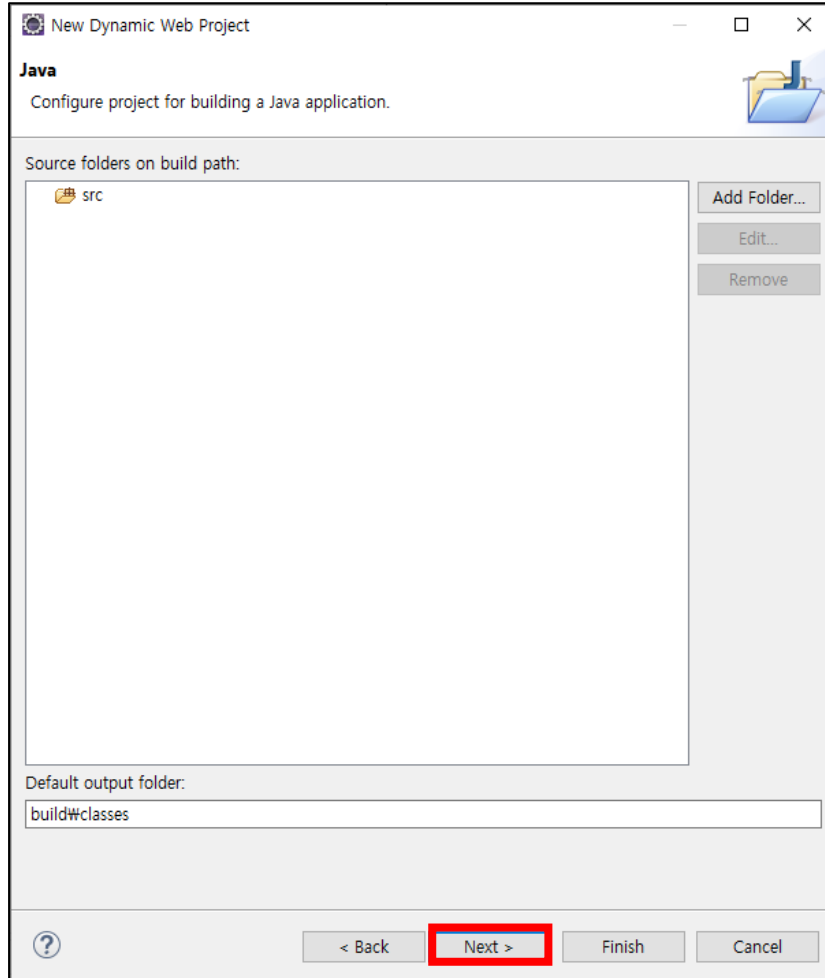
EAR membership
☐ Add project to an EAR
EAR project name: test-webEAR New Project...

Working sets
☐ Add project to working sets New...
Working sets: Select...

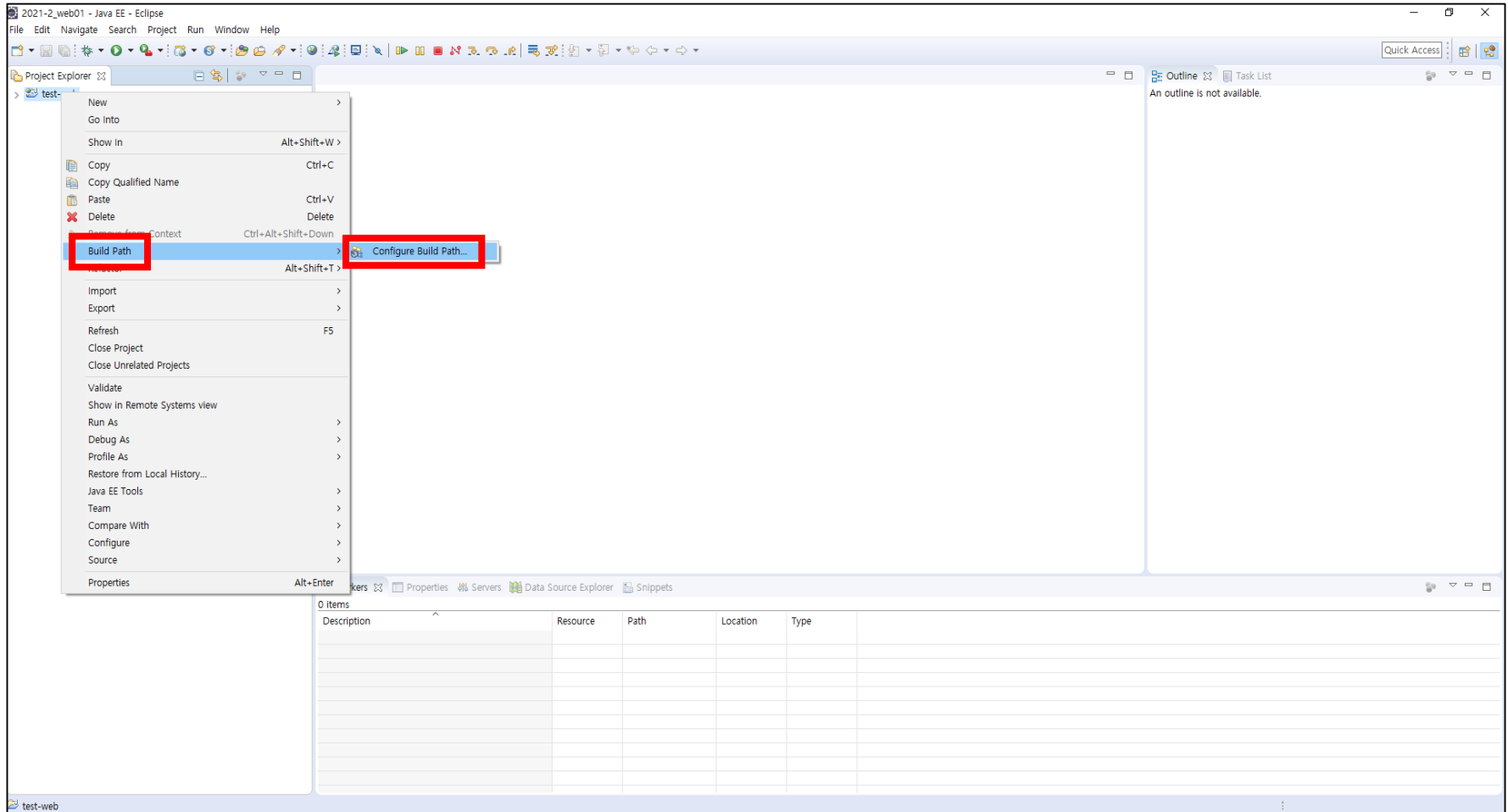
? < Back **Next >** Finish Cancel

15) "Next" 클릭

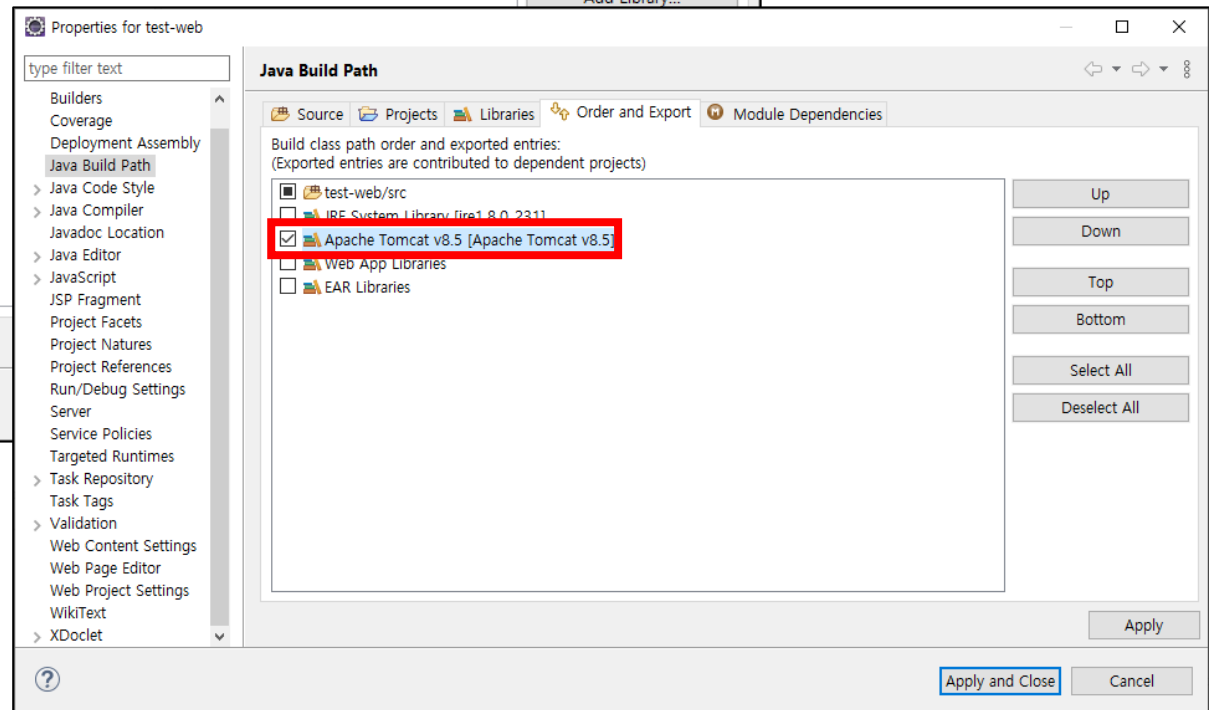
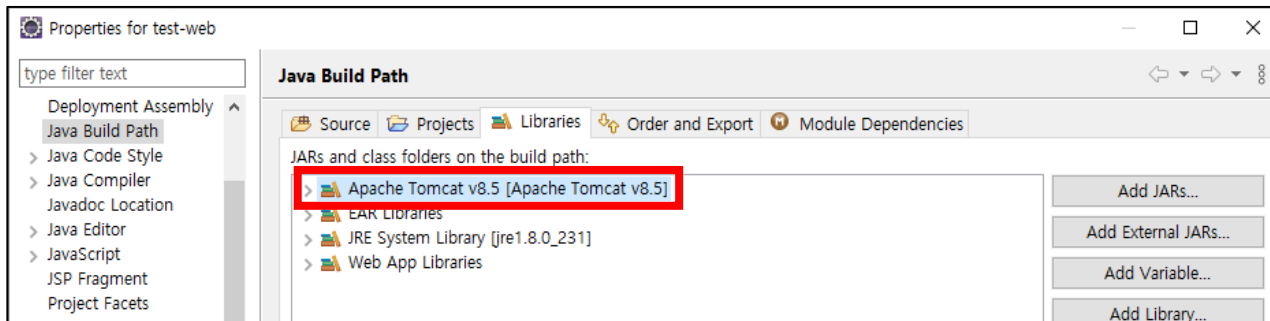
16) 체크 박스 클릭 후 "Finish" 클릭



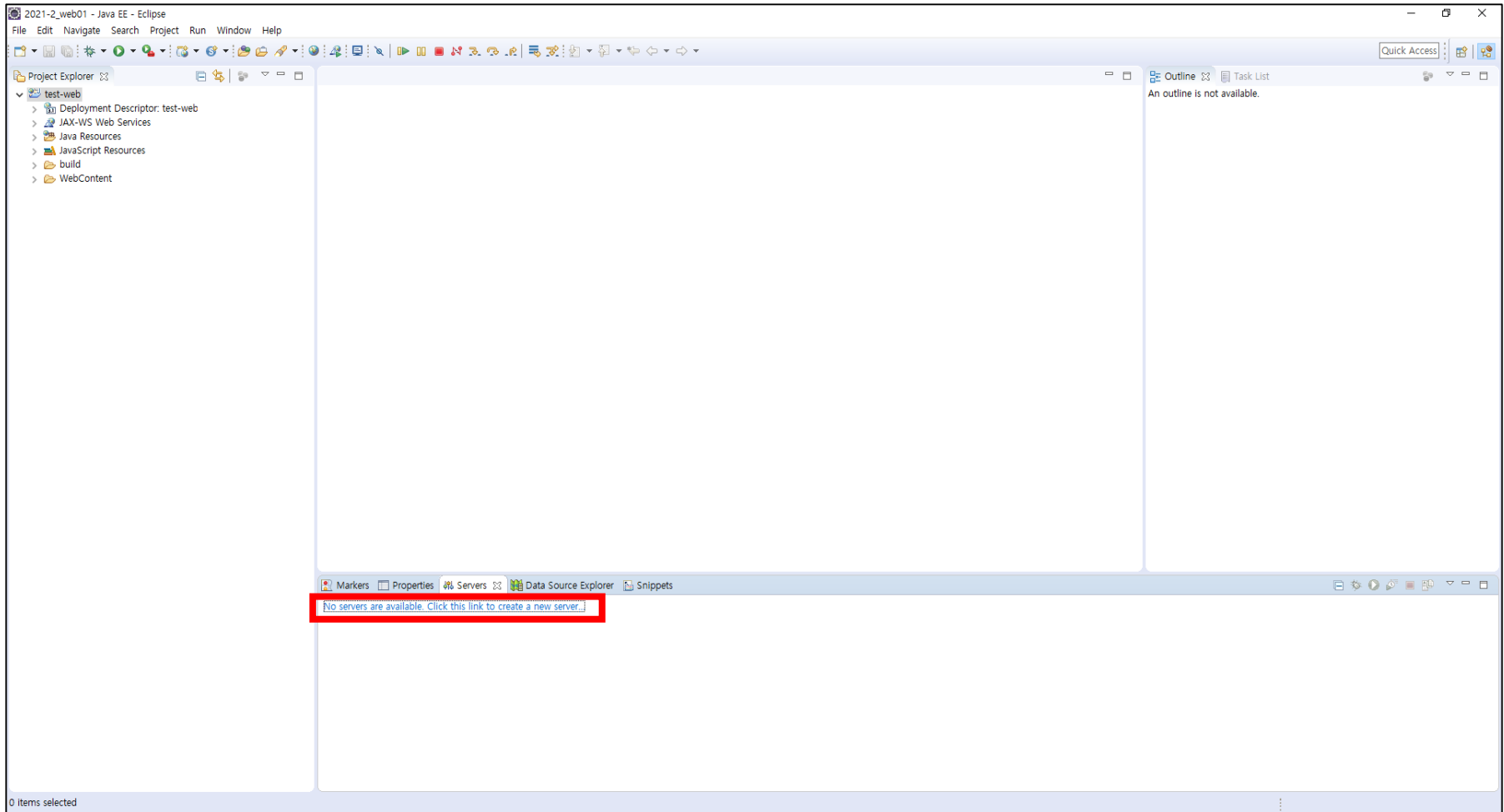
17) 생성된 프로젝트 우 클릭 → “Build Path” → “Configure Build Path” 클릭



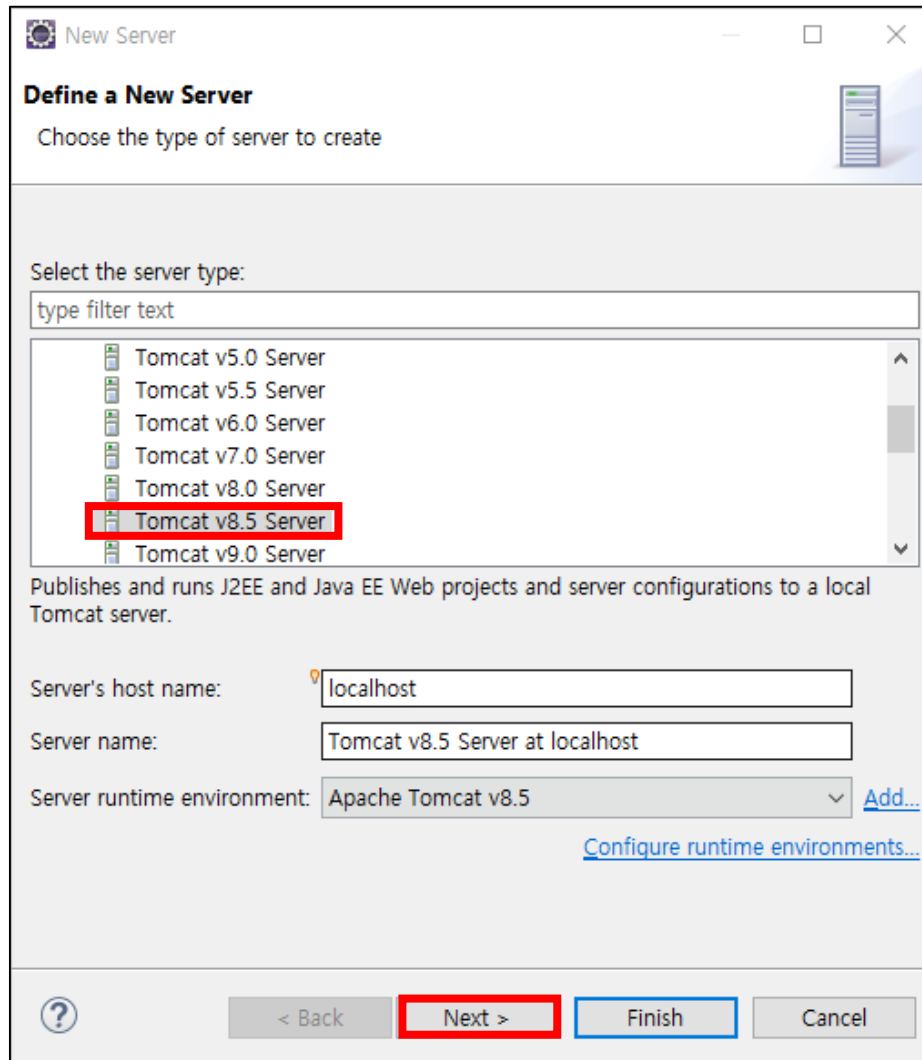
18) “Java Build Path”의 “Libraries”에서 Tomcat 확인 및 “Order and Export”에서 Tomcat의 체크박스 확인 후 “Apply and Close”클릭



19) 서버 생성을 위해 화면 하단의 “Server” 탭의 링크 클릭

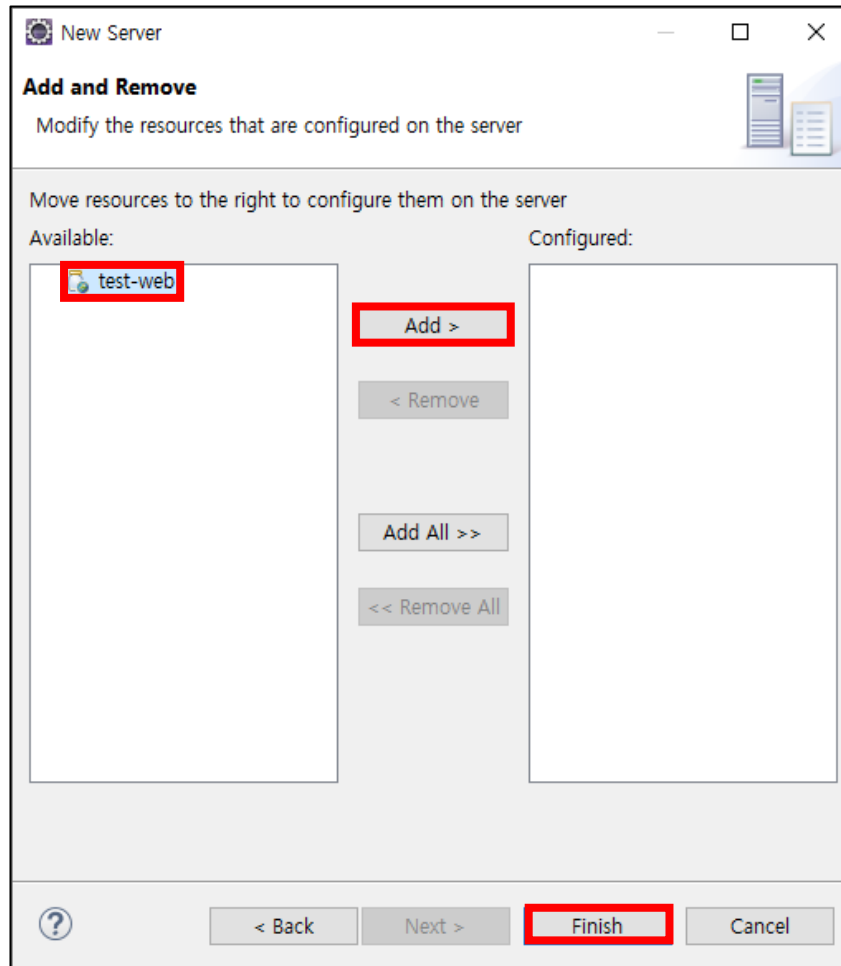


20) 설치한 Tomcat 버전 선택 후 “Next” 클릭



21) 생성된 프로젝트 선택 후 “Add”를 클릭하여 추가

22) “Finish’ 클릭

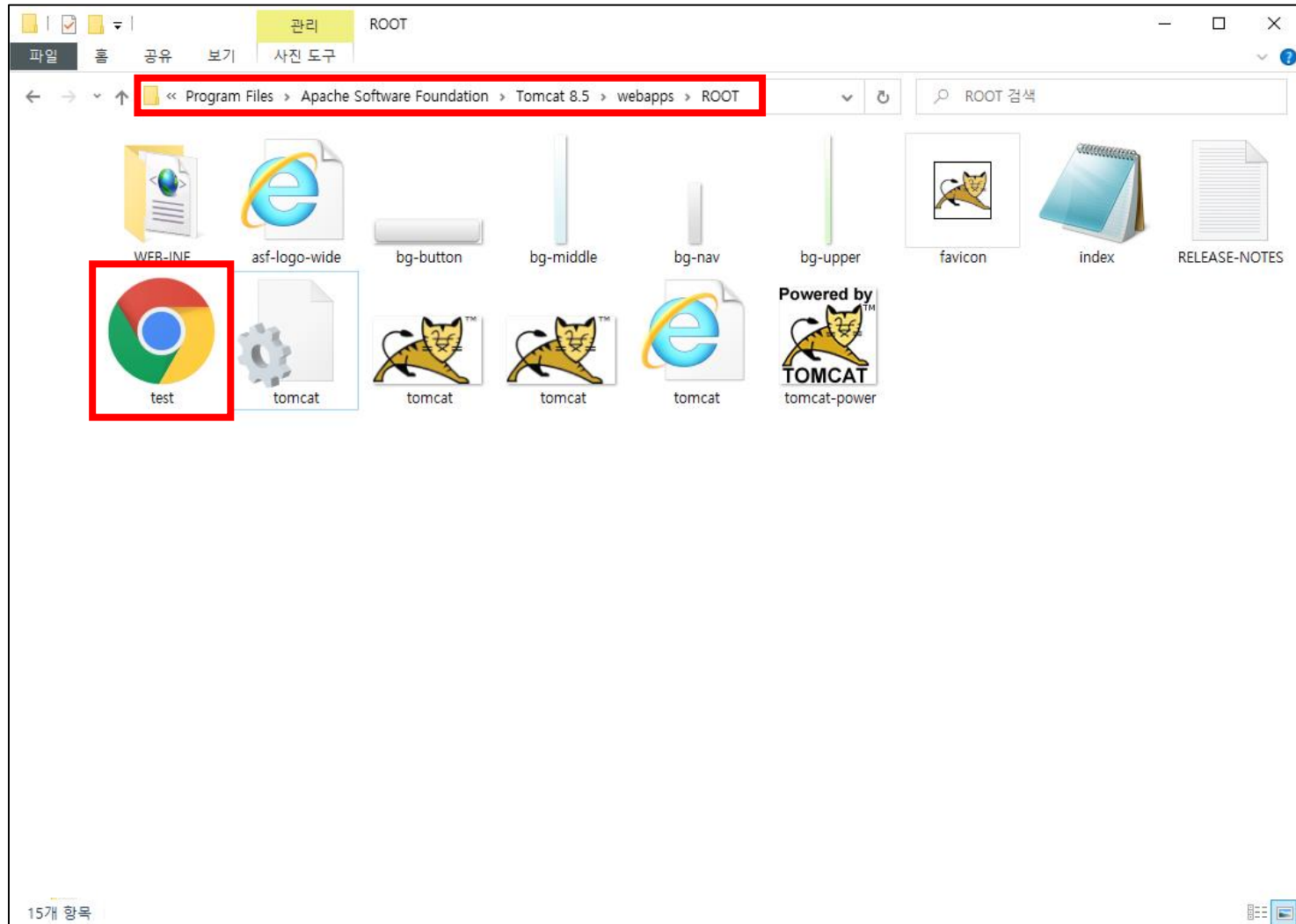


1) "test.html" 파일 생성

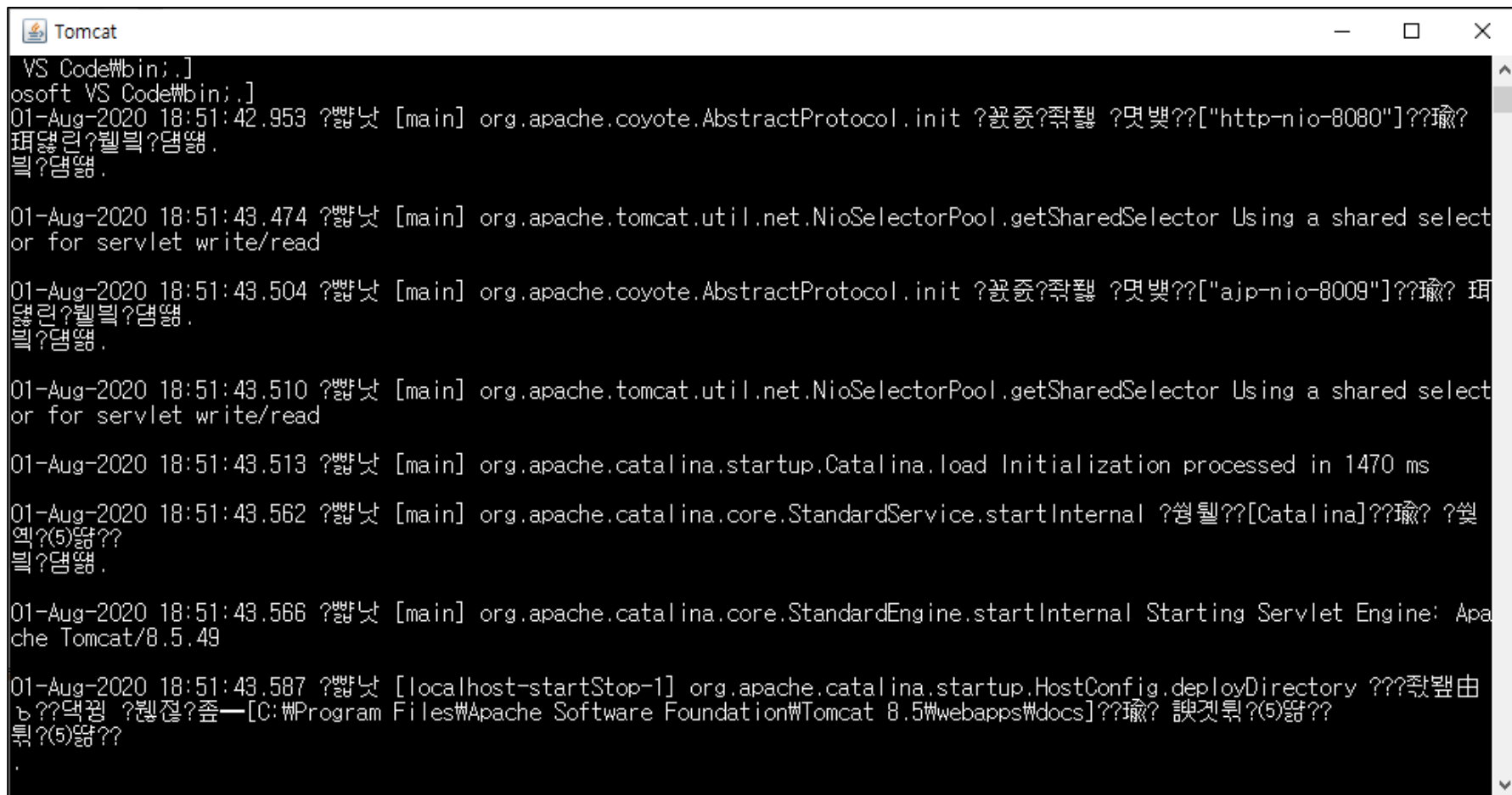
<test.html>

```
<html>
<head>
    <meta http-equiv="Content-Type" content="text/html; charset=utf-8">
    <title>테스트</title>
</head>
<body>
테스트
</body>
</html>
```

2) Tomcat 설치 폴더 → webapps → ROOT로 생성한 “test.html” 이동

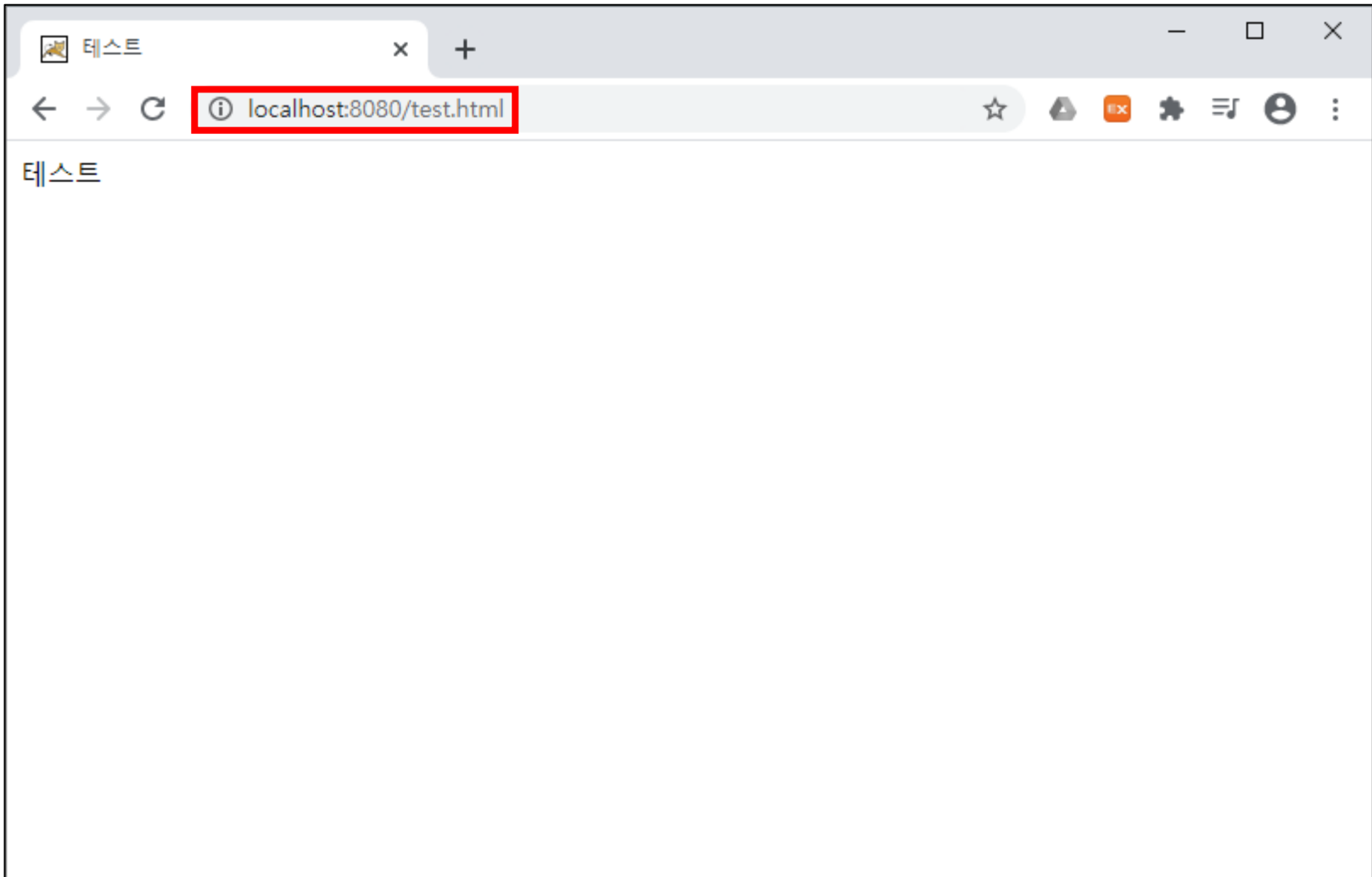


3) Tomcat 실행



```
VS Code\bin;.]  
osoft VS Code\bin;.]  
01-Aug-2020 18:51:42.953 ?뽕뽕 [main] org.apache.coyote.AbstractProtocol.init ?꿇꿇?쥬쥬 ?뽕뽕?["http-nio-8080"]??瑜?  
玊뽕린?뽕뽕?뽕뽕.  
뽕?뽕뽕.  
01-Aug-2020 18:51:43.474 ?뽕뽕 [main] org.apache.tomcat.util.net.NioSelectorPool.getSharedSelector Using a shared select  
or for servlet write/read  
01-Aug-2020 18:51:43.504 ?뽕뽕 [main] org.apache.coyote.AbstractProtocol.init ?꿇꿇?쥬쥬 ?뽕뽕?["ajp-nio-8009"]??瑜? 玊  
뽕린?뽕뽕?뽕뽕.  
뽕?뽕뽕.  
01-Aug-2020 18:51:43.510 ?뽕뽕 [main] org.apache.tomcat.util.net.NioSelectorPool.getSharedSelector Using a shared select  
or for servlet write/read  
01-Aug-2020 18:51:43.513 ?뽕뽕 [main] org.apache.catalina.startup.Catalina.load Initialization processed in 1470 ms  
01-Aug-2020 18:51:43.562 ?뽕뽕 [main] org.apache.catalina.core.StandardService.startInternal ?쥬쥬??[Catalina]??瑜? ?쥬  
쥬?(5)쥬??  
뽕?뽕뽕.  
01-Aug-2020 18:51:43.566 ?뽕뽕 [main] org.apache.catalina.core.StandardEngine.startInternal Starting Servlet Engine: Apa  
che Tomcat/8.5.49  
01-Aug-2020 18:51:43.587 ?뽕뽕 [localhost-startStop-1] org.apache.catalina.startup.HostConfig.deployDirectory ???쥬쥬由  
? ??뽕쥬 ?쥬쥬?쥬—[C:\Program Files\Apache Software Foundation\Tomcat 8.5\webapps\docs]??瑜? 玊쥬쥬?(5)쥬??  
쥬?(5)쥬??  
.
```

4) “http://localhost:8080/test.html”을 입력하여 “test.html” 파일 실행



Tomcat에서 jQuery를 이용한 Ajax 예제 실행 (1/3) 46/60

1) "ajax.html" 파일 및 testfile.txt 파일 생성

<ajax.html>

```
<!DOCTYPE html>
<html>
<head>
    <script src="http://code.jquery.com/jquery-1.10.1.js"> </script>
    <script>
        $(document).ready(function () {
            $("button").click(function () {
                $("#target").load("testfile1.txt");
            });
        });
    </script>
</head>
<body>
    <div id="target" style="width: 300px; height: 60px; border: solid 1px black">
    </div>
    <button>Get Data</button>
</body>
</html>
```

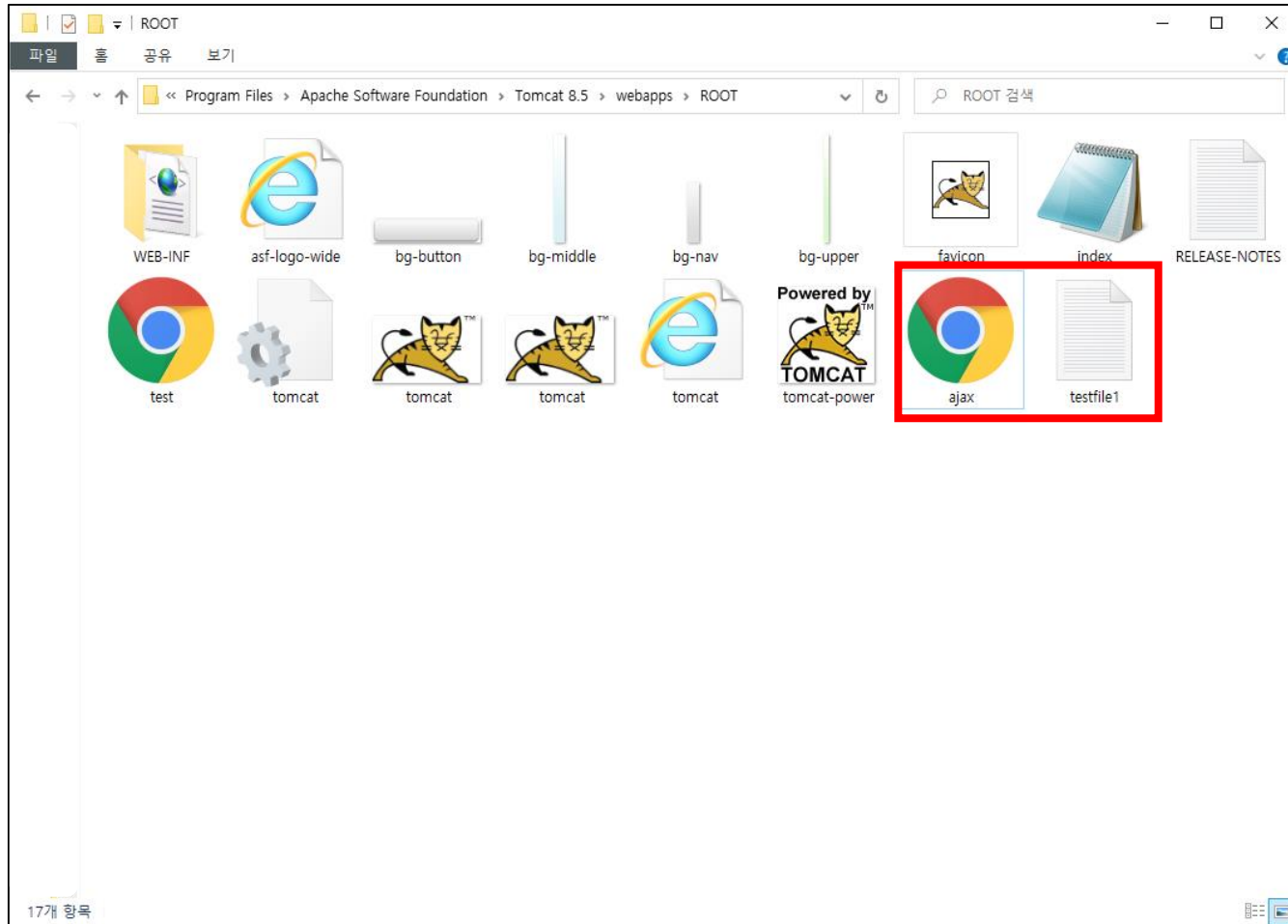
<testfile1.txt>

Ajax는 Asynchronous JavaScript and XML의 약자입니다.
Ajax는 동적인 대화형 웹페이지를 만듭니다.

Tomcat에서 jQuery를 이용한 Ajax 예제 실행 (2/3) 47/60

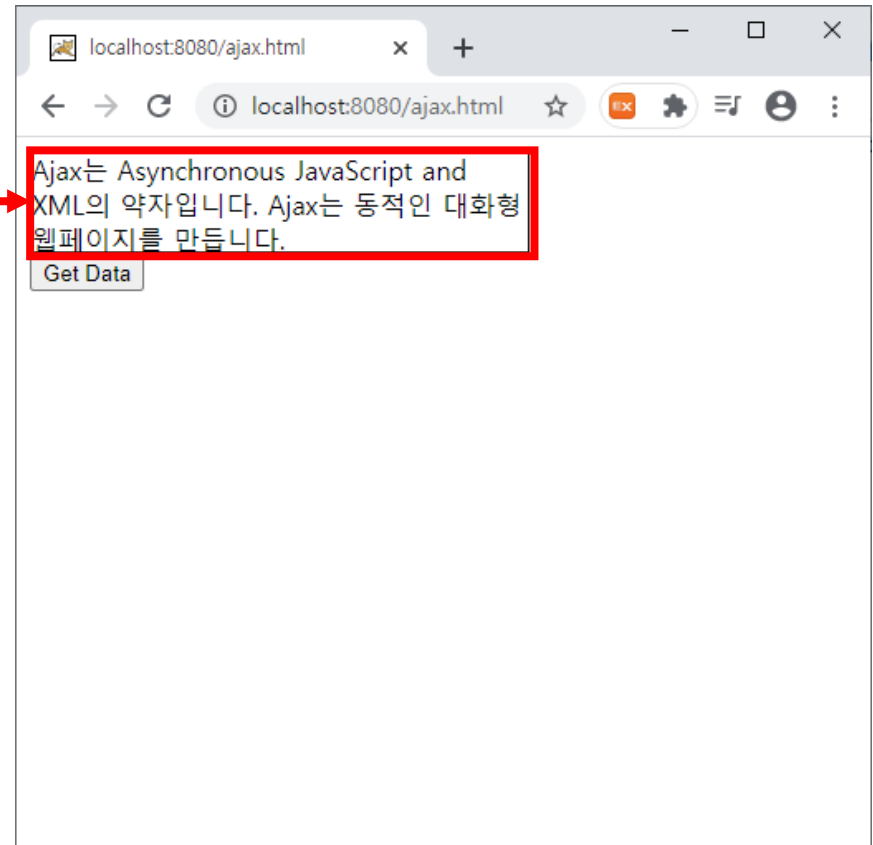
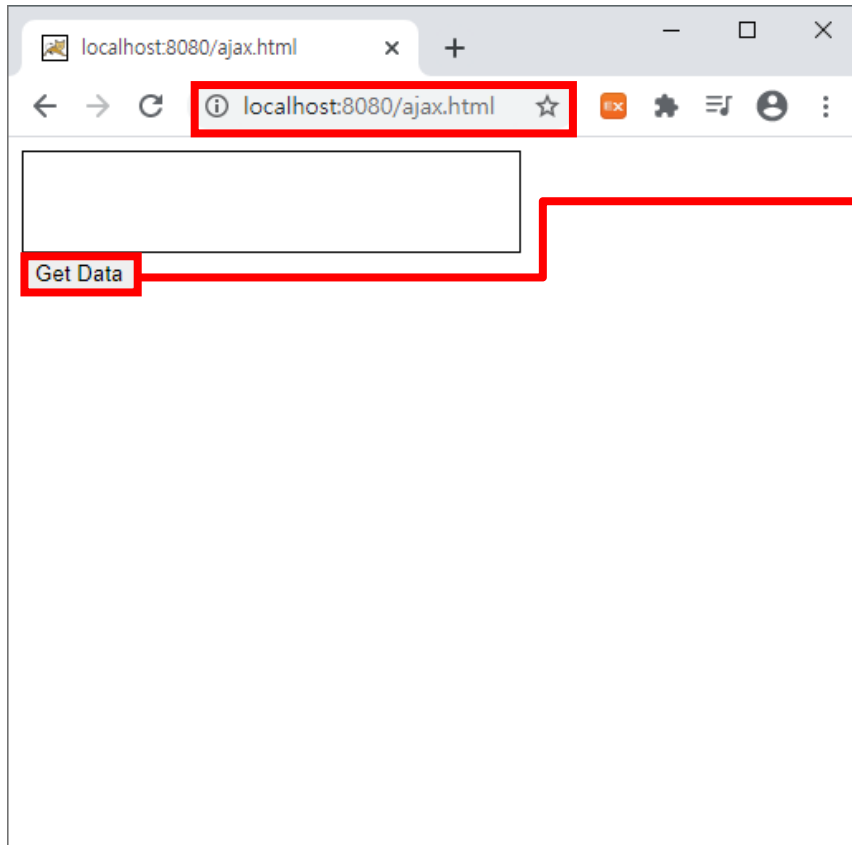
2) Tomcat 설치 폴더 → webapps → ROOT로 생성한 "ajax.html"과 "testfile1.txt" 이동

3) Tomcat 실행



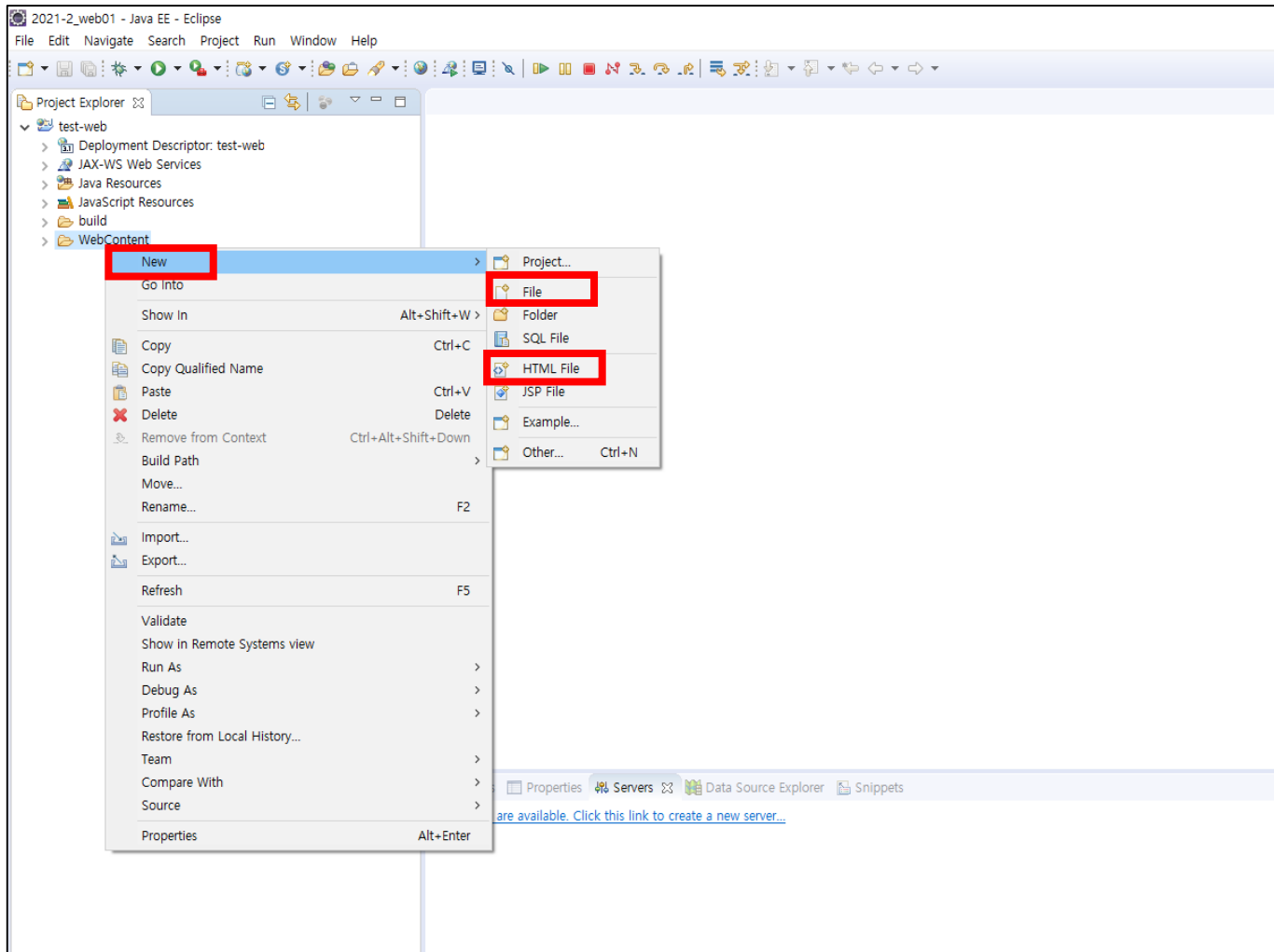
Tomcat에서 jQuery를 이용한 Ajax 예제 실행 (3/3) 48/60

4) “http://localhost:8080/ajax.html”을 입력하여 “ajax.html” 파일 실행



Eclipse에서 jQuery를 이용한 Ajax 예제 실행(1/6) 49/60

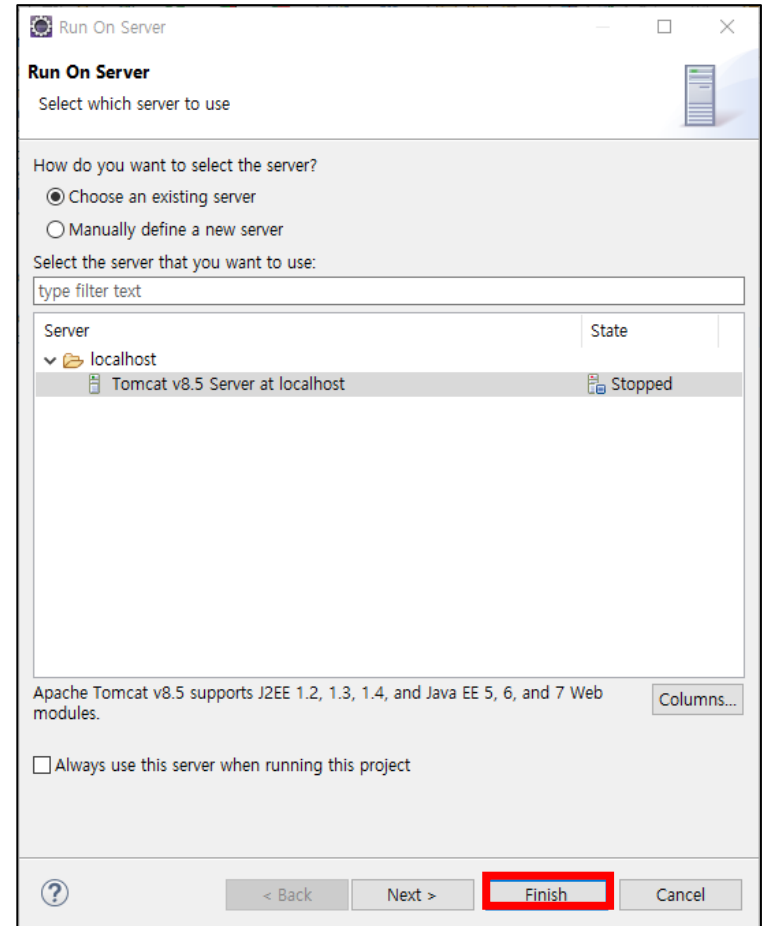
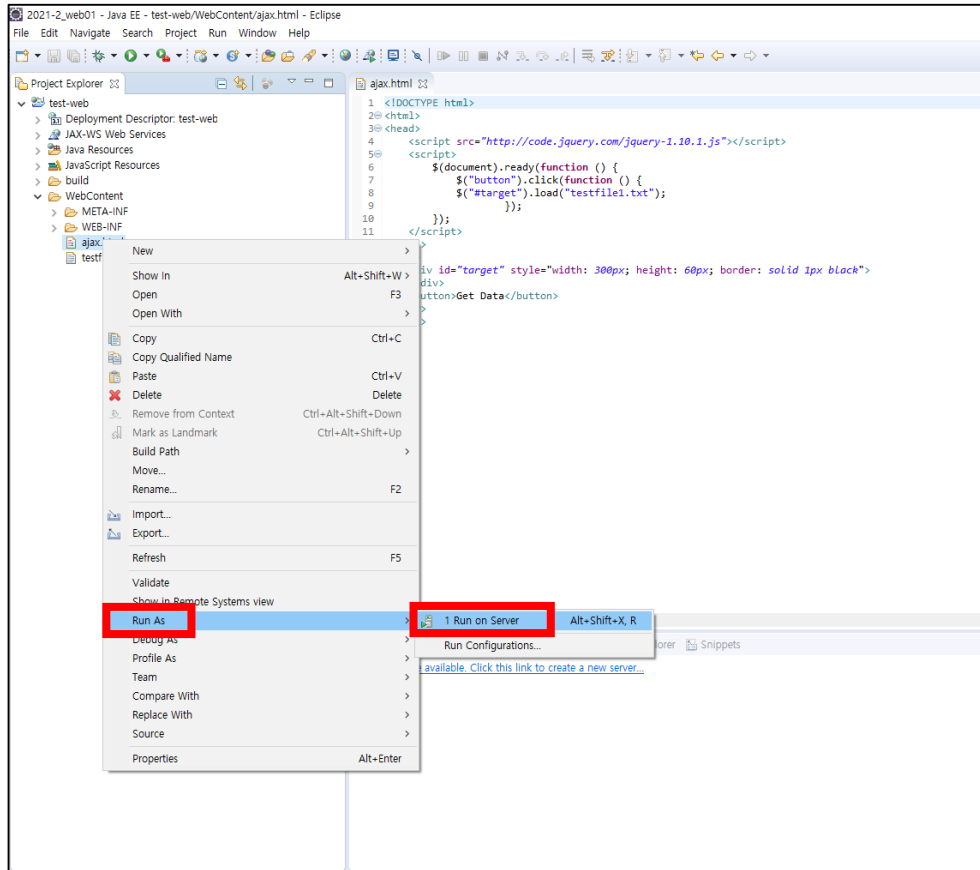
1) “WebContent” 우 클릭 → “New” → “File”과 “HTML File”을 클릭하여 “testfile1.txt”와 “ajax.html” 생성



Eclipse에서 jQuery를 이용한 Ajax 예제 실행(2/6) 50/60

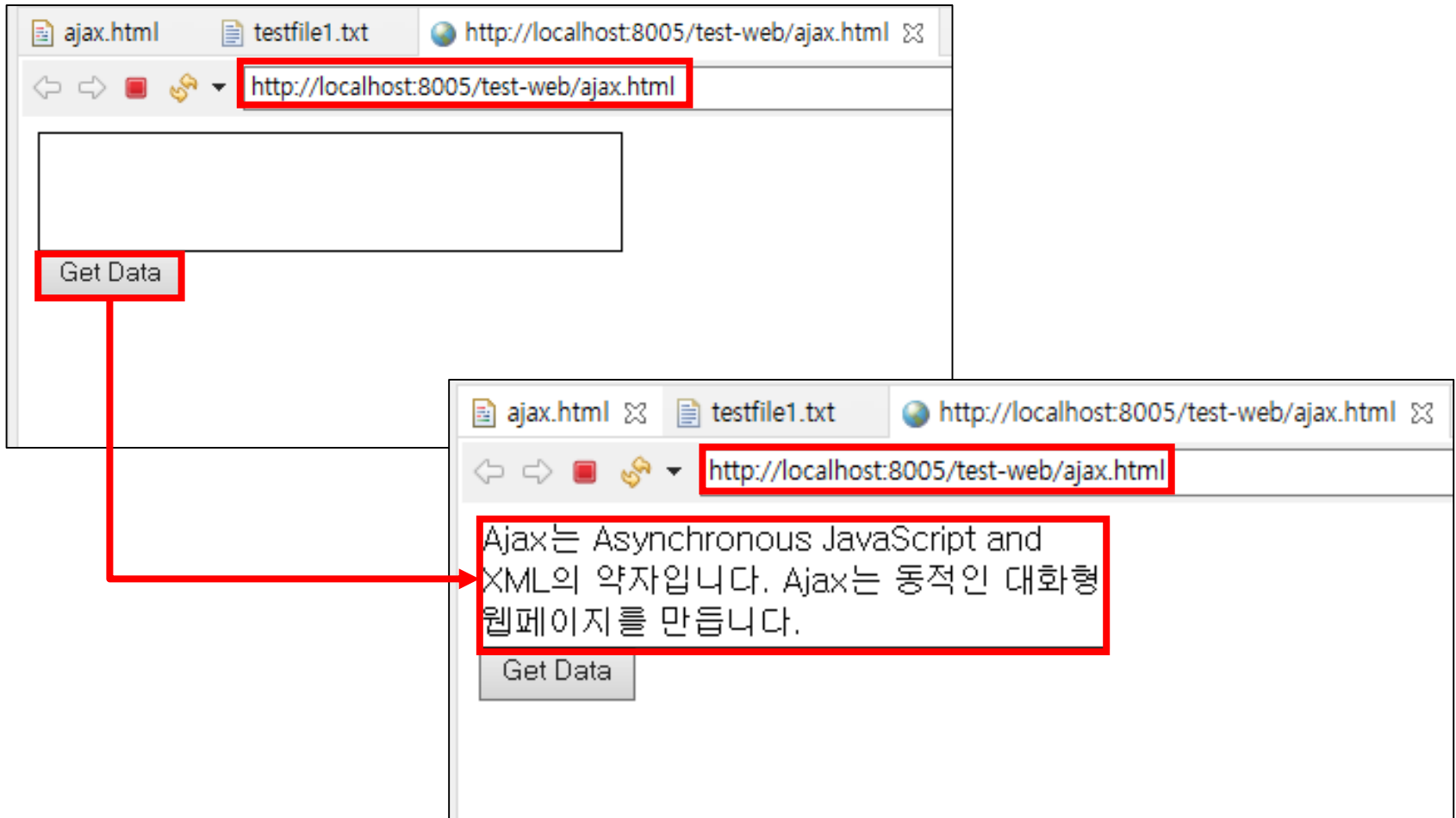
2) "ajax.html" 실행을 위해 해당 파일 우 클릭 → "Run As" → "Run on Server"클릭

3) "Finish" 클릭



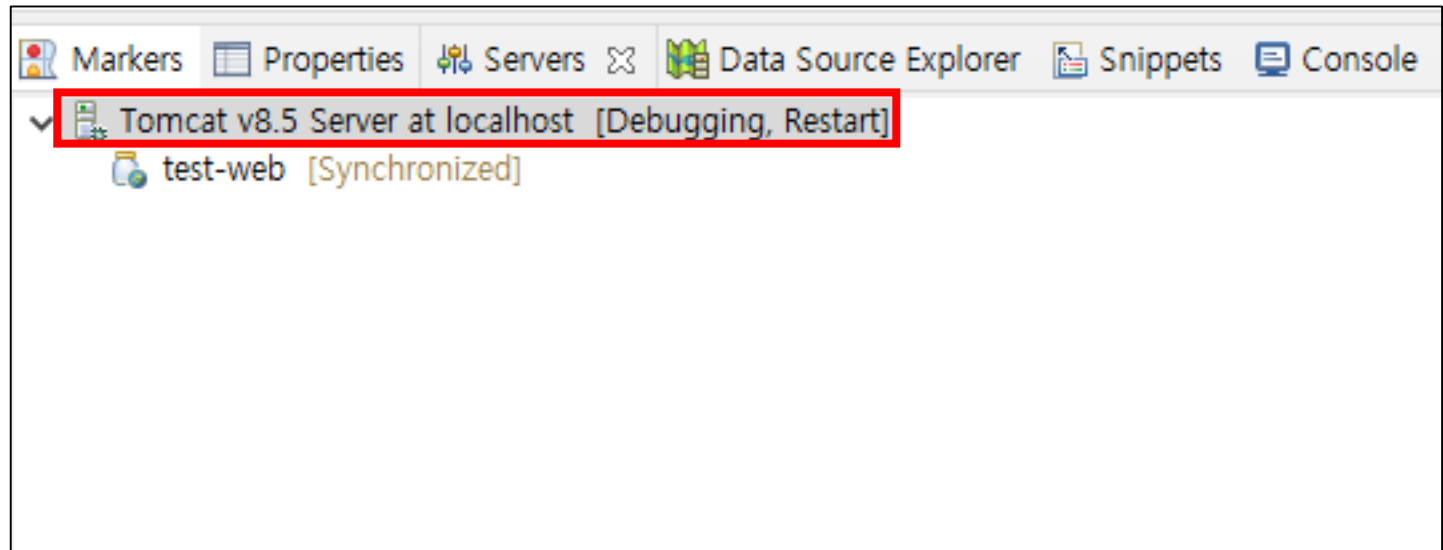
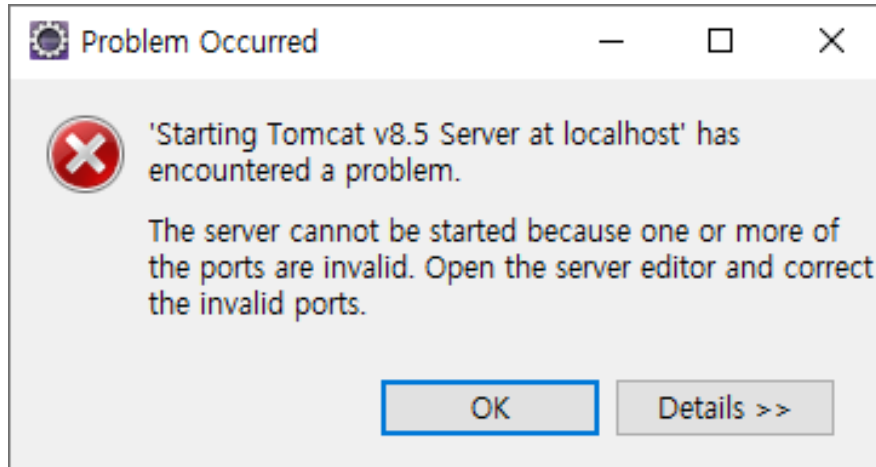
Eclipse에서 jQuery를 이용한 Ajax 예제 실행(3/6) 51/60

4) "ajax.html" 실행 확인



Eclipse에서 jQuery를 이용한 Ajax 예제 실행(4/6) 52/60

5) 아래와 같은 오류가 발생할 경우 "OK" 클릭 후, 하단에 표시된 부분을 더블 클릭



Eclipse에서 jQuery를 이용한 Ajax 예제 실행(5/6) 53/60

6) 아래와 같이 포트 번호를 수정

The screenshot shows the Eclipse IDE interface with the 'Tomcat v8.5 Server at localhost' configuration page open. The 'Ports' section is highlighted with a red box, showing the 'Port Number' column with values 8081 and 8005. The 'Server Locations' section is also visible, showing the 'Server path' and 'Deploy path'.

Overview

General Information
Specify the host name and other common settings.

Server name: Tomcat v8.5 Server at localhost
Host name: localhost
Runtime Environment: Apache Tomcat v8.5
Configuration path: /Servers/Tomcat v8.5 Server at localhost/Browse...
Open launch configuration

Server Locations
Specify the server path (i.e. catalina base) and deploy path. Server must be published with no modules present to make changes.

☒ Use workspace metadata (does not modify Tomcat installation)
☐ Use Tomcat installation (takes control of Tomcat installation)
☐ Use custom location (does not modify Tomcat installation)

Server path: .metadata\plugins\org.eclipse.wst.server.core\Browse...
Set deploy path to the default value (currently set)
Deploy path: wtpwebapps Browse...

Server Options
Enter settings for the server.

☐ Serve modules without publishing
☐ Publish module contexts to separate XML files
☒ Modules auto reload by default
☐ Enable security
☐ Enable Tomcat debug logging (not supported by this Tomcat version)

Ports
Modify the server ports.

Port Name	Port Number
Tomcat admin port	8081
HTTP/1.1	8005

MIME Mappings

Overview | Modules

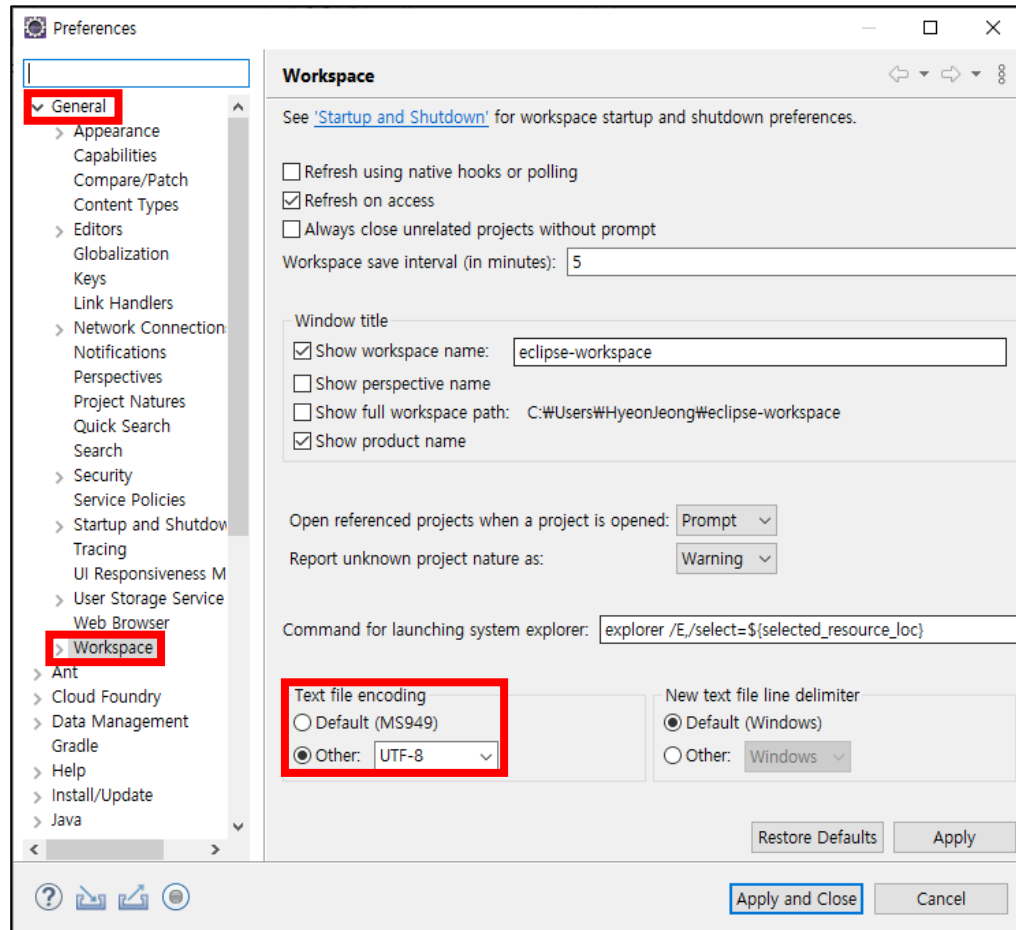
Markers | Properties | Servers | Data Source Explorer | Snippets | Console

> Tomcat v8.5 Server at localhost [Started, Restart]

Eclipse에서 jQuery를 이용한 Ajax 예제 실행(6/6) 54/60

7) 한글이 정상 출력이 되지 않는 경우, 상단 메뉴 바에서 “Window” → “Preferences” → “General” → “Workspace” 클릭

8) “Text file encoding”의 “Other”에서 “UTF-8” 선택 후 “Apply and Close” 클릭



```
<html>
<head>
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.2.1/jquery.min.js"></script>
  <script>
    $(function() {
      $.ajax({
        type: "POST", // 데이터 전달 타입
        url: " check ", // 서버에 전송할 URL 주소
        data: { // 전달할 데이터 형식
          USER_ID: obj },

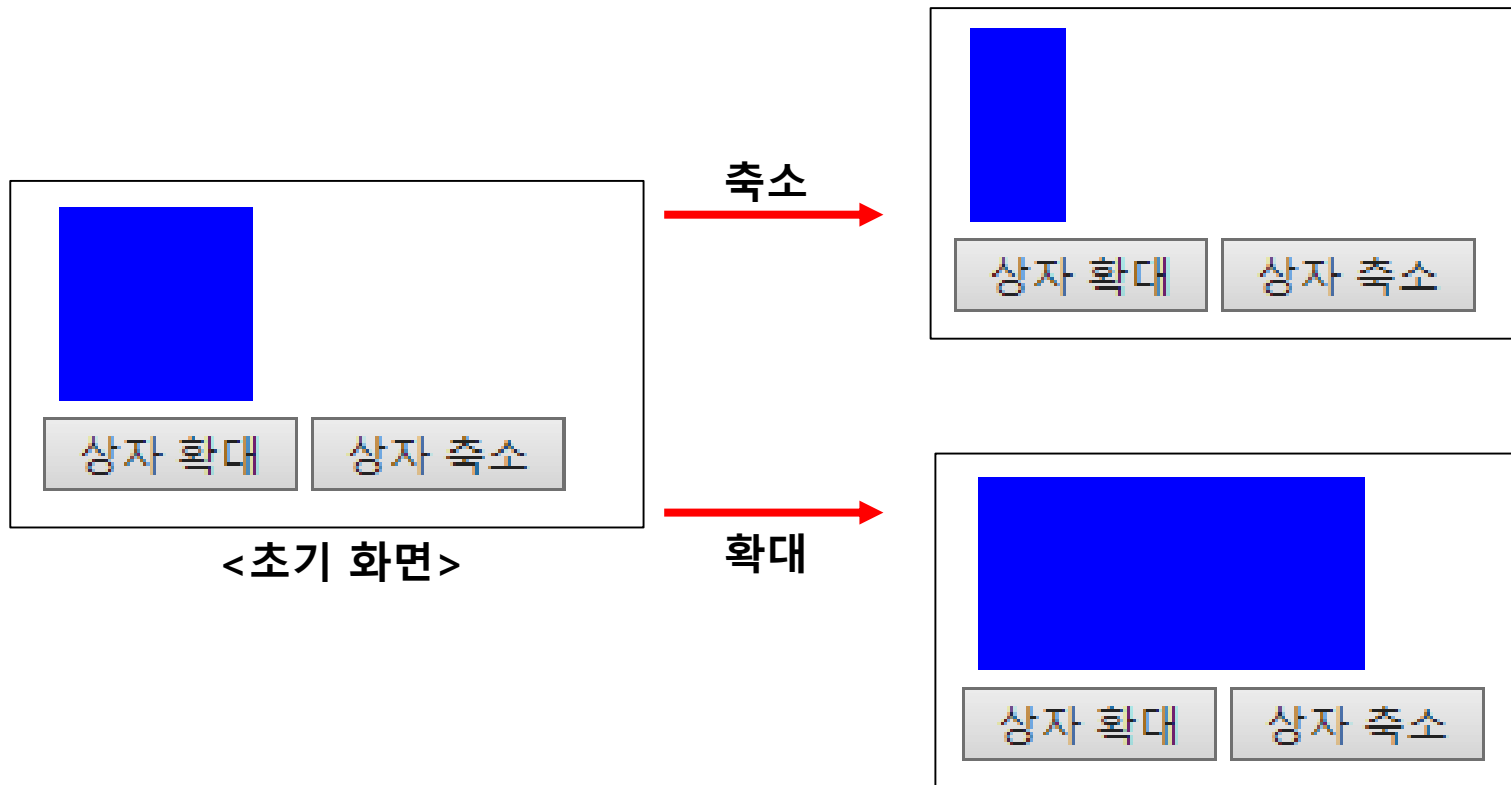
        dataType: "json", // 요청 받아올 데이터 형식
        success: function(data) { // Ajax 통신이 정상적으로 이루어지면 함수를 실행 },

        error: function(xhr, status, error) { // 통신에 문제가 발생했을 때 함수를 실행
          alert("errorWnxhr : " + xhr + ", status : " + status + ", error : " + error); }
      });
    });
  </script>
</head>
<body> </body>
</html>
```


실습 과제 <실험·실습 제출자료> (1/4)

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Q1. jQuery 이벤트를 이용하여 “상자 확대” 버튼과 “상자 축소” 버튼을 누르면 아래의 그림과 같이 작동하도록 코드를 작성하시오.

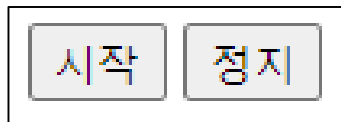


실습 과제 <실험·실습 제출자료 (2/4)>

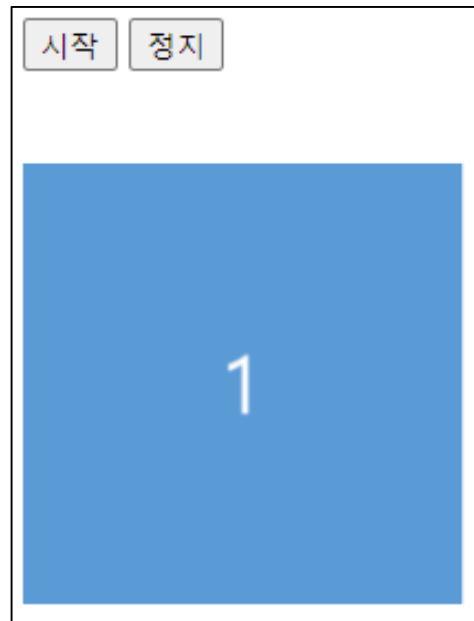
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Q2. jQuery의 메소드 체인을 이용하여 아래의 그림과 같이 작동하도록 코드를 작성하시오.

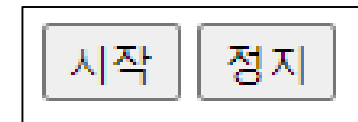
- 1) “시작”버튼을 누르면 두 가지 이상의 애니메이션 효과가 동작되며 그림이 나타남
- 2) “정지”버튼을 누르면 그림이 사라짐



<초기 화면>



<시작 버튼 작동 후 화면>



<정지 버튼 작동 후 화면>

Q3. attr()메소드를 이용하여 아래의 조건에 맞게 코드를 작성하시오.

- ① “URL 변경”버튼 클릭 전 → “페이지 이동”버튼 클릭 시, “www.dongguk.edu”로 이동
- ② “URL 변경”버튼 클릭 후 → “페이지 이동”버튼 클릭 시, “lib.dongguk.edu”로 이동
- ③ “사진 변경” 버튼 클릭 시, 사진 변경



<초기 화면>

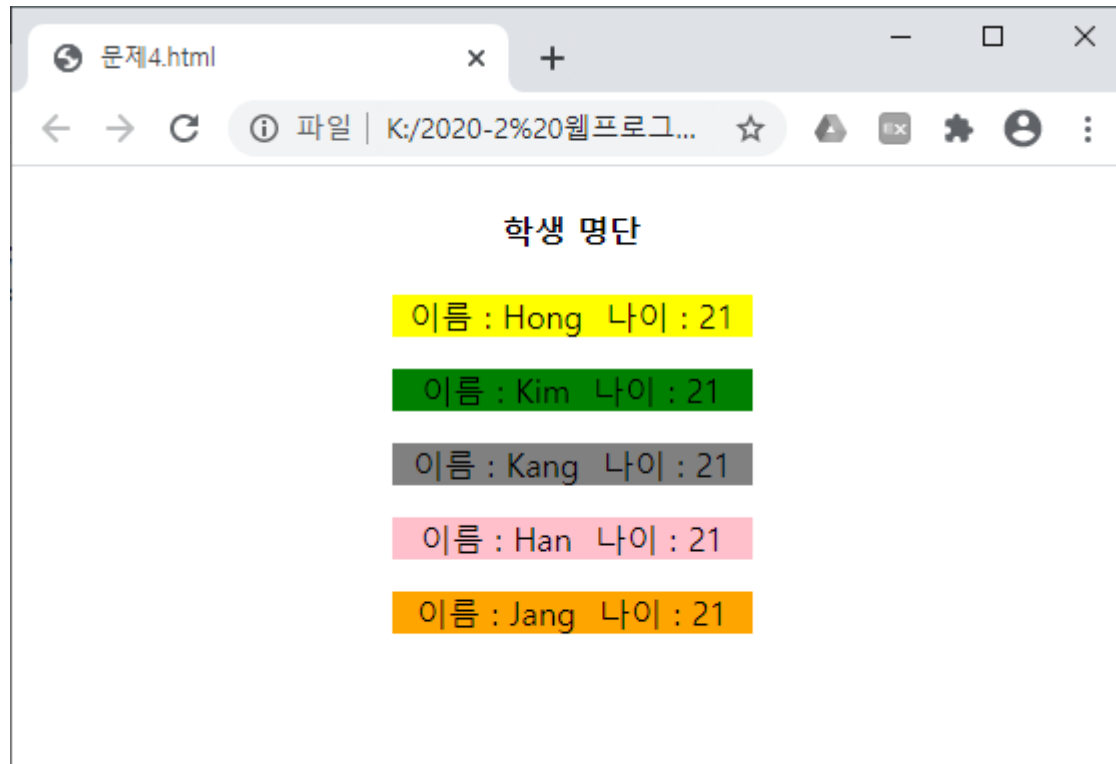


<사진 변경 버튼 클릭 후 화면>

실습 과제 <실험·실습 제출자료> (4/4)

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Q4. 아래의 화면과 같이 학생 명단이 출력되도록 JSON 코드를 작성하시오.



- 제출 방식 : E-Class를 통하여 제출
- 제출 내용 : HTML File, 이미지
- 제출 형식 : 학번_이름_주차
 - Ex) 학번_홍길동_5주차.zip
- 제출 기한 : 10월 2일(토) 오후 23시 59분
 - 기한 엄수 지각 제출 불허