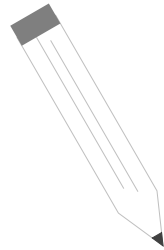
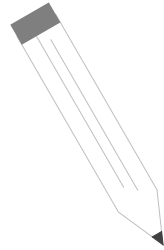




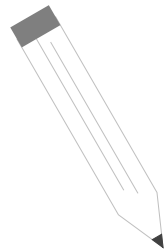
컴퓨터 공학과 201111341 김성민
201111345 김종우
201211356 송원종



Eclipse



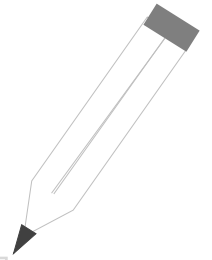
Junit



빌드환경

- ◆ Eclipse 란?
- ◆ JDK 설치
- ◆ Eclipse 설치

Eclipse 란?



❖ 소개

- JAVA 등 다양한 언어를 개발하기 위한 통합 IDE

❖ 기능

- Code Edit / Compile / Debug
- Unit Test

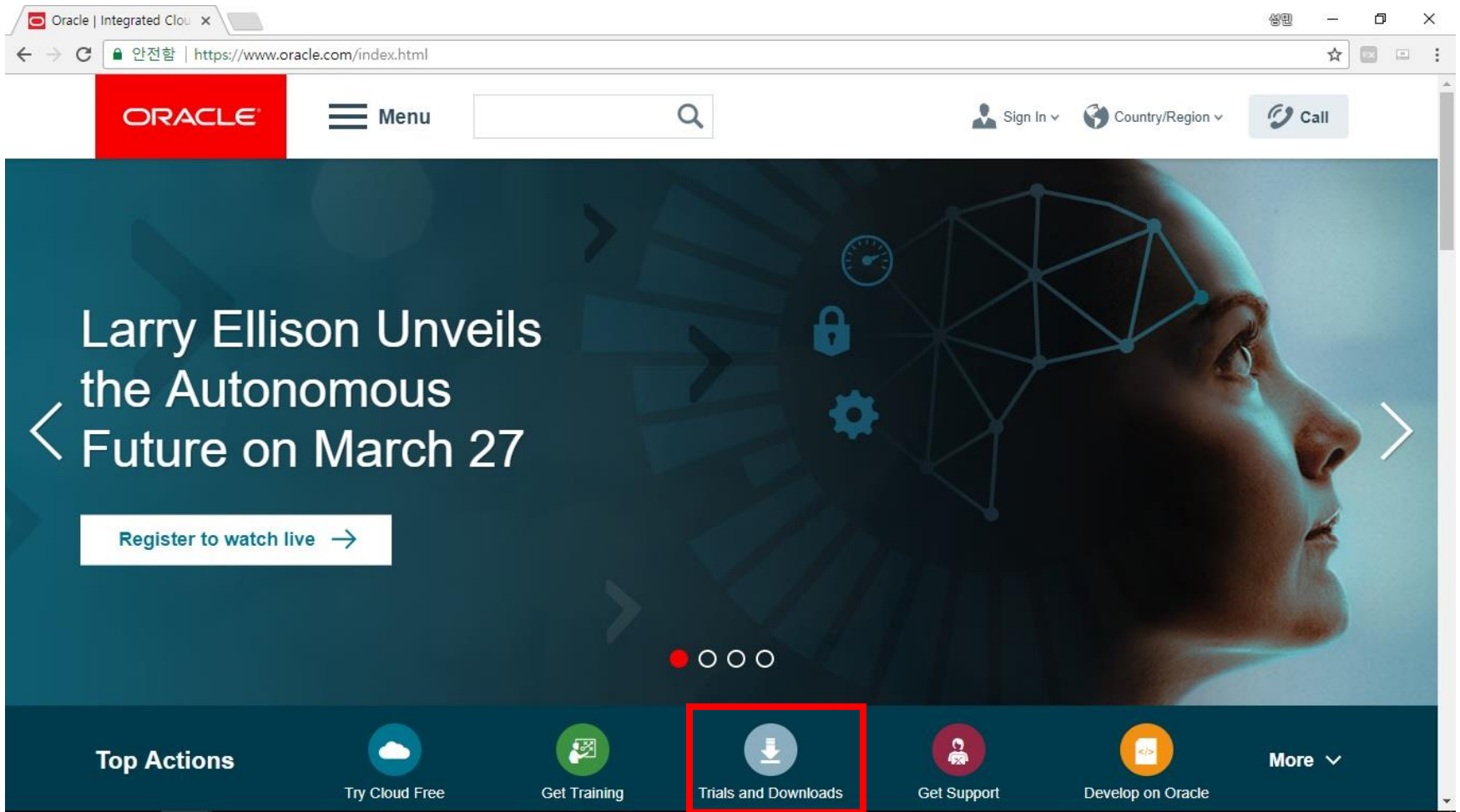
❖ 특징

- 다양한 Plugin을 통한 확장
- Open Source

JDK 설치

JDK 설치

http://www.oracle.com



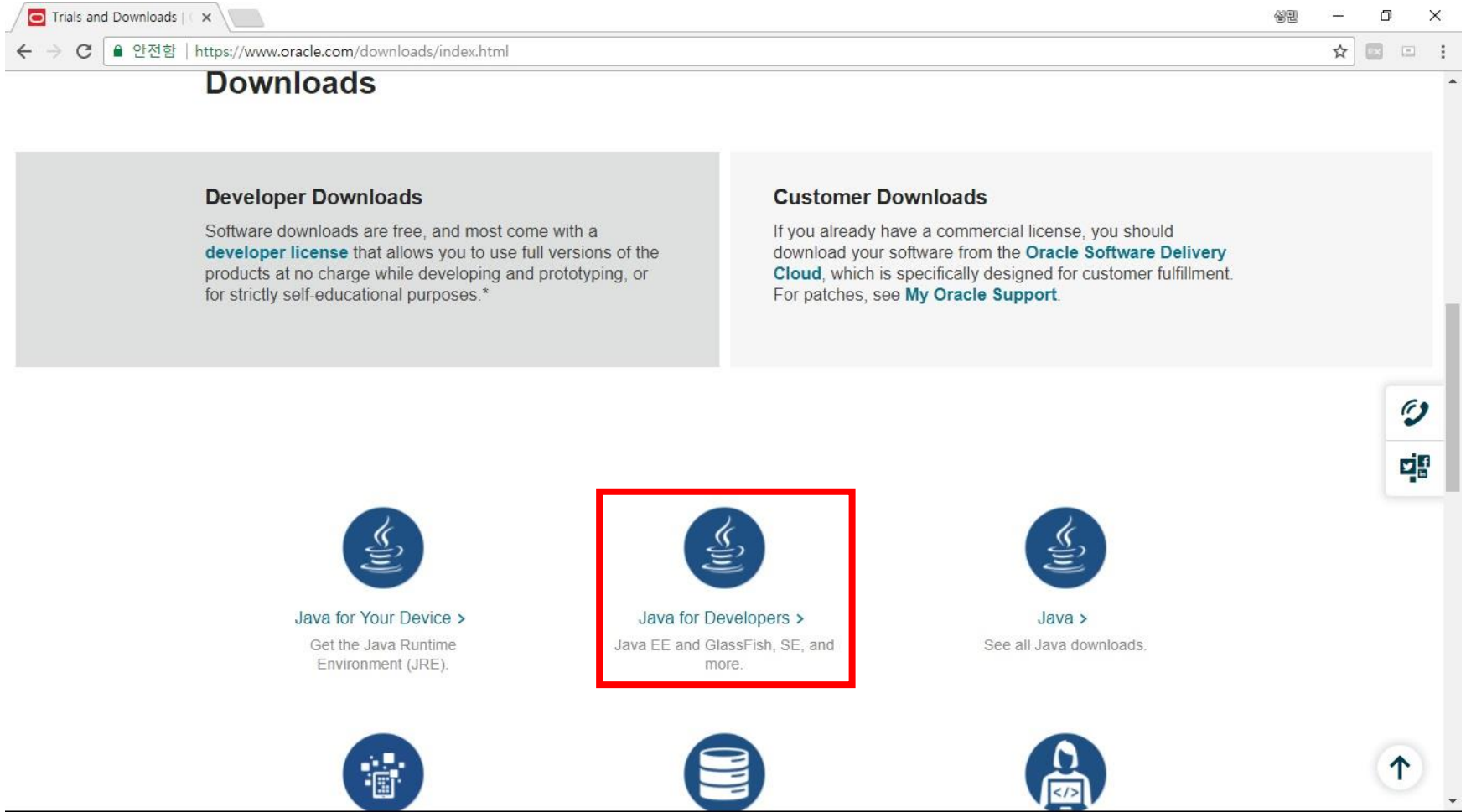
JDK 설치

Oracle Trials and Downloads
Engineered for cloud.

Trials

- Experience Oracle Cloud**
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[See all Oracle Cloud trials and demos](#)
- Try Oracle Cloud**
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JDK 설치



JDK 설치

Oracle Technology Network / Java / Java SE / Downloads

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Java SE Downloads

Java Platform (JDK) 9

NetBeans with JDK 8

Java Platform, Standard Edition

Java SE 9.0.4
Java SE 9.0.4 includes important bug fixes. Oracle strongly recommends that all Java SE 9 users upgrade to this release.
[Learn more](#)

- Installation Instructions
- Release Notes
- Oracle License
- Java SE Licensing Information User Manual
 - Includes Third Party Licenses
- Certified System Configurations
- Readme

Which Java package do I need?

- Software Developers: JDK (Java SE Development Kit)** For Java Developers. Includes a

JDK DOWNLOAD

Server JRE DOWNLOAD

JRE DOWNLOAD

Java SDKs and Tools

- Java SE
- Java EE and Glassfish
- Java ME
- Java Card
- NetBeans IDE
- Java Mission Control

Java Resources

- Java APIs
- Technical Articles
- Demos and Videos
- Forums
- Java Magazine
- Developer Training
- Tutorials
- Java.com

JDK 설치

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Overview Downloads Documentation Community Technologies Training

Java SE Development Kit 9 Downloads

Thank you for downloading this release of the Java™ Platform, Standard Edition Development Kit (JDK™). The JDK is a development environment for building applications, and components using the Java programming language.

The JDK includes tools useful for developing and testing programs written in the Java programming language and running on the Java platform.

See also:

- Java Developer Newsletter: From your Oracle account, select **Subscriptions**, expand **Technology**, and subscribe to **Java**.
- Java Developer Day hands-on workshops (free) and other events
- Java Magazine

JDK 9.0.4 checksum

Java SE Development Kit 9.0.4

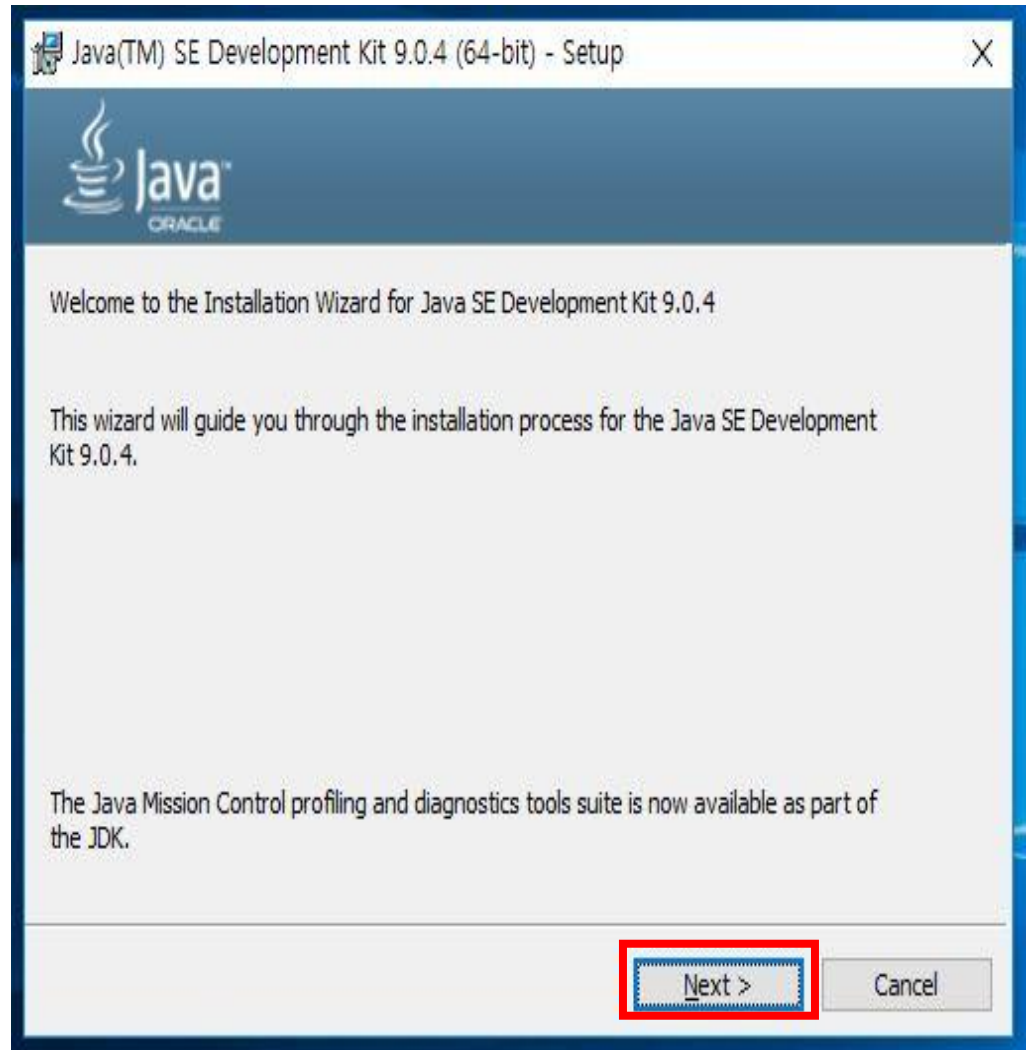
You must accept the Oracle Binary Code License Agreement for Java SE to download this software.

Accept License Agreement Decline License Agreement

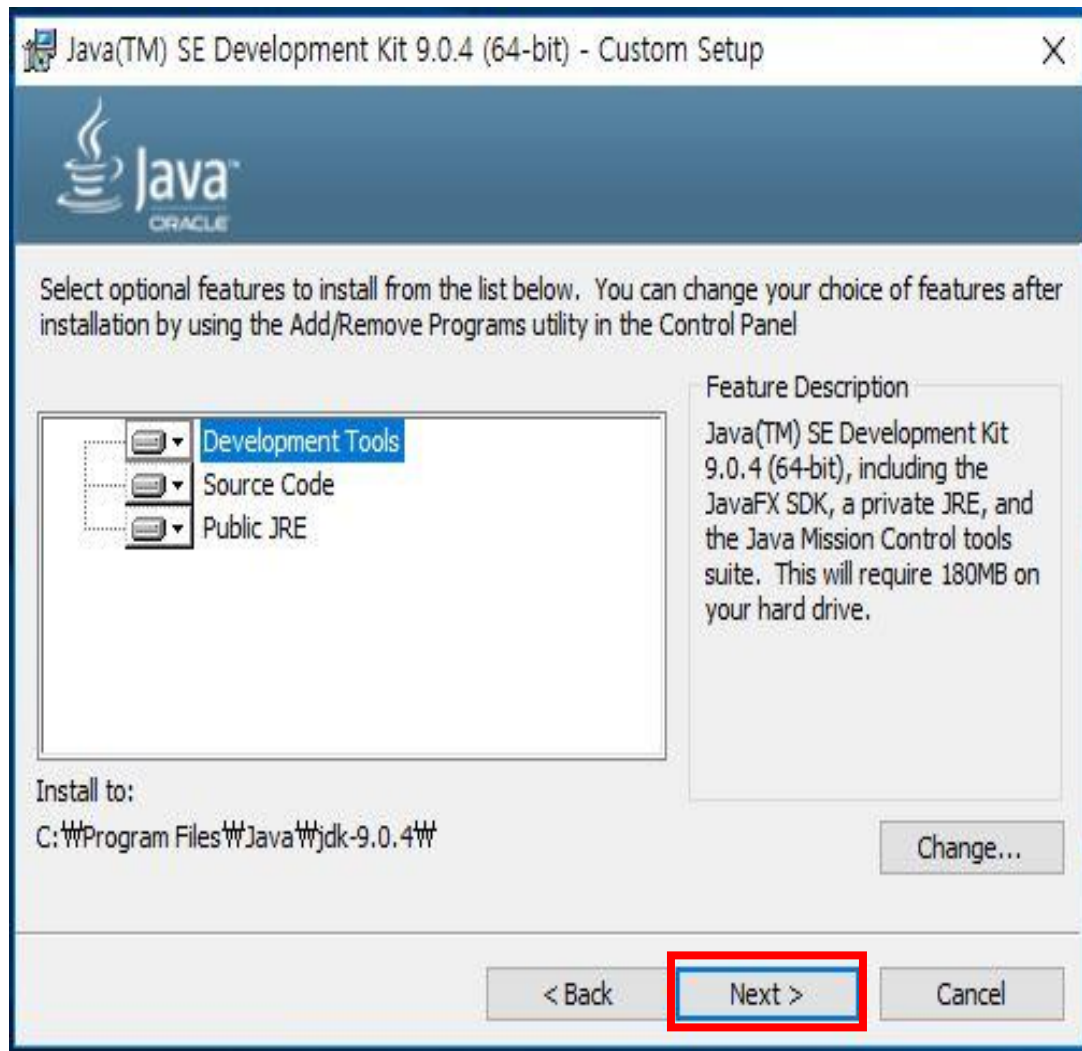
Product/ File Description	File Size	Download
Linux	305.07 MB	jdk-9.0.4_linux-x64_bin.rpm
Linux	338.21 MB	jdk-9.0.4_linux-x64_bin.tar.gz
macOS	382.11 MB	jdk-9.0.4_osx-x64_bin.dmg
Windows	375.56 MB	jdk-9.0.4_windows-x64_bin.exe
Solaris SPARC	206.97 MB	jdk-9.0.4_solaris-sparcv9_bin.tar.gz

E-mail this page Printer View

JDK 설치



JDK 설치



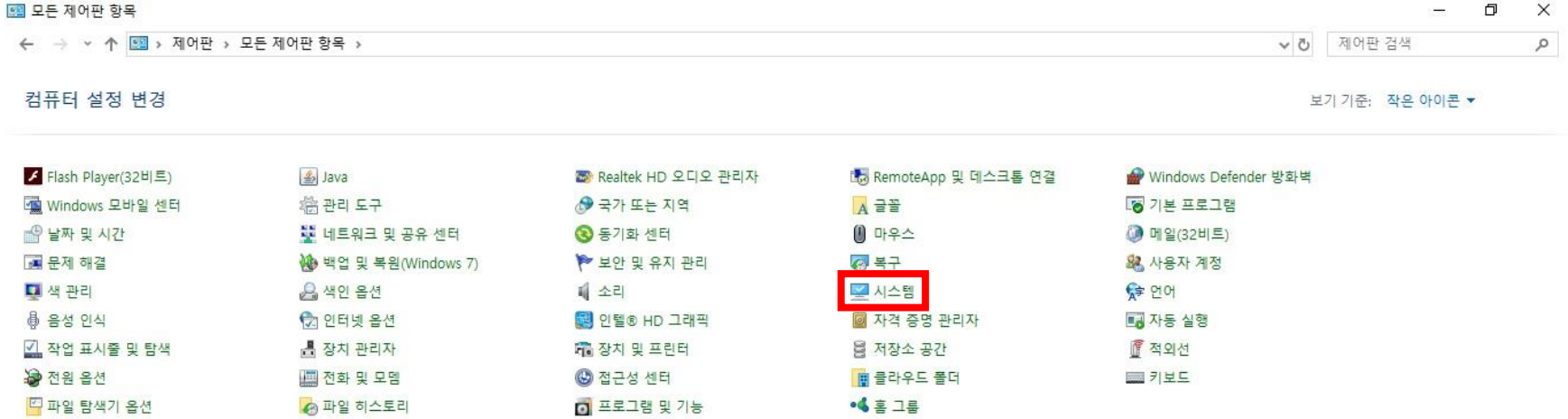
JDK 설치



JDK 설치



환경 변수 설정

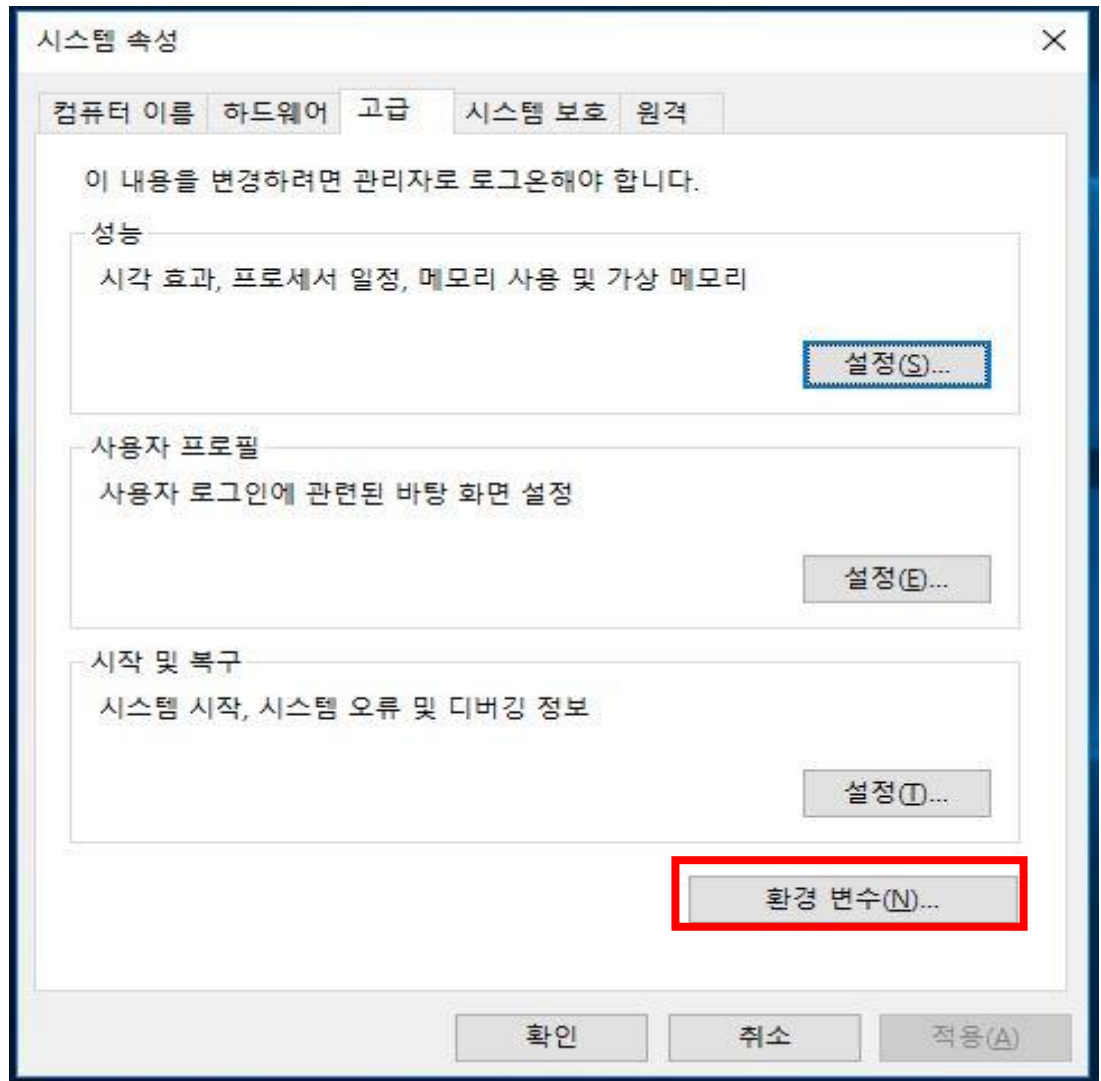


환경 변수 설정

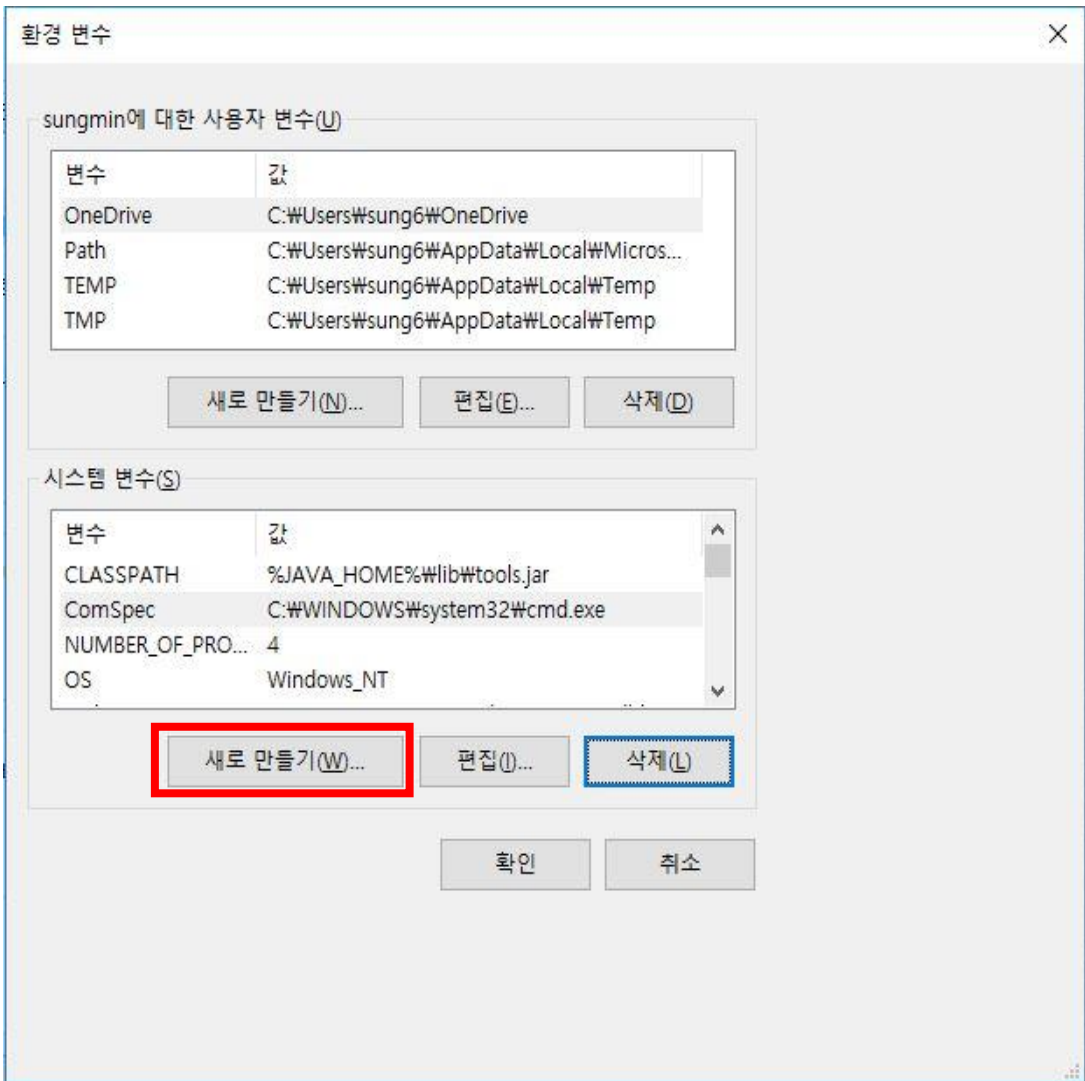
The screenshot shows the Windows 'System' settings page. The left sidebar contains navigation options: '장치 관리자', '원격 설정', '시스템 보호', and '고급 시스템 설정' (highlighted with a red box). The main content area is titled '컴퓨터에 대한 기본 정보 보기' and includes sections for 'Windows 버전' (Windows 10 Home), '시스템' (CPU: Intel(R) Core(TM) i5-4200U, RAM: 4.00GB), '컴퓨터 이름, 도메인 및 작업 그룹 설정' (Computer name: DESKTOP-9MBRSQS), and 'Windows 정품 인증' (Windows Genuine Advantage).

참고 항목
보안 및 유지 관리

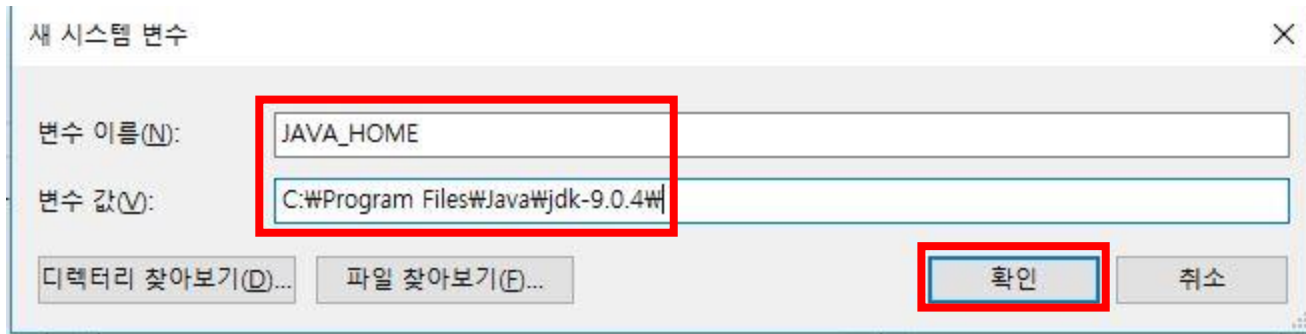
환경 변수 설정



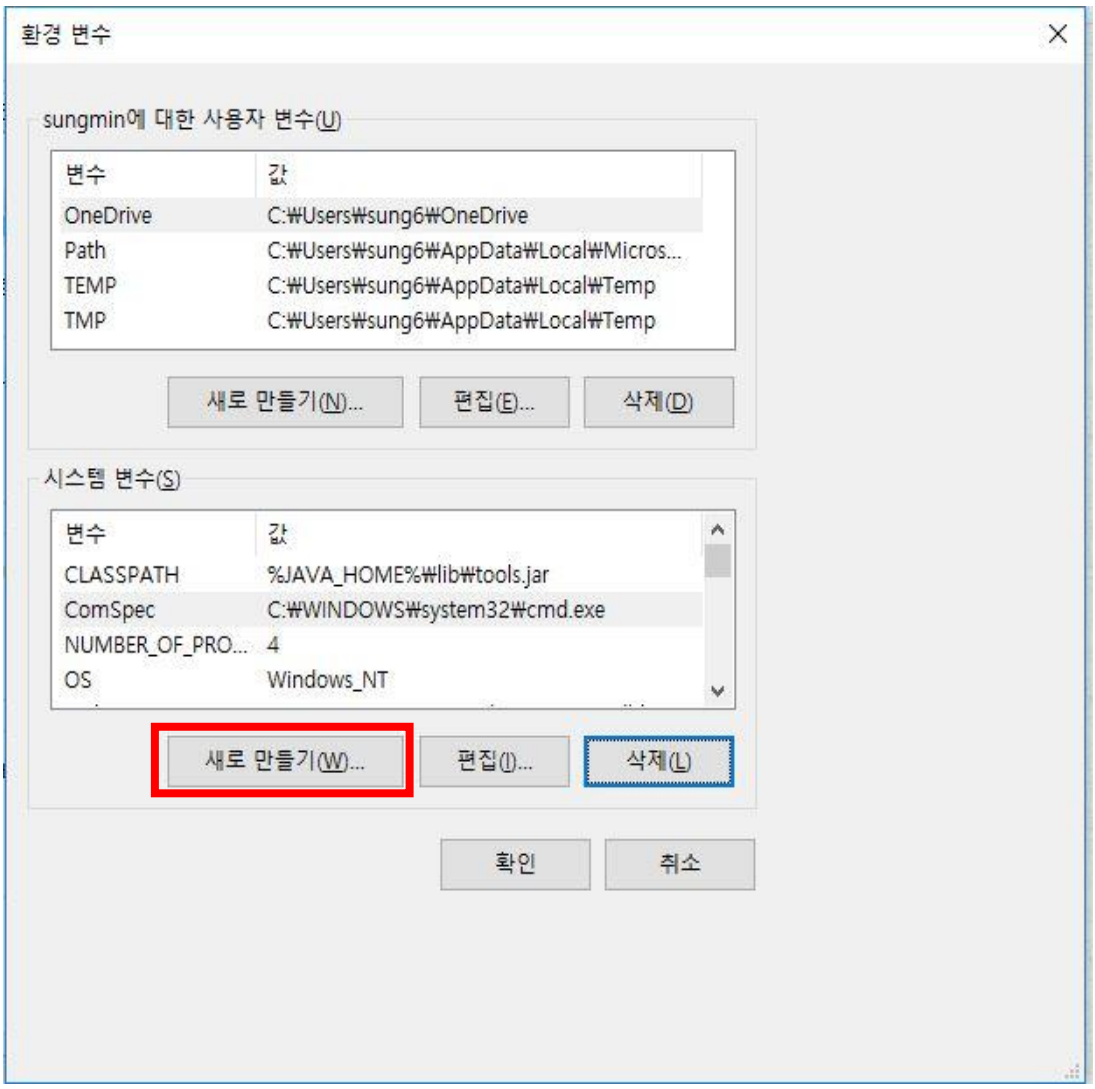
환경 변수 설정



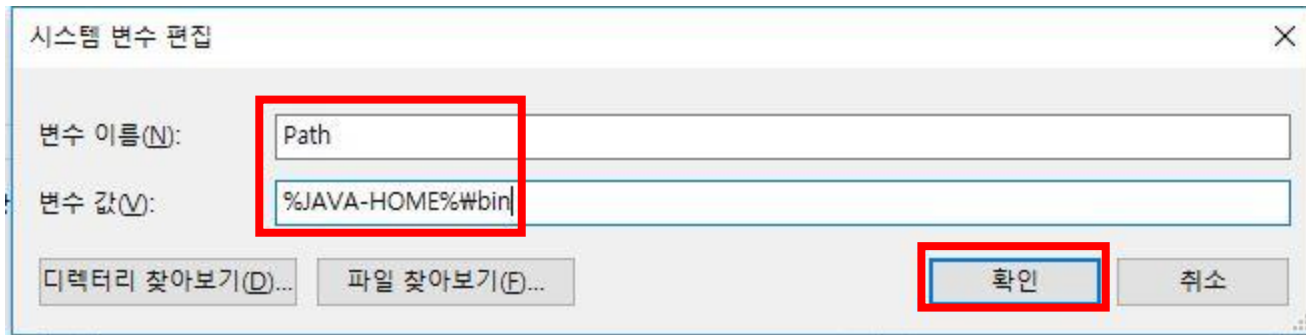
환경 변수 설정



환경 변수 설정



환경 변수 설정



환경 변수 설정

```

C:\WINDOWS\system32\cmd.exe
Microsoft Windows [Version 10.0.16299.309]
(c) 2017 Microsoft Corporation. All rights reserved.

C:\Users\sungb>java
사용법: java [옵션] <기본 클래스> [args...]
        (클래스 실행)
또는 java [옵션] -jar <jar 파일> [args...]
        (jar 파일 실행)
또는 java [옵션] -m <모듈>[/<기본 클래스>] [args...]
        java [옵션] --module <모듈>[/<기본 클래스>] [args...]
        (모듈의 기본 클래스 실행)

기본 클래스, -jar <jar 파일>, -m 또는 --module
<모듈>/<기본 클래스> 뒤에 나오는 인수는 기본 클래스에 인수로 전달됩니다.

이 경우 옵션에는 다음이 포함됩니다.

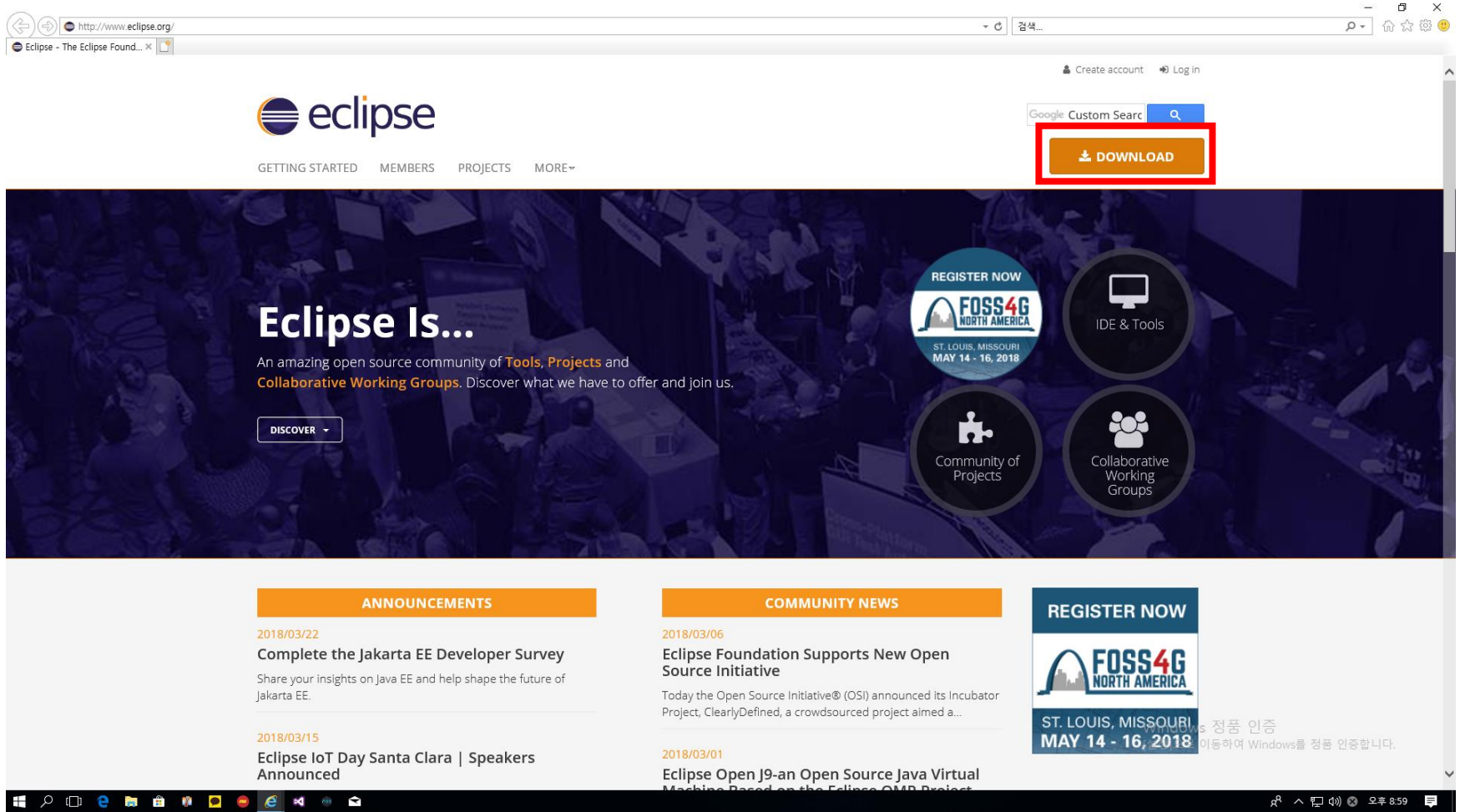
-d32      더 이상 사용되지 않음, 이후 릴리스에서 제거됩니다.
-d64      더 이상 사용되지 않음, 이후 릴리스에서 제거됩니다.
-cp <디렉토리 및 zip/jar 파일의 클래스 검색 경로>
-classpath <디렉토리 및 zip/jar 파일의 클래스 검색 경로>
--class-path <디렉토리 및 zip/jar 파일의 클래스 검색 경로>
           클래스 파일을 검색하기 위한 디렉토리, JAR 아카이브 및 ZIP 아카이브의 ;(으)로
           구분된 목록입니다.
-p <모듈 경로>
--module-path <모듈 경로>...
           디렉토리의 ;(으)로 구분된 목록입니다. 각 디렉토리는
           모듈의 디렉토리입니다.
--upgrade-module-path <모듈 경로>...
           디렉토리의 ;(으)로 구분된 목록입니다. 각 디렉토리는

```

Eclipse 설치

Eclipse 설치

http://www.eclipse.org



Eclipse 설치

The screenshot shows the Eclipse Downloads website. At the top, there is a navigation bar with the Eclipse logo, a search bar, and links for 'Create account' and 'Log in'. Below the navigation bar, there are links for 'GETTING STARTED', 'MEMBERS', 'PROJECTS', and 'MORE'. The main content area features a large blue banner with the text 'Download Eclipse Technology that is right for you'. To the right of the banner is a 'yatta' logo and a 'DOWNLOAD LAUNCHER' button. Below the banner, there are three sections: 'Tool Platforms' with 'Eclipse Che' and 'ORION', and 'Runtime Platforms' with 'jetty://', 'equinox', 'conclerge', and 'RAP'. The 'Eclipse Che' section has a 'DOWNLOAD 64 BIT' button highlighted with a red box. The 'ORION' section has a 'Promoted Download' star. The 'jetty://' section has a '64 bit Download' button. The 'equinox' section has a '64 bit Download' button. The 'conclerge' section has a '64 bit Download' button. The 'RAP' section has a '64 bit Download' button. At the bottom, there is a footer with the text 'Windows 정품 인증 [설정]으로 이동하여 Windows를 정품 인증합니다.' and a system tray showing the time '오후 9:00'.

Eclipse 설치

unless otherwise specified.

DOWNLOAD

Download from: Japan - Japan Advanced Institute of Science and Technology ([http](http://www.aist.go.jp))

File: [eclipse-inst-win64.exe](#) SHA-512

[>> Select Another Mirror](#)

Choose a mirror close to you

- Asia
 - Taiwan - [Computer Center, Shu-Te University](#)
 - Japan - [Yamagata University](#)
 - Taiwan - [Computer Center, Shu-Te University](#)
 - China - [Dalian Neusoft University of Information \(大连东软信息学院\)](#)
 - China - [University of Science and Technology of China](#)
 - Cyprus - [University of Cyprus, Library](#)
 - Philippines - [RISE](#)
 - Philippines - [Rise](#)
 - Korea, Republic Of - [Daum Kakao Corp.](#)
- Main Download Site
- Canada - [Main eclipse.org downloads area](#)

[SHOW ALL](#)

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 newsgroups

OR Get It Faster from our Members

Windows 정품 인증
[설정]으로 이동하여 Windows를 정품 인증합니다.

Eclipse 설치

The screenshot shows the Eclipse installer application window. The title bar reads "eclipseinstaller by Oomph". Below the title bar is a search bar with the placeholder text "type filter text". The main content area displays a list of IDE options, each with an icon, a title, and a description. The first option, "Eclipse IDE for Java Developers", is highlighted with a red rectangular border. The other options are "Eclipse IDE for Java EE Developers", "Eclipse IDE for C/C++ Developers", "Eclipse IDE for JavaScript and Web Developers", and "Eclipse IDE for PHP Developers".

Eclipse IDE for Java Developers
The essential tools for any Java developer, including a Java IDE, a Git client, XML Editor, Mylyn, Maven and Gradle integration

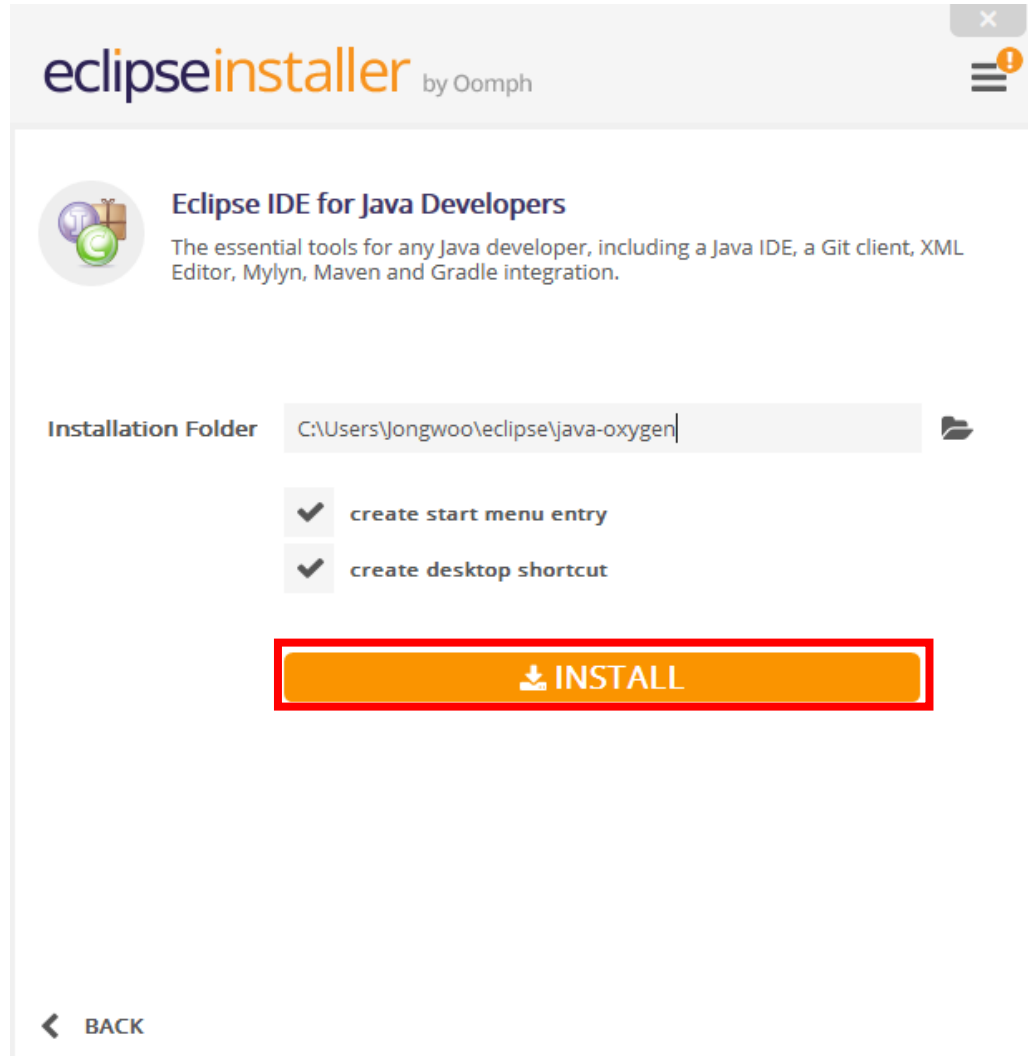
Eclipse IDE for Java EE Developers
Tools for Java developers creating Java EE and Web applications, including a Java IDE, tools for Java EE, JPA, JSF, Mylyn, EGit and others.

Eclipse IDE for C/C++ Developers
An IDE for C/C++ developers with Mylyn integration.

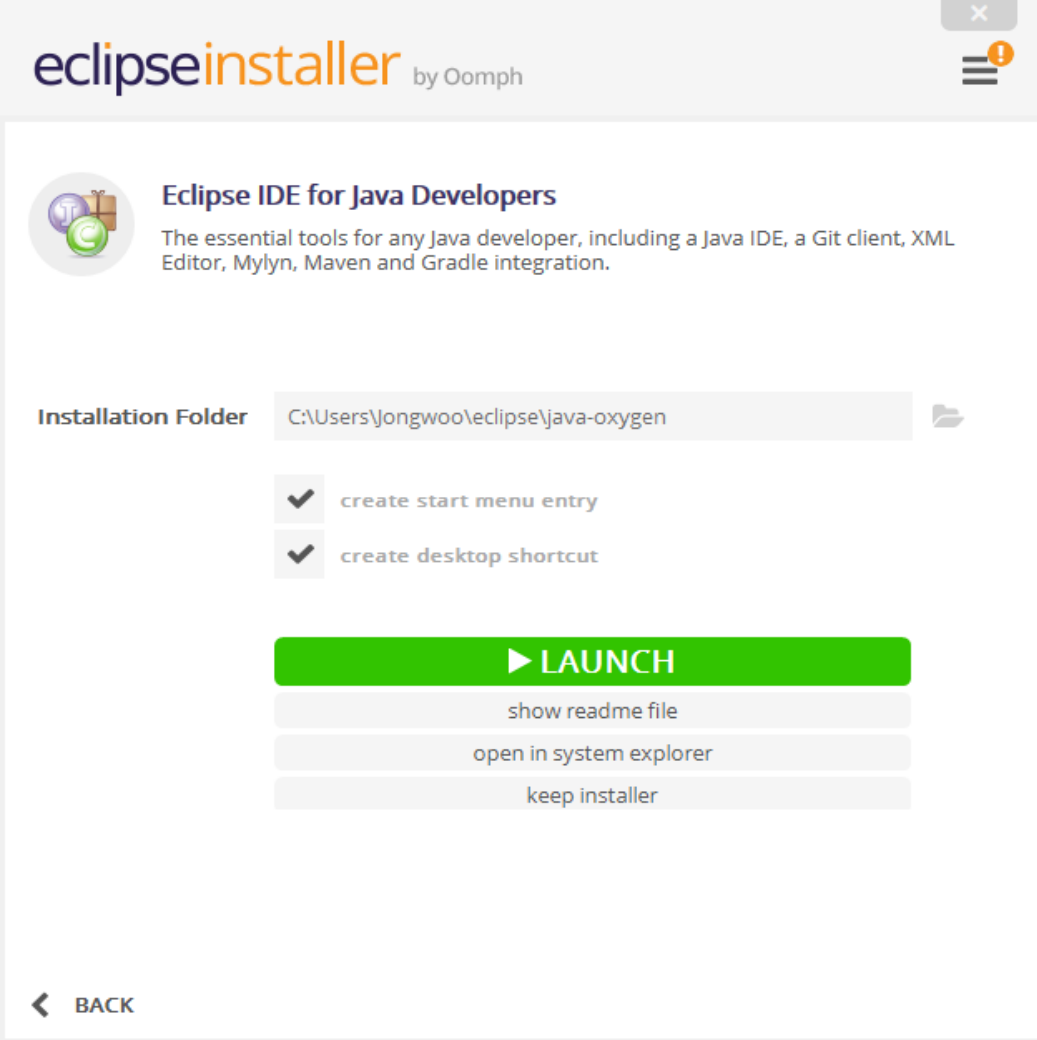
Eclipse IDE for JavaScript and Web Developers
The essential tools for any JavaScript developer, including JavaScript, HTML, CSS, XML languages support, Git client, and Mylyn.

Eclipse IDE for PHP Developers
The essential tools for any PHP developer, including PHP language support, Git client, Mylyn and editors for JavaScript, HTML, CSS and XML.

Eclipse 설치




Eclipse 설치



The screenshot shows the Eclipse Installer application window. The title bar reads "eclipseinstaller by Oomph". The main content area features a circular icon with a gift box and the text "Eclipse IDE for Java Developers". Below this, a description states: "The essential tools for any Java developer, including a Java IDE, a Git client, XML Editor, Mylyn, Maven and Gradle integration." The "Installation Folder" is set to "C:\Users\jongwoo\eclipse\java-oxygen". Two options are checked: "create start menu entry" and "create desktop shortcut". A prominent green "LAUNCH" button is visible, along with buttons for "show readme file", "open in system explorer", and "keep installer". A "BACK" button is located at the bottom left.

eclipseinstaller by Oomph

 **Eclipse IDE for Java Developers**
The essential tools for any Java developer, including a Java IDE, a Git client, XML Editor, Mylyn, Maven and Gradle integration.

Installation Folder C:\Users\jongwoo\eclipse\java-oxygen

- create start menu entry
- create desktop shortcut

▶ LAUNCH

show readme file

open in system explorer

keep installer

◀ BACK

◆ Junit 이란?

◆ JUNIT 설치

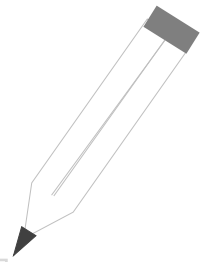
◆ Junit 실행

- ◆ Test case 수행
- ◆ Test case 수행 결과 확인

◆ Junit 제공 기능

- ◆ Annotation
- ◆ Assertion

Junit 이란?



❖ 소개

- 단위 모듈이 정확하게 구현이 됐는지 확인하는 도구
- **Unit Test**
- Junit5는 JDK 8 이후 지원

❖ 기능

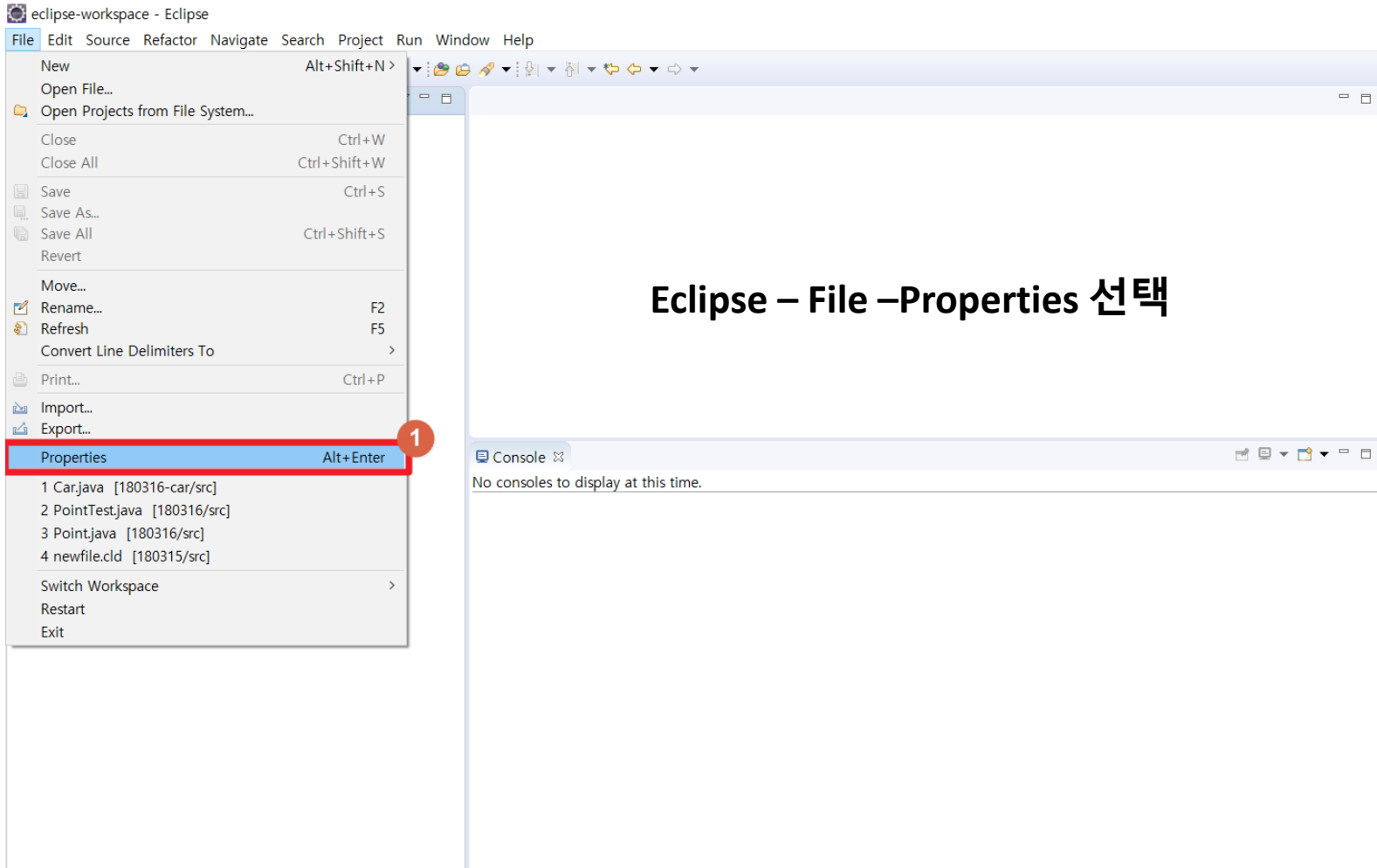
- **Test Case** 생성/실행 후 결과 확인 : **성공** or **실패**
- 제공되는 **Test Case** 로 여러가지 검증 가능

❖ 특징

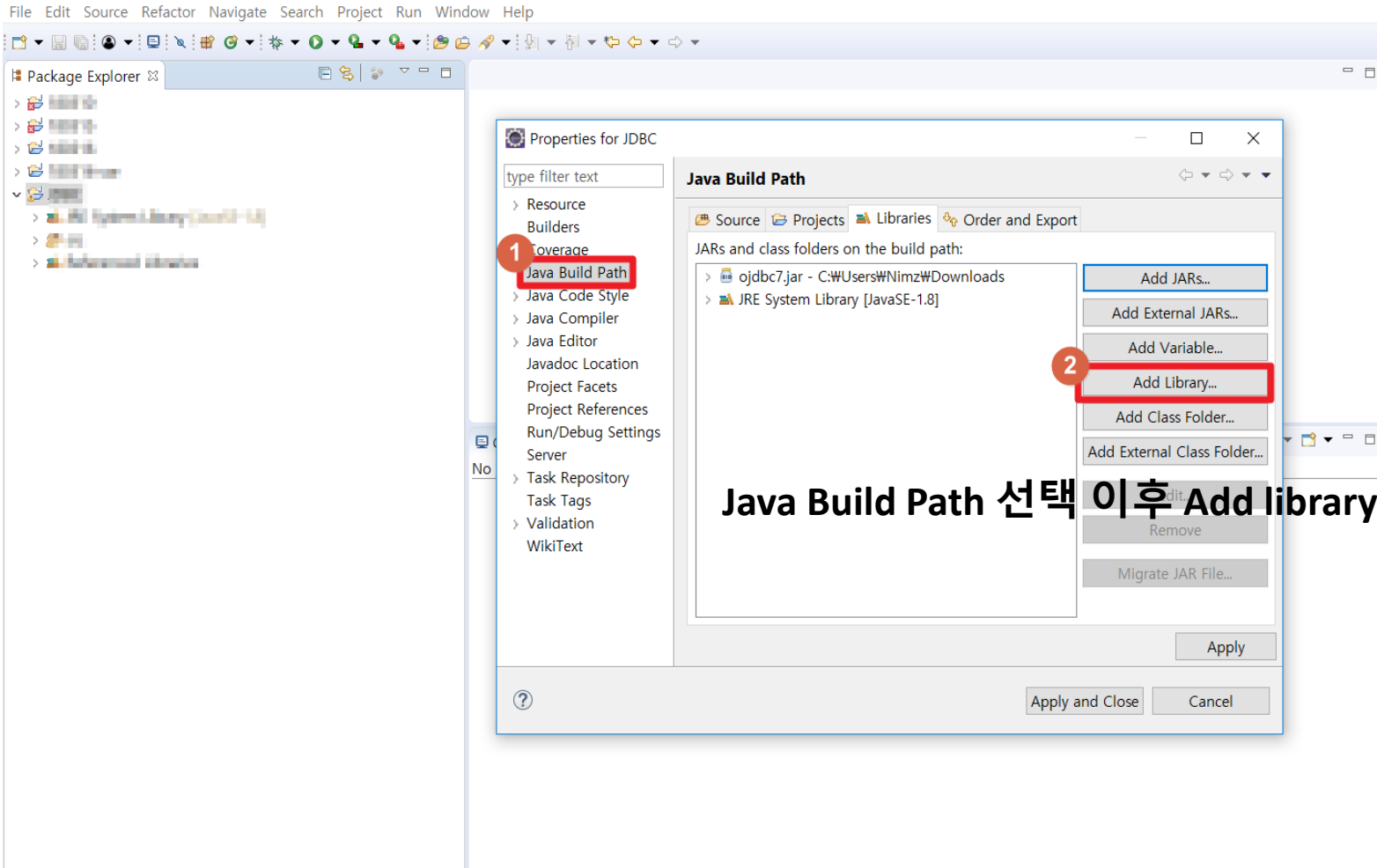
- 요구사항개발도구 **Jfeature**와 통합 가능
- 단위 모듈 별 테스트링으로 코드 품질 상승
- 단위 테스트링으로 통합 테스트링 진행 시 발생하는 문제 감소
- **Annotation** 지원
- **단정문(Assertion)** 결과 도출

Junit 설치

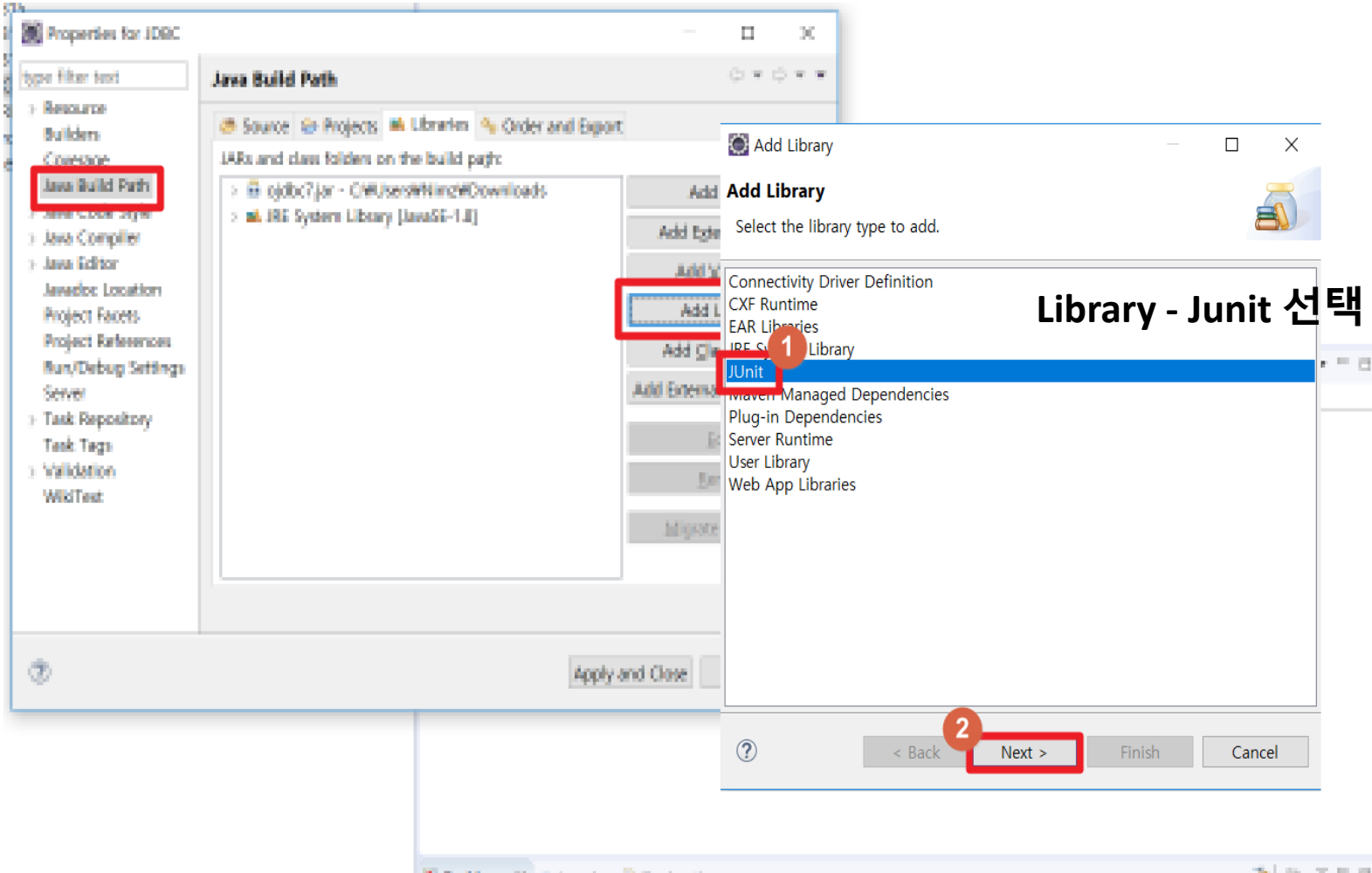
Eclipse에 내장되어 있음



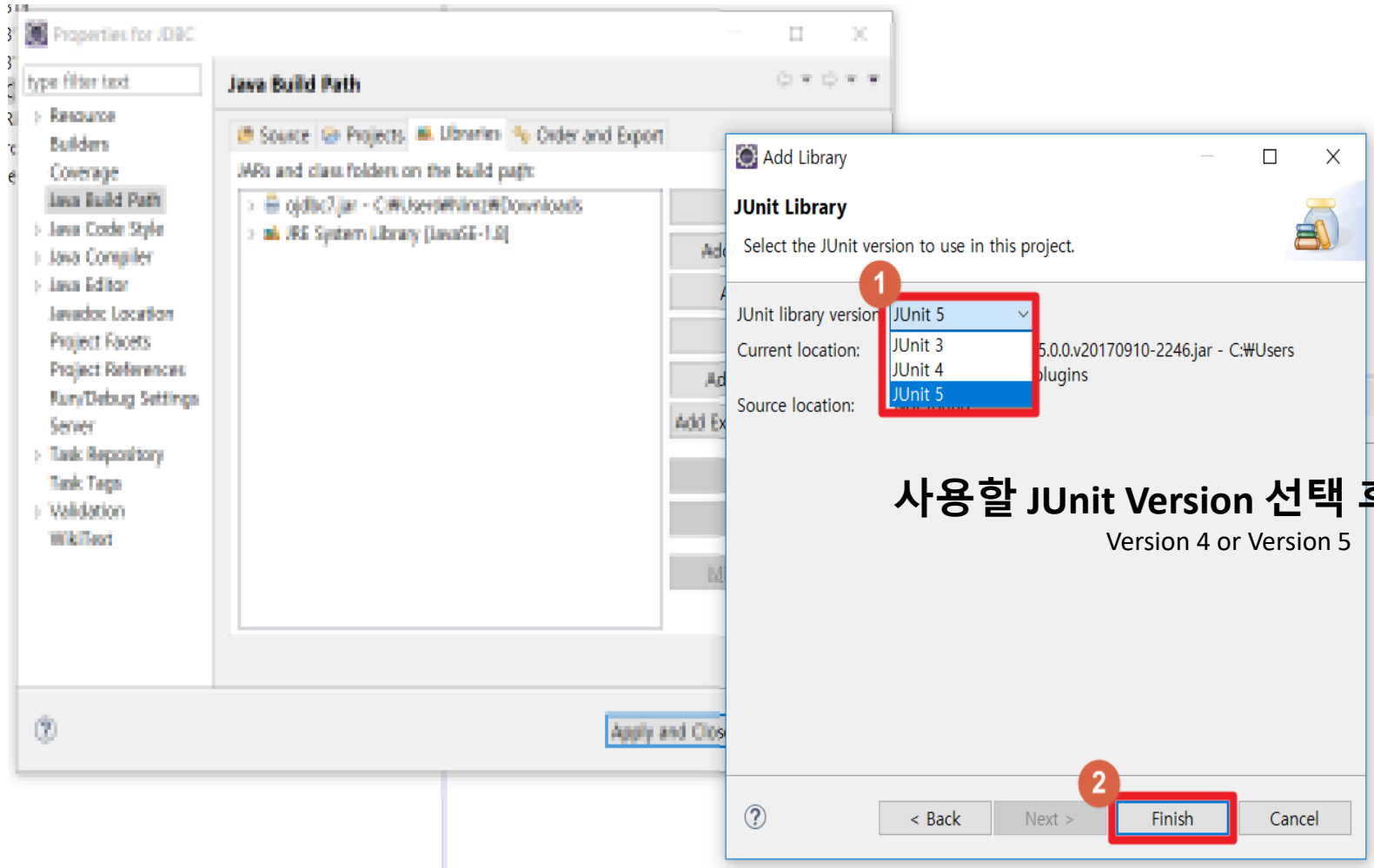
Junit 설치



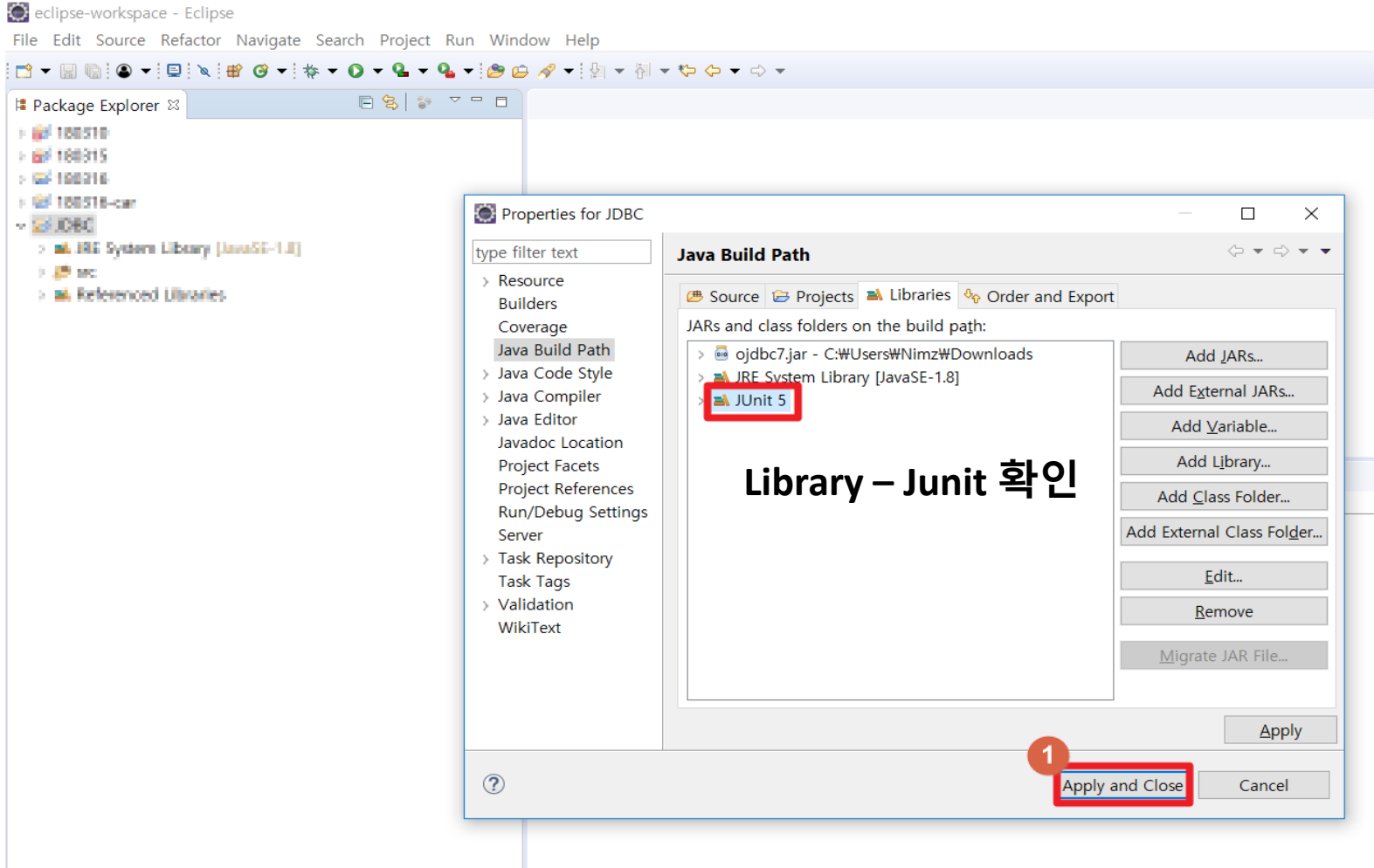
Junit 설치



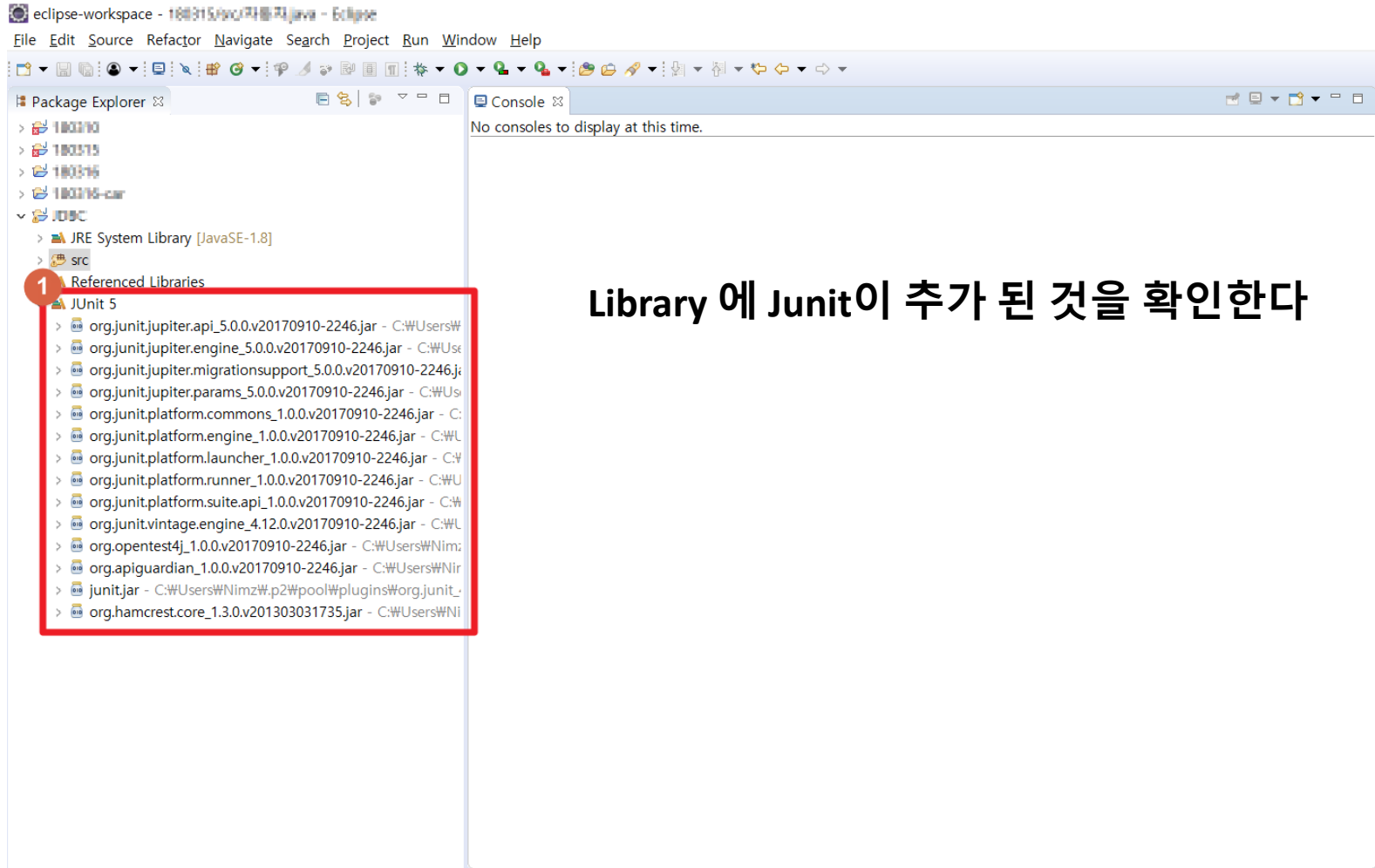
Junit 설치



Junit 설치



Junit 설치



The screenshot shows the Eclipse IDE interface. The Package Explorer on the left displays the project structure, including the 'Referenced Libraries' section. A red box highlights the 'JUnit 5' section, which contains a list of JUnit 5 related JAR files. The Console window on the right is empty, displaying the message 'No consoles to display at this time.'

1

Library 에 Junit이 추가 된 것을 확인한다

JUNIT 실행

Test Case

Junit 실행

eclipse-workspace - JDBC/src/number/Cal.java - Eclipse

File Edit Source Refactor Navigate Search Project Run Window Help

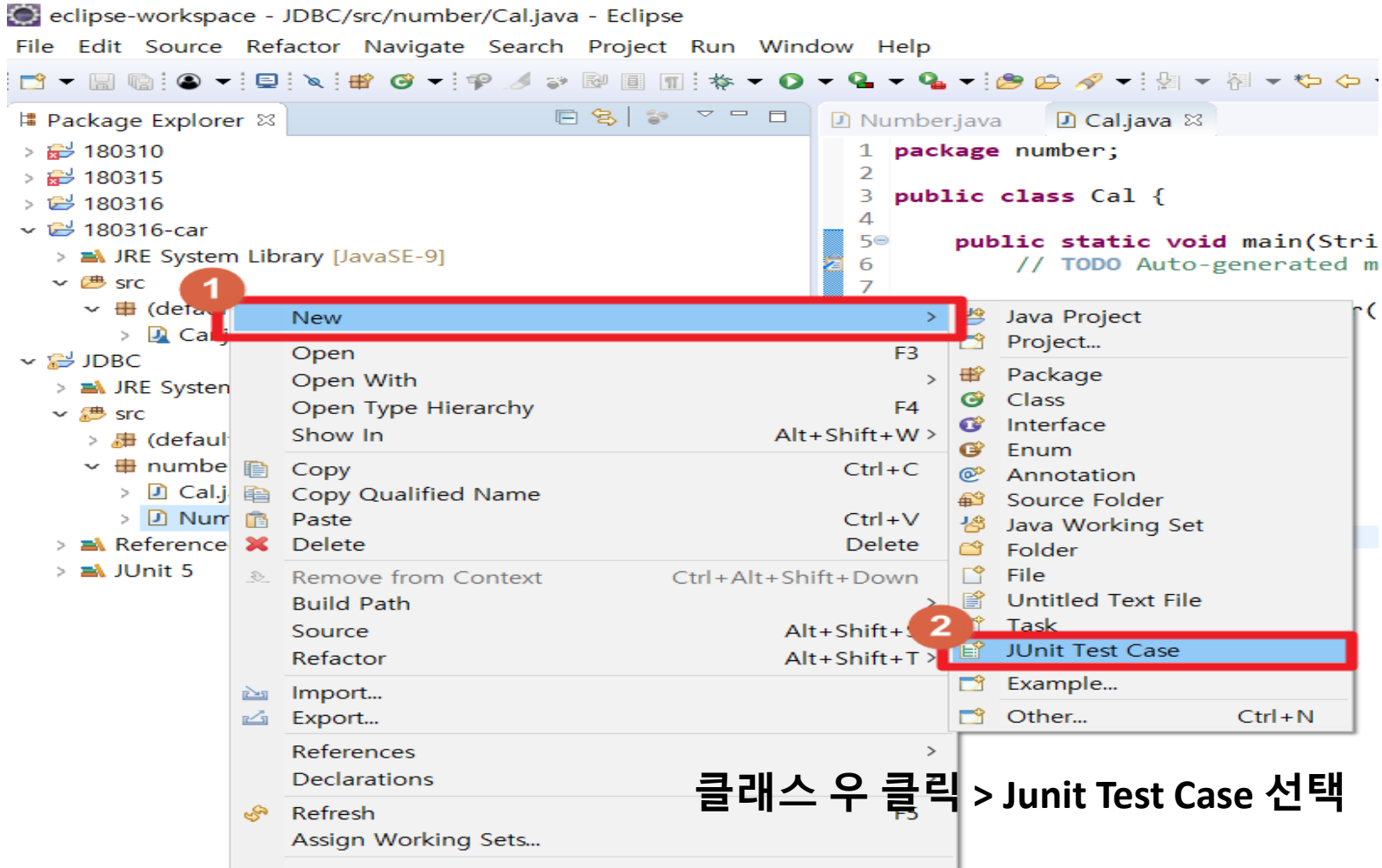
Package Explorer

- > 100210
- > 100213
- > 100216
- > 100218-car
 - > JRE System Library [JavaSE-9]
 - > src
 - (default package)
 - Car.java
- > JDBC
 - > JRE System Library [JavaSE-1.8]
 - > src
 - (default package)
 - > number
 - Cal.java
 - Number.java
 - > Referenced Libraries
 - > JUnit 5

```
1 package number;
2
3 public class Cal {
4
5     public static void main(String[] args) {
6         // TODO Auto-generated method stub
7
8         Number num = new Number();
9         num.add(3, 5, 6);
10        num.sub(30, 5, 6);
11        num.multiply(2,5, 6);
12
13
14
15    }
16
17 }
18
```

Test할 대상 생성

Junit 실행 Test Case



Junit 실행

Test Case

New JUnit Test Case

JUnit Test Case

Select the name of the new JUnit test case. You have the options to specify the class under test and on the next page, to select methods to be tested.

New JUnit 3 test **New JUnit 4 test** New JUnit Jupiter test

Source folder: JDBC/src

Package: number

Name: **NumberTest**

Superclass: java.lang.Object

Which methods would you like to create?

setUpBeforeClass() tearDownAfterClass()
 setUp() tearDown()
 constructor

Do you want to add comments? (Configure templates and default value [here](#))
 Generate comments

Class under test: number.Number

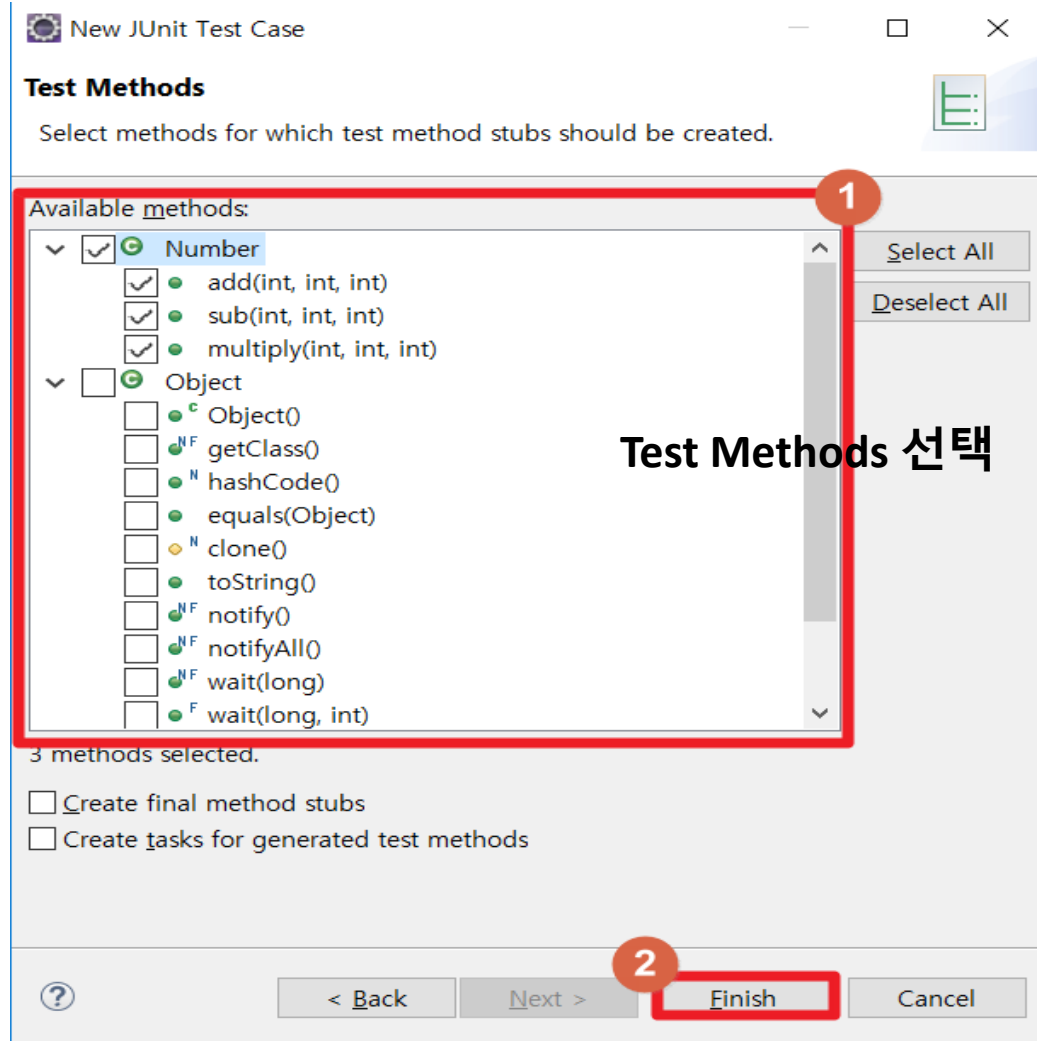
Next >

JUnit 4 test 선택 - Test Case 이름 생성 - 테스트 할 방식 선택

- ❖ 각 메소드의 실행 위치에 따라
- ❖ **setUp()** : Test Methods 실행되기전에 호출
- ❖ **tearDown()** : Test methods들이 실행되고 난 다음에 호출된다
- ❖ **tearDownAfterClass()** : Class 실행 후 호출
- ❖ **setUpBeforeClass()**: Class 실행 전 호출

Junit 실행

Test Case



Junit 실행

Test Case

eclipse-workspace - JDBC/src/number/NumberTest.java - Eclipse

File Edit Source Refactor Navigate Search Project Run Window Help

Package Explorer

- 180310
- 180315
- 180316
- 180316-car
- JDBC
 - JRE System Library [JavaSE-1.8]
 - src
 - (default package)
 - number
 - Cal.java
 - Number.java
 - NumberTest.java**
 - Referenced Libraries
 - JUnit 5

생성된 Test Class 확인

```

1 package number;
2
3 import static org.junit.Assert.*;
7
8 public class NumberTest {
9
10 @Before
11 public void setUp() throws Exception {
12 }
13
14 @Test
15 public void testAdd() {
16     fail("Not yet implemented");
17 }
18
19 @Test
20 public void testSub() {
21     fail("Not yet implemented");
22 }
23
24 @Test
25 public void testMultiply() {
26     fail("Not yet implemented");
27 }
28
29 }
30

```

Junit 실행

Test Case

eclipse-workspace - JDBC/src/number/NumberTest.java - Eclipse

File Edit Source Refactor Navigate Search Project Run Window Help

```

10  static int result;
11  @Before
12  public void setUp() throws Exception {
13
14  }
15
16
17  @Test
18  public void testAdd() {
19      result = num.add(3, 5, 6);
20      assertEquals(14,result);
21  }
22
23  @Test
24  public void testSub() {
25      result = num.sub(30, 5, 6);
26      assertEquals(19,result);
27      //fail("Not yet implemented");
28  }
29
30  @Test
31  public void testMultiply() {
32      result = num.multiply(2, 5, 6);
33      assertEquals(60,result);
34      //fail("Not yet implemented");
35  }
36
37

```

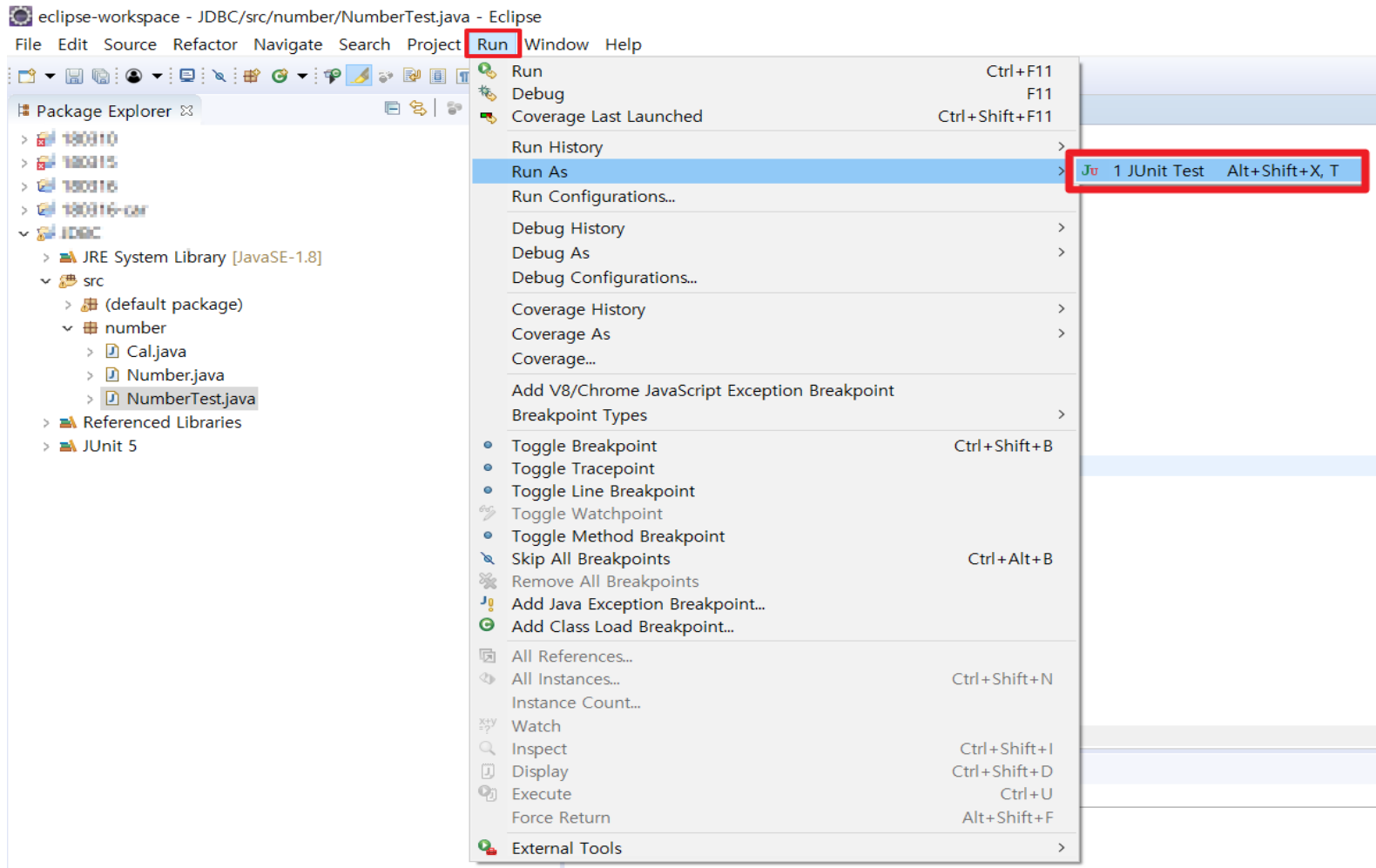
Test Methods 안에 Test 방식 넣기

AssertEqual(a,b): a,b의 결과 값이 같은지 확인

Junit 실행

Test Case

Run - Test Class 실행



Junit 실행

Test Case

```
1 package number;
2
3 import static org.junit.Assert.*;
4
5
6
7
8 public class NumberTest {
9     Number num = new Number()
10    @Before
11    public void setUp() throws Exception {
12
13    }
14
15
16    @Test
17    public void testAdd() {
18        int result = num.add(10, 4);
19        assertEquals(14, result);
20    }
21
22    @Test
23    public void testSub() {
24        int result = num.sub(19, 5);
25        assertEquals(19, result);
26        //fail("Not yet implemented");
27    }
28
29    @Test
30    public void testMultiply() {
31        int result = num.multiply(2, 5, 6);
32        assertEquals(60, result);
33    }
34 }
```

Save and Lau...
Select resources to save:
 NumberTest.java
Select All Deselect All
 Always save resources before launching
? OK Cancel

실행

Junit 실행

Test Case

eclipse-workspace - JDBC/src/number/NumberTest.java - Eclipse

File Edit Source Refactor Navigate Search Project Run Window Help

Package Explorer JUnit

4

Finished after 0.219 seconds

Runs: 3/3 Errors: 0 Failures: 0

> number.NumberTest [Runner: JUnit 5] (0.022 s)

❖ 실행 결과 확인
3/3 Test Case 성공:Success

```

1 package number;
2
3 import static org.junit.Assert.*;
4
5
6
7
8 public class NumberTest {
9     Number num = new Number();
10    @Before
11    public void setUp() throws Exception {
12
13
14    }
15
16    @Test
17    public void testAdd() {
18        int result = num.add(3, 5, 6);
19        assertEquals(14, result);
20    }
21
22    @Test
23    public void testSub() {
24        int result = num.sub(30, 5, 6);
25        assertEquals(19, result);
26        //fail("Not yet implemented");
27    }
28
29    @Test
30    public void testMultiply() {
31        int result = num.multiply(2, 5, 6);
32        assertEquals(60, result);

```

Junit 실행

Test Case 실행 결과 확인

eclipse-workspace - JDBC/src/number/NumberTest.java - Eclipse

File Edit Source Refactor Navigate Search Project Run Window Help

Package Explorer JUnit

Finished after 0.146 seconds

Runs: 3/3 Errors: 0 Failures: 1

number.NumberTest [Runner: JUnit 5] (0.008 s)

- testAdd (0.004 s)
- testSub (0.001 s)
- testMultiply (0.003 s)

```

1 package number;
2
3 import static org.junit.Assert.*;
4
5
6
7
8 public class NumberTest {
9     Number num = new Number();
10    @Before
11    public void setUp() throws Exception {
12
13    }
14
15
16    @Test
17    public void testAdd() {
18        int result = num.add(3, 5, 6);
19        assertEquals(15, result);
20    }
21
22    @Test
23    public void testSub() {
24        int result = num.sub(30, 5, 6);
25        assertEquals(19, result);
26        //fail("Not yet implemented");
27    }
28
29    @Test
30    public void testMultiply() {
31        int result = num.multiply(2, 5, 6);
32        assertEquals(60, result);

```

❖ 실행 결과 확인

2/3 Test Case 성공:Success

1/3 Test Case 실패:Fail

Failure Trace

java.lang.AssertionError: expected:<15> but was:<14>

at number.NumberTest.testAdd(NumberTest.java:19)

at java.base/jdk.internal.reflect.NativeMethodAccessorImpl.invoke

JUNIT 제공 기능

Annotation

Assertion

Junit 제공 기능

Annotation

Name	Notation
@Test	Public void method에 Test Case로 실행됨을 알려줌
@Test(expected = Exception.class)	Test Case에 예외 처리된 것을 Test함
@Test(timeout=100)	Test Case가 실행되는 시간을 측정
@Before	-Test method 실행 전 가지고 있던 자원을 return 및 초기화 해준다
@After	-Before 후 항상 After이 선언되는 것이 좋음 -Test method 실행 후 가지고 있던 자원을 return 해준다
@BeforeClass	-비싼 자원을 동시에 사용해야 할 때가 있는데 자원의 최적화를 시켜주는 효과를 가진다. -자원의 반환&초기화 클래스 실행 되기 전 실행된다.
@AfterClass	-비싼 자원을 동시에 사용해야 할 때가 있는데 자원의 최적화를 시켜주는 효과를 가진다 -자원의 반환&초기화가 클래스 실행 후 실행.
@Ignore	지정된 유닛은 Test Case가 아예 실행되지 않음

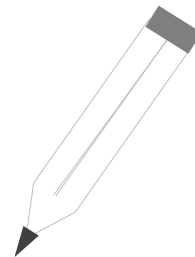
Junit 제공 기능

Assertion(단정)

Name	Notation
<code>assertArrayEquals(a,b)</code>	두 a, b 배열이 같음을 확인
<code>assertEquals(a,b)</code>	두 a, b 객체 가 같음(same)을 확인
<code>assertFalse()</code>	결과값이 False인지 확인
<code>assertNotNull()</code>	매개 변수가 null이 아니라고 확인
<code>assertNotSame</code>	두 객체가 같은 것이 아닌지 확인
<code>assertNull()</code>	객체가 null 인지 확인
<code>assertSame()</code>	두 객체가 같은 객체임을 확인 -assertEquals는 결과만 확인 same은 객체 자체를 확인
<code>assertTrue(condition)</code>	컨디션이 사실인지 확인
<code>Fail()</code>	Test가 아무 메시지 없이 fail
<code>Fail(java.lang.String.message)</code>	Test가 fail이라는 메시지를 줌

- ◆ Gradle 이란?
- ◆ Gradle 설치
- ◆ Buildship Plugin 설치
- ◆ Gradle 빌드
- ◆ Jenkins 이란?
- ◆ Jenkins 설치

Gradle 이란?



❖ 소개

- Apache ant & maven 기반의 자동 빌드 시스템

❖ 기능

- up to date 관리

❖ 특징

- Apache ant의 유연성 + Apache maven의 편리성
- 다양한 Plugin을 통한 확장 가능성
- Groovy 기반의 DSL사용
- Open Source
- API 제공

Gradle 설치

Gradle 설치

<http://gradle.org> - Release 확인

Releases

Here you can find binaries and reference documentation for current and past versions of Gradle. You may find [release candidates](#) and [nightly builds](#) on their respective pages.

You can [install Gradle](#) through various other tools, or download a ZIP using the links on this page.

Command-line completion scripts for bash and zsh can be downloaded from the [gradle-completion project page](#).

Getting Started Resources

The Gradle team offers free [introductory training](#) and [advanced training](#) courses bi-monthly.

There are many [Gradle tutorials](#) available to help you get started quickly. Source distributions also include many [working samples](#) for which guides are not yet written.

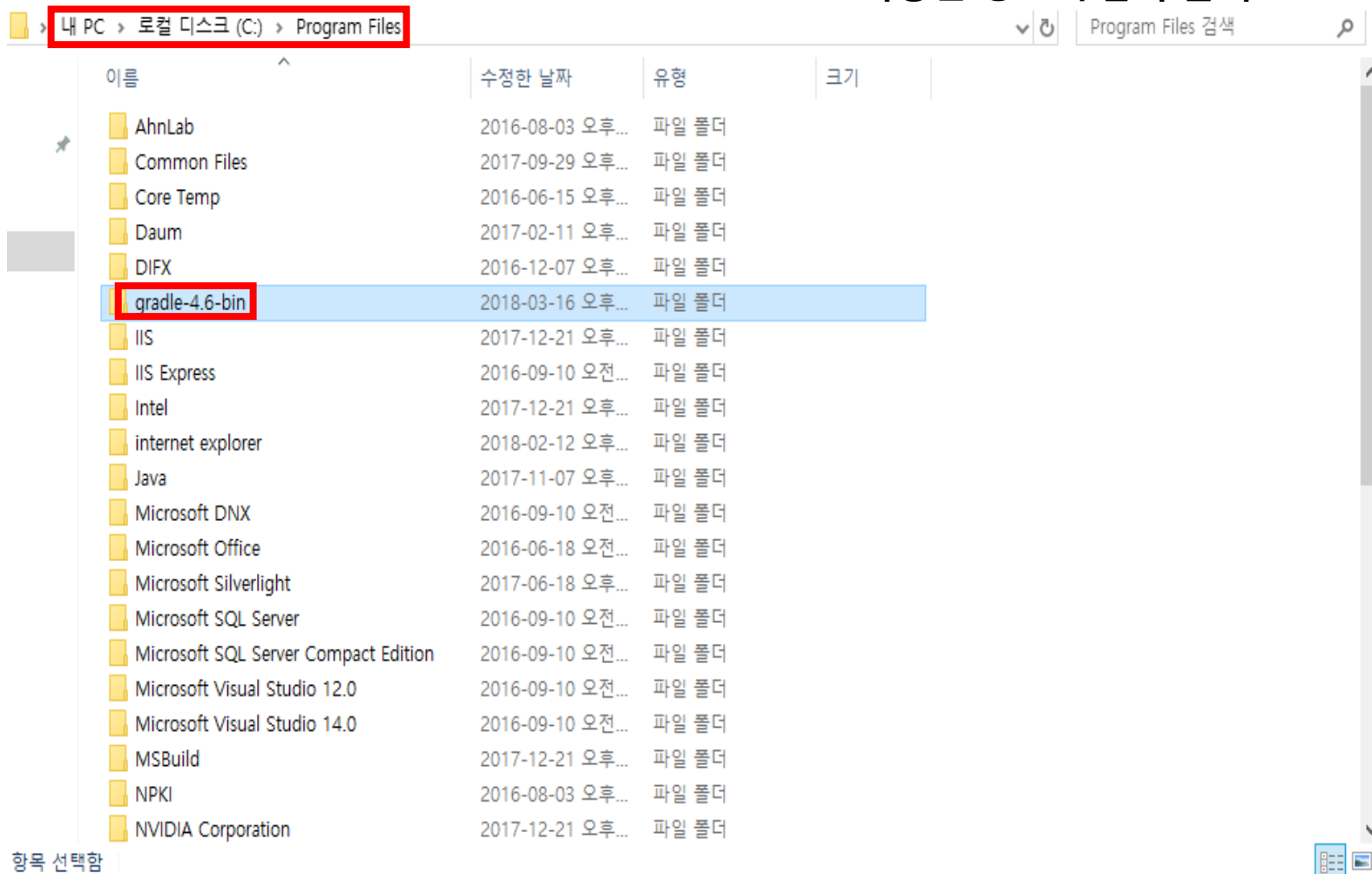
📦 v4.6

📅 Feb 28, 2018

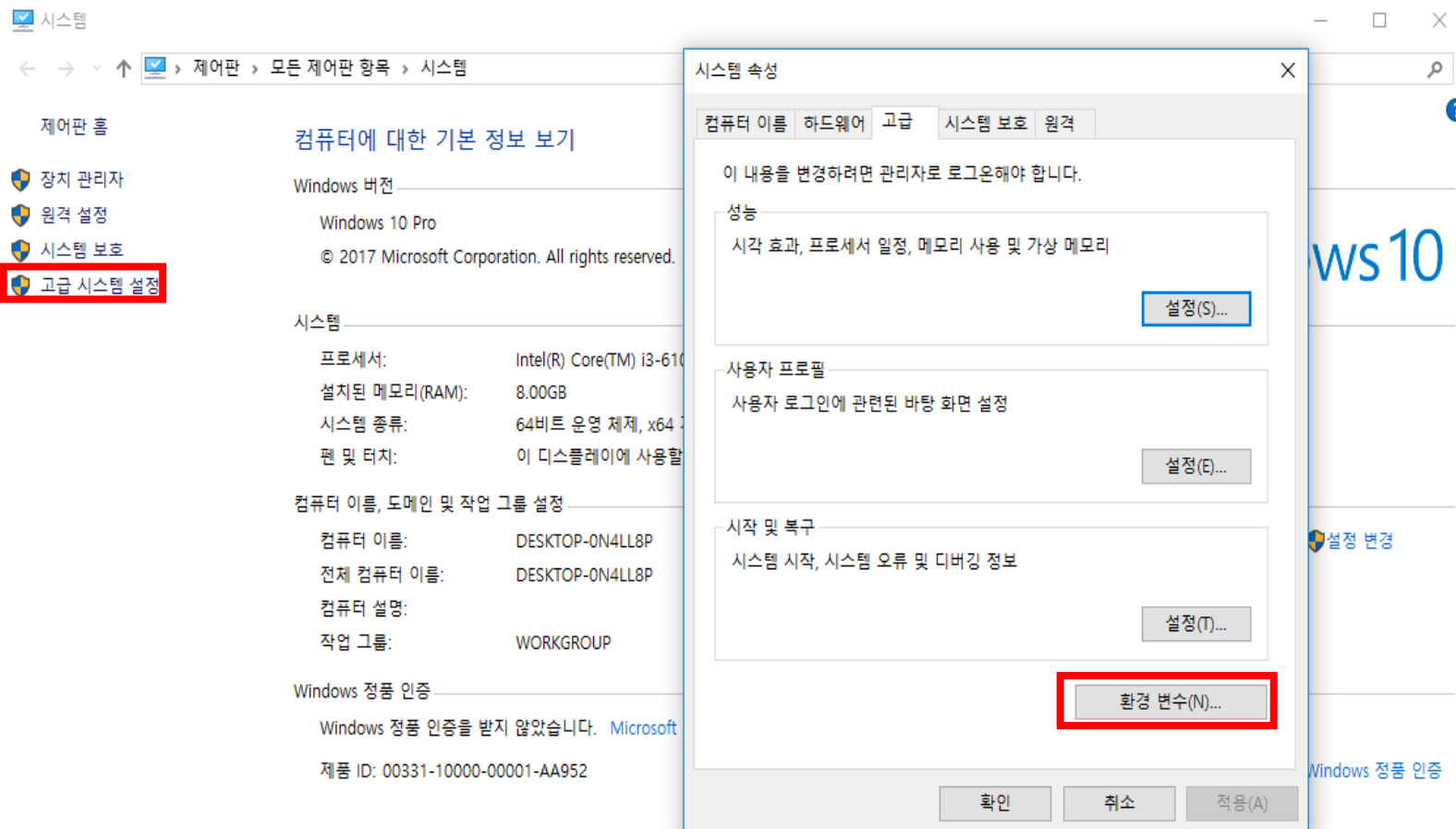
- Download: [binary-only](#) (sha256) or [complete](#) (sha256)
- [User Manual](#)
- [API Javadoc](#)
- [DSL Reference](#)
- [Release Notes](#)

Gradle 설치

파일 다운로드
적당한 경로에 압축 풀기



Gradle 설치



참고 항목
보안 및 유지 관리

Gradle 설치

환경 변수 편집

✕

C:\Program Files (x86)\Intel\iCLS Client\
C:\Program Files\Intel\iCLS Client\
C:\Windows\system32
C:\Windows
C:\Windows\System32\Wbem
C:\Windows\System32\WindowsPowerShell\v1.0\
C:\Program Files (x86)\Intel\Intel(R) Management Engine Com...
C:\Program Files\Intel\Intel(R) Management Engine Componen...
C:\Program Files (x86)\Intel\Intel(R) Management Engine Com...
C:\Program Files\Intel\Intel(R) Management Engine Componen...
C:\Program Files (x86)\NVIDIA Corporation\PhysX\Common
%SystemRoot%\system32
%SystemRoot%
%SystemRoot%\System32\Wbem
%SYSTEMROOT%\System32\WindowsPowerShell\v1.0\
%USERPROFILE%\#.dnx\bin
C:\Program Files\Microsoft DNX\Dnvm\
C:\Program Files\Microsoft SQL Server\130\Tools\Binn\
C:\Program Files\gradle-4.2.1-bin\gradle-4.2.1\bin
%JAVA_HOME%\bin

새로 만들기(N)

편집(E)

찾아보기(B)...

삭제(D)

위로 이동(U)

아래로 이동(O)

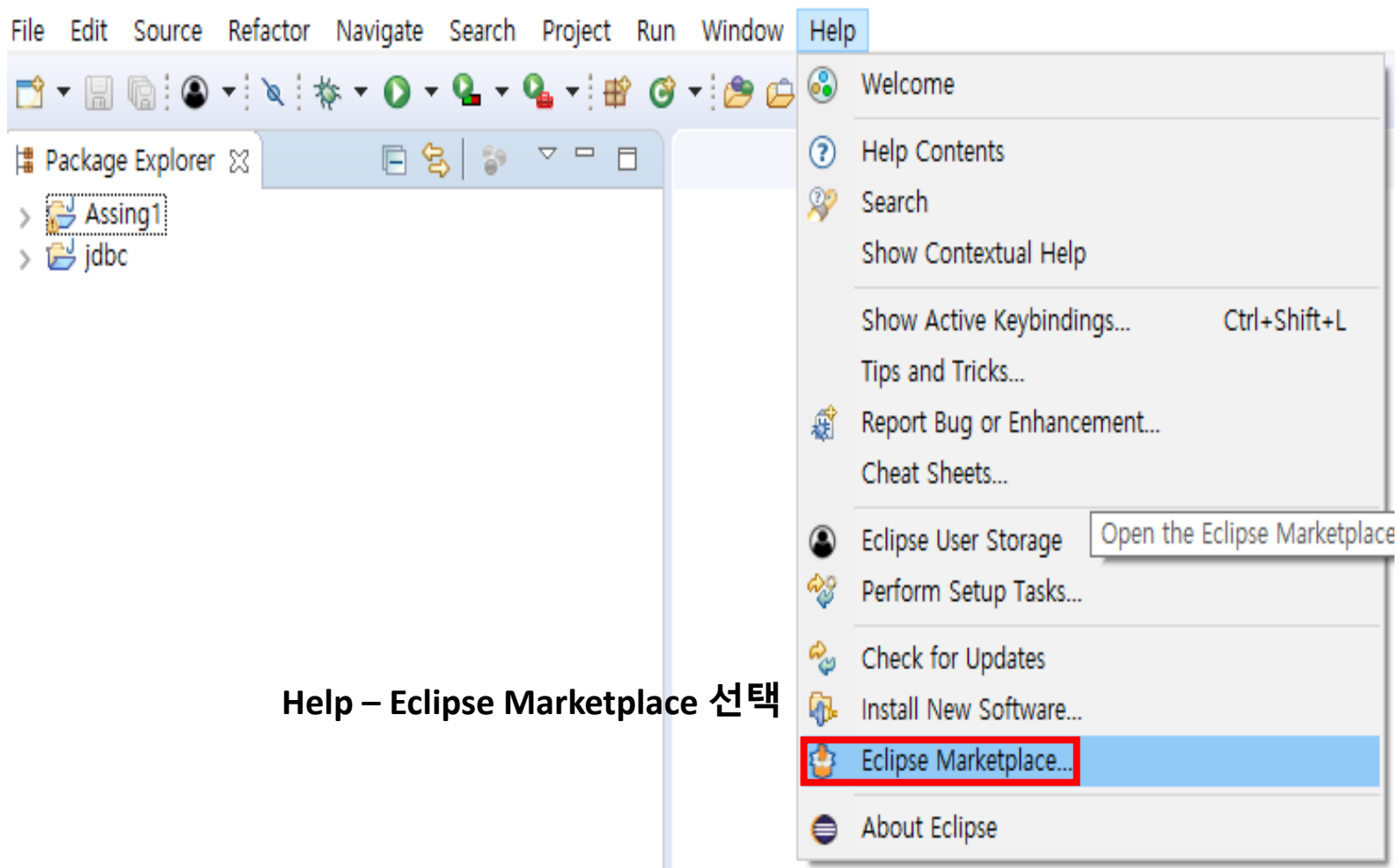
텍스트 편집(T)...

확인

취소

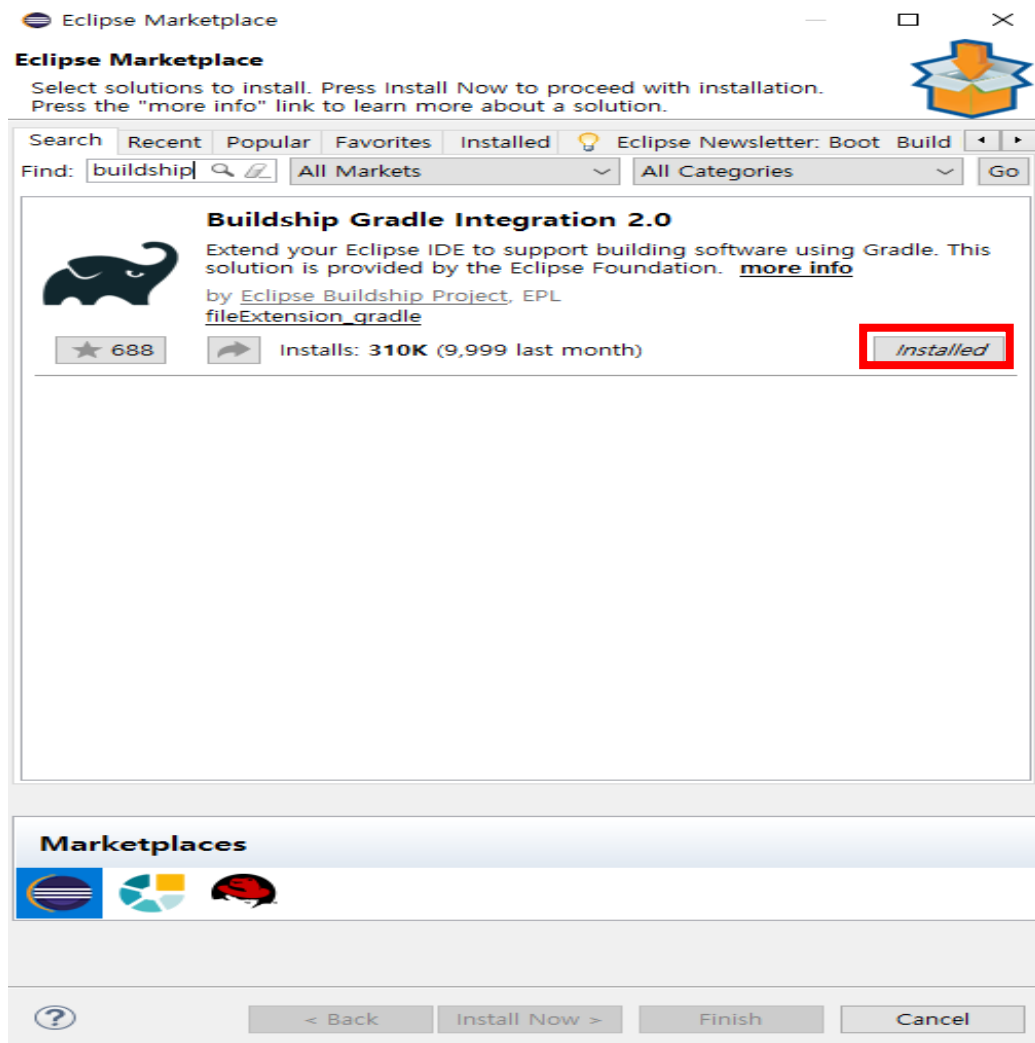
Buildship Plugin 2.0 설치

Buildship Plugin 2.0 설치

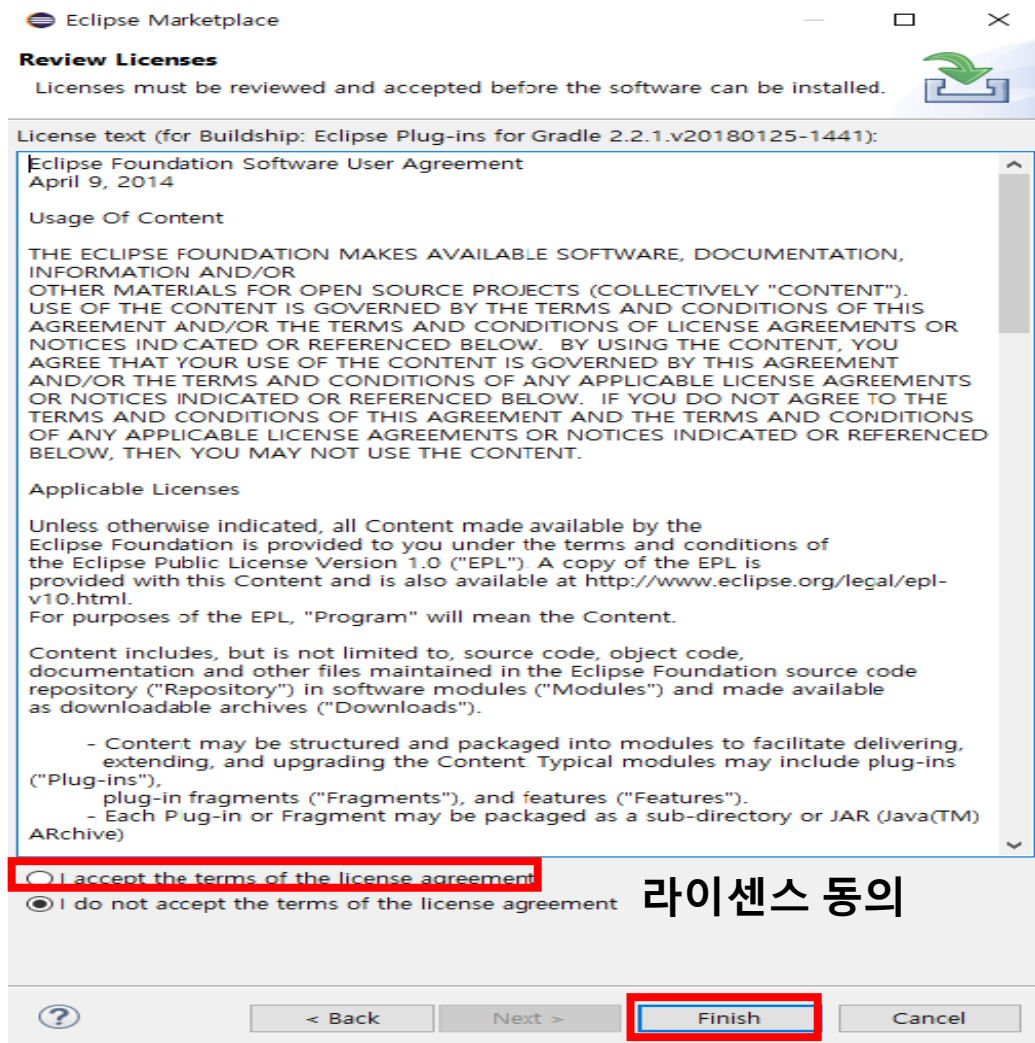


Help – Eclipse Marketplace 선택

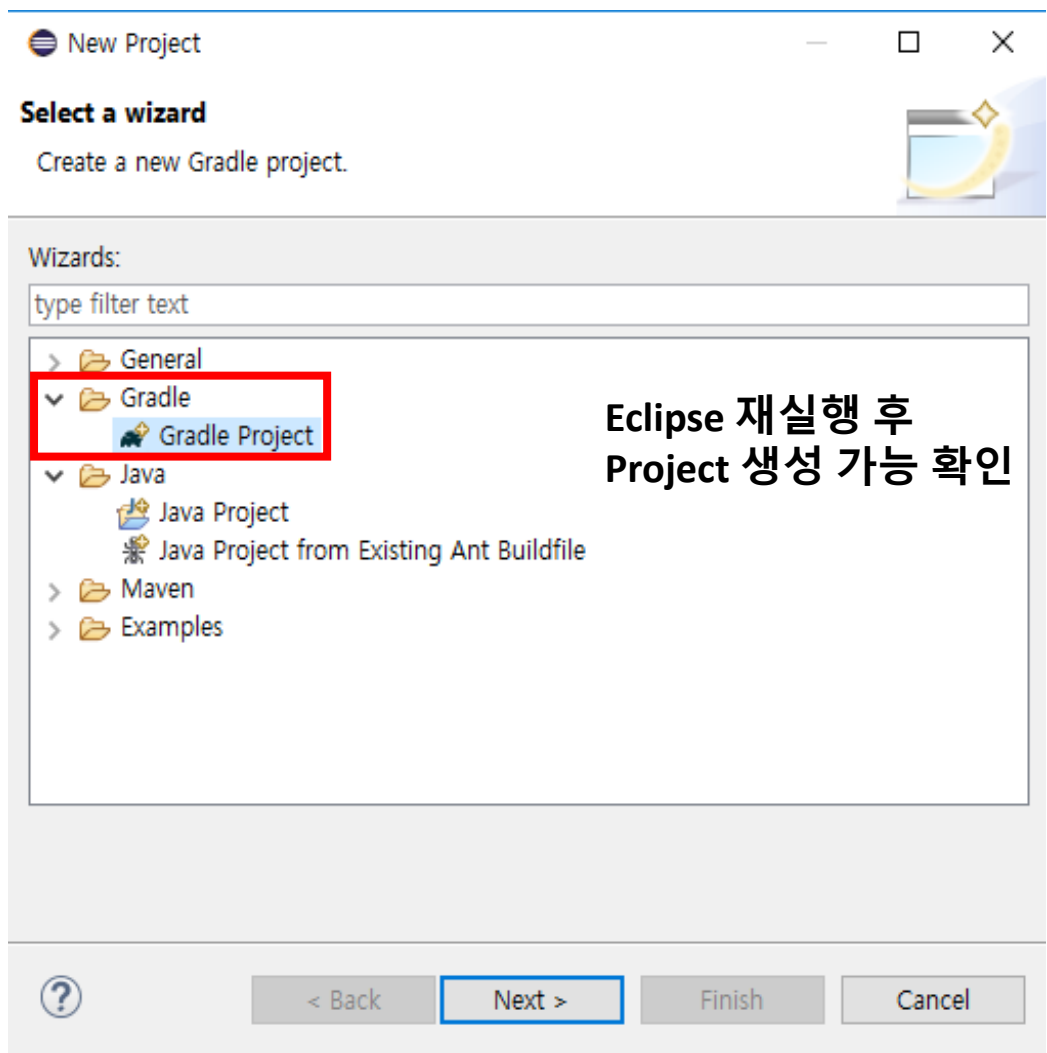
Buildship Plugin 2.0 설치



Buildship Plugin 2.0 설치

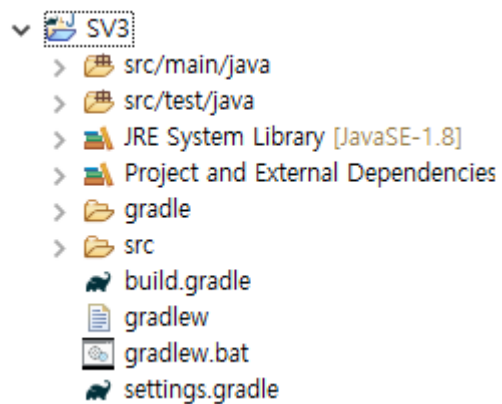


Buildship Plugin 2.0 설치

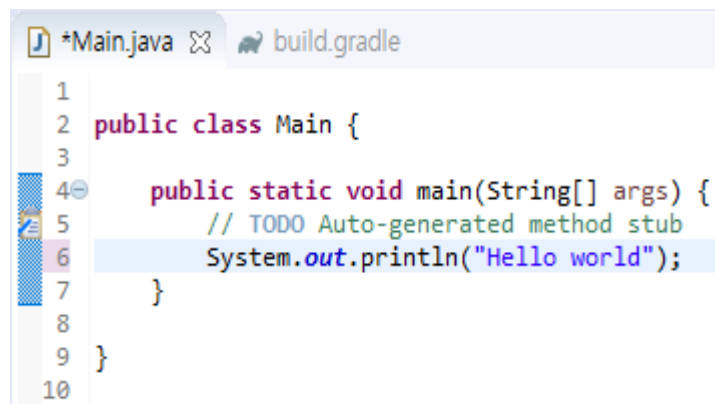


Gradle 빌드

Gradle 빌드



Test Project 생성



Test Code 생성

Gradle 빌드

```
*Main.java build.gradle
1 /*
2  * This build file was generated by the Gradle 'init' task.
3  *
4  * This generated file contains a sample Java Library project to get you started.
5  * For more details take a look at the Java Libraries chapter in the Gradle
6  * user guide available at https://docs.gradle.org/4.3/userguide/java_library_plugin.html
7  */
8
9 // Apply the java-library plugin to add support for Java Library
10 apply plugin: 'java-library'
11
12 // In this section you declare where to find the dependencies of your project
13 repositories {
14     // Use jcenter for resolving your dependencies.
15     // You can declare any Maven/Ivy/file repository here.
16     jcenter()
17 }
18
19 dependencies {
20     // This dependency is exported to consumers, that is to say found on their compile classpath.
21     api 'org.apache.commons:commons-math3:3.6.1'
22
23     // This dependency is used internally, and not exposed to consumers on their own compile classpath.
24     implementation 'com.google.guava:guava:23.0'
25
26     // Use JUnit test framework
27     testImplementation 'junit:junit:4.12'
28 }
```

Gradle 빌드

gradle tasks

```
C:\WINDOWS\system32\cmd.exe
```

```
buildEnvironment - Displays all buildscript dependencies declared in root project 'SV3'.
components - Displays the components produced by root project 'SV3'. [incubating]
dependencies - Displays all dependencies declared in root project 'SV3'.
dependencyInsight - Displays the insight into a specific dependency in root project 'SV3'.
dependentComponents - Displays the dependent components of components in root project 'SV3'. [incubating]
help - Displays a help message.
model - Displays the configuration model of root project 'SV3'. [incubating]
projects - Displays the sub-projects of root project 'SV3'.
properties - Displays the properties of root project 'SV3'.
tasks - Displays the tasks runnable from root project 'SV3'.
```

Verification tasks

```
check - Runs all checks.
test - Runs the unit tests.
```

Rules

```
Pattern: clean<TaskName>: Cleans the output files of a task.
Pattern: build<ConfigurationName>: Assembles the artifacts of a configuration.
Pattern: upload<ConfigurationName>: Assembles and uploads the artifacts belonging to a configuration.
```

To see all tasks and more detail, run `gradle tasks --all`

To see more detail about a task, run `gradle help --task <task>`

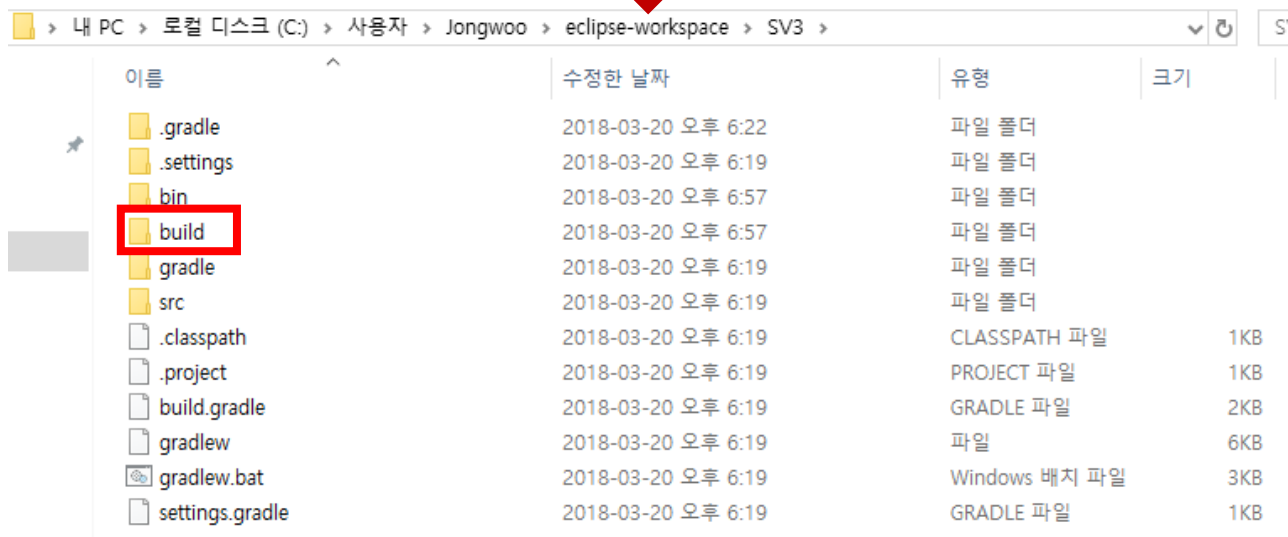
```
BUILD SUCCESSFUL in 0s
1 actionable task: 1 executed
C:\Users\Jongwoo\workspace\SV3>
```

Gradle 빌드

gradle build

```
C:\Users\Jongwoo\workspace\SV3>gradle build  
BUILD SUCCESSFUL in 1s  
4 actionable tasks: 4 executed
```

build 폴더 생성



The screenshot shows a Windows File Explorer window with the path '내 PC > 로컬 디스크 (C:) > 사용자 > Jongwoo > eclipse-workspace > SV3'. The file list is as follows:

이름	수정된 날짜	유형	크기
.gradle	2018-03-20 오후 6:22	파일 폴더	
.settings	2018-03-20 오후 6:19	파일 폴더	
bin	2018-03-20 오후 6:57	파일 폴더	
build	2018-03-20 오후 6:57	파일 폴더	
gradle	2018-03-20 오후 6:19	파일 폴더	
src	2018-03-20 오후 6:19	파일 폴더	
.classpath	2018-03-20 오후 6:19	CLASSPATH 파일	1KB
.project	2018-03-20 오후 6:19	PROJECT 파일	1KB
build.gradle	2018-03-20 오후 6:19	GRADLE 파일	2KB
gradlew	2018-03-20 오후 6:19	파일	6KB
gradlew.bat	2018-03-20 오후 6:19	Windows 배치 파일	3KB
settings.gradle	2018-03-20 오후 6:19	GRADLE 파일	1KB

Gradle 빌드

파일 | 홈 | 공유 | 보기

← → ↕ ↑

내 PC > 로컬 디스크 (C:) > 사용자 > Jongwoo > eclipse-workspace > SV3 > build

이름	수정한 날짜	유형
classes → 컴파일 된 .class 파일	2018-03-20 오후...	파일 폴더
libs → 프로젝트이름.jar	2018-03-20 오후...	파일 폴더
reports → 유닛테스트 결과	2018-03-20 오후...	파일 폴더
test-results	2018-03-20 오후...	파일 폴더
tmp	2018-03-20 오후...	파일 폴더

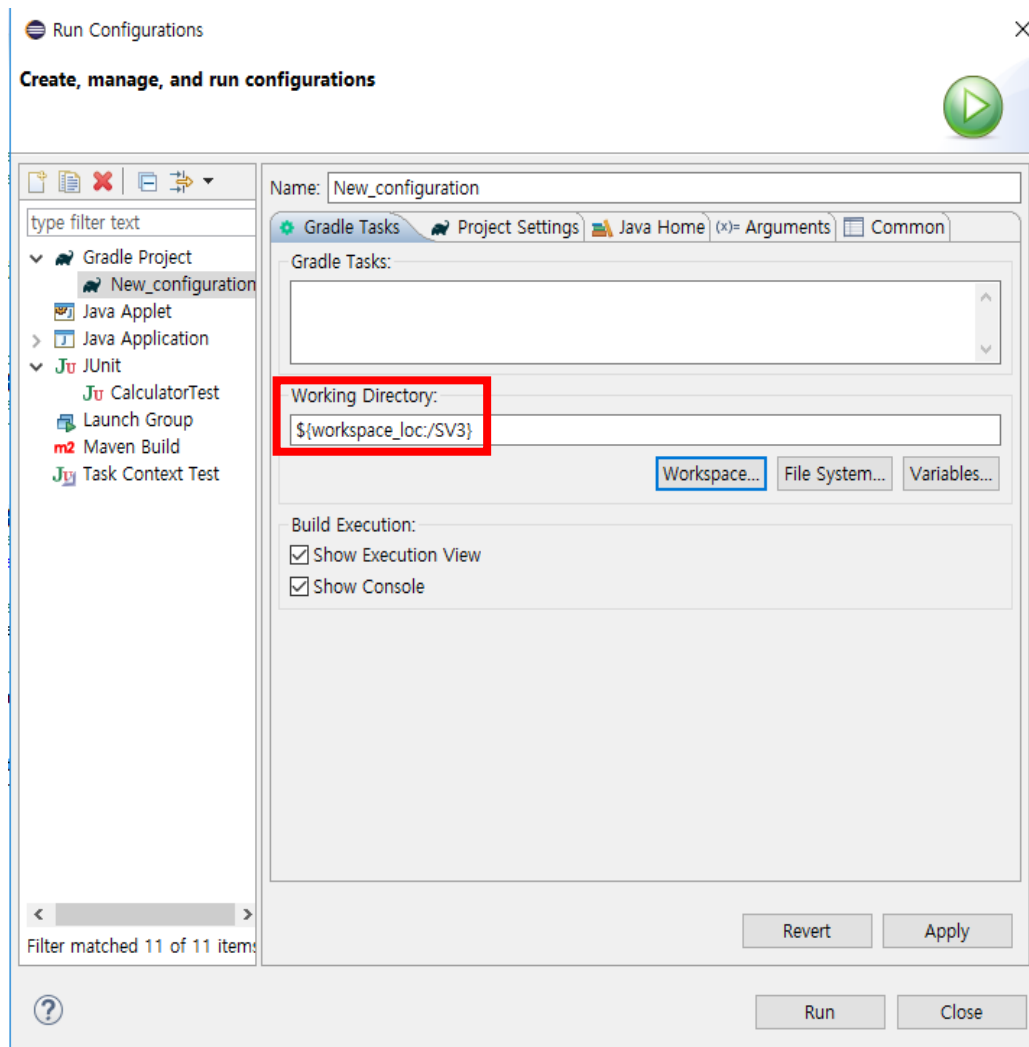
바로 가기

- 바탕 화면
- OneDrive
- 내 PC
- 네트워크

Gradle 빌드

```
Main.java build.gradle x
1 /*
2  * This build file was generated by the Gradle 'init' task.
3  *
4  * This generated file contains a sample Java Library project to get you started.
5  * For more details take a look at the Java Libraries chapter in the Gradle
6  * user guide available at https://docs.gradle.org/4.3/userguide/java_library_plugin.html
7  */
8
9 // Apply the java-library plugin to add support for Java Library
10 apply plugin: 'java-library'
11 apply plugin: 'eclipse'
12
13 // In this section you declare where to find the dependencies of your project
14 repositories {
15     // Use jcenter for resolving your dependencies.
16     // You can declare any Maven/Ivy/file repository here.
17     jcenter()
18 }
19
20 dependencies {
21     // This dependency is exported to consumers, that is to say found on their compile classpath.
22     api 'org.apache.commons:commons-math3:3.6.1'
23
24     // This dependency is used internally, and not exposed to consumers on their own compile classpath.
25     implementation 'com.google.guava:guava:23.0'
26
27     // Use JUnit test framework
28     testImplementation 'junit:junit:4.12'
29 }
```

Gradle 빌드



Gradle 빌드

Console

New_configuration [Gradle Project] in C:\Users\Jongwoo\workspace\SV3 (2018. 3. 20 오후 7:05:35)

Working Directory: C:\Users\Jongwoo\workspace\SV3

Gradle User Home: C:\Users\Jongwoo\gradle

Gradle Distribution: Gradle wrapper from target build

Gradle Version: 4.3

Java Home: C:\Program Files\Java\jre1.8.0_151

JVM Arguments: None

Program Arguments: None

Build Scans Enabled: false

Offline Mode Enabled: false

Gradle Tasks: <run default tasks>

:help

Welcome to Gradle 4.3.

To run a build, run gradle <task> ...

To see a list of available tasks, run gradle tasks

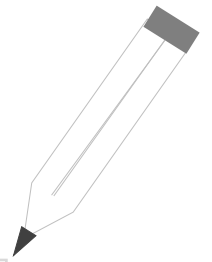
To see a list of command-line options, run gradle --help

To see more detail about a task, run gradle help --task <task>

BUILD SUCCESSFUL in 0s

1 actionable task: 1 executed

Jenkins 이란?



❖ 소개

- CI(continuous integration) 서비스 제공하는 툴
- 다수 사용자들의 작업을 통합 빌드

❖ 기능

- Platform, UI 관리, Source Code 관리, 빌드 관리
- 버전 충돌 방지(GIT) 위한 지속적 저장

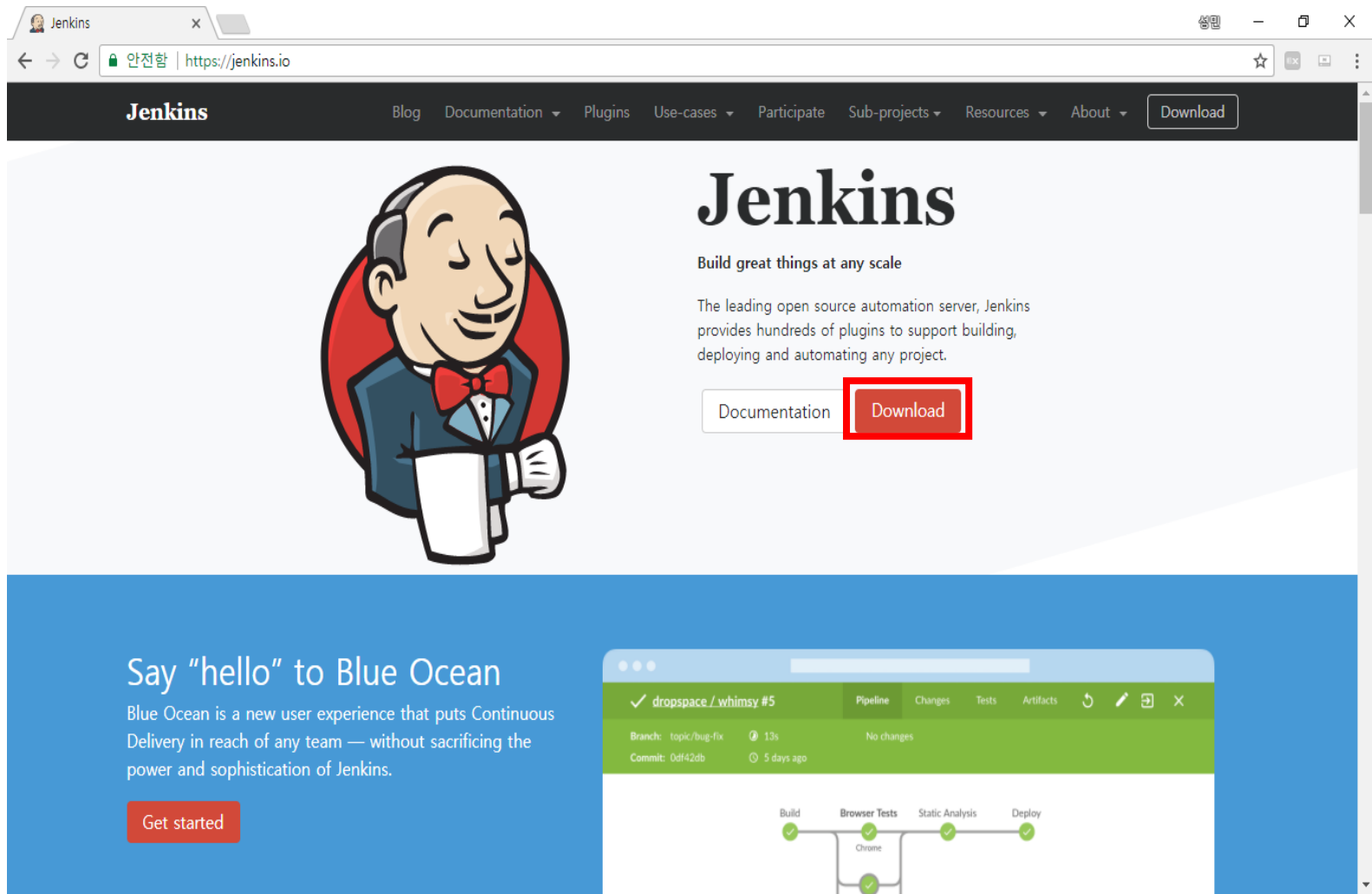
❖ 특징

- 서블릿 컨테이너 서버 기반
- 다양한 Plugin을 통한 확장
- Open Source
- 여러 컴퓨터를 사용한 분산 빌드 & 테스트 가능
- 최근 빌드에 대한 태그 관리

Jenkins 설치

Jenkins 설치

https://jenkins.io



Jenkins 설치

The screenshot shows the Jenkins download page at <https://jenkins.io/download/>. The page features a navigation bar with links for Blog, Documentation, Plugins, Use-cases, Participate, Sub-projects, Resources, and About, along with a Download button. Below the navigation, there are links for Changelog, Upgrade Guide, and Past Releases. The main content area is divided into two columns. The left column is titled 'Deploy Jenkins 2.107.1' and includes a 'Deploy to Azure' button and a list of operating systems for downloading Jenkins 2.107.1. The right column is titled 'Download Jenkins 2.112 for:' and lists various operating systems and platforms. A white callout box with the text '운영체제 확인 후 설치' (Install after checking the operating system) is overlaid on the right column, pointing to the 'Arch Linux' option.

운영체제 확인 후 설치

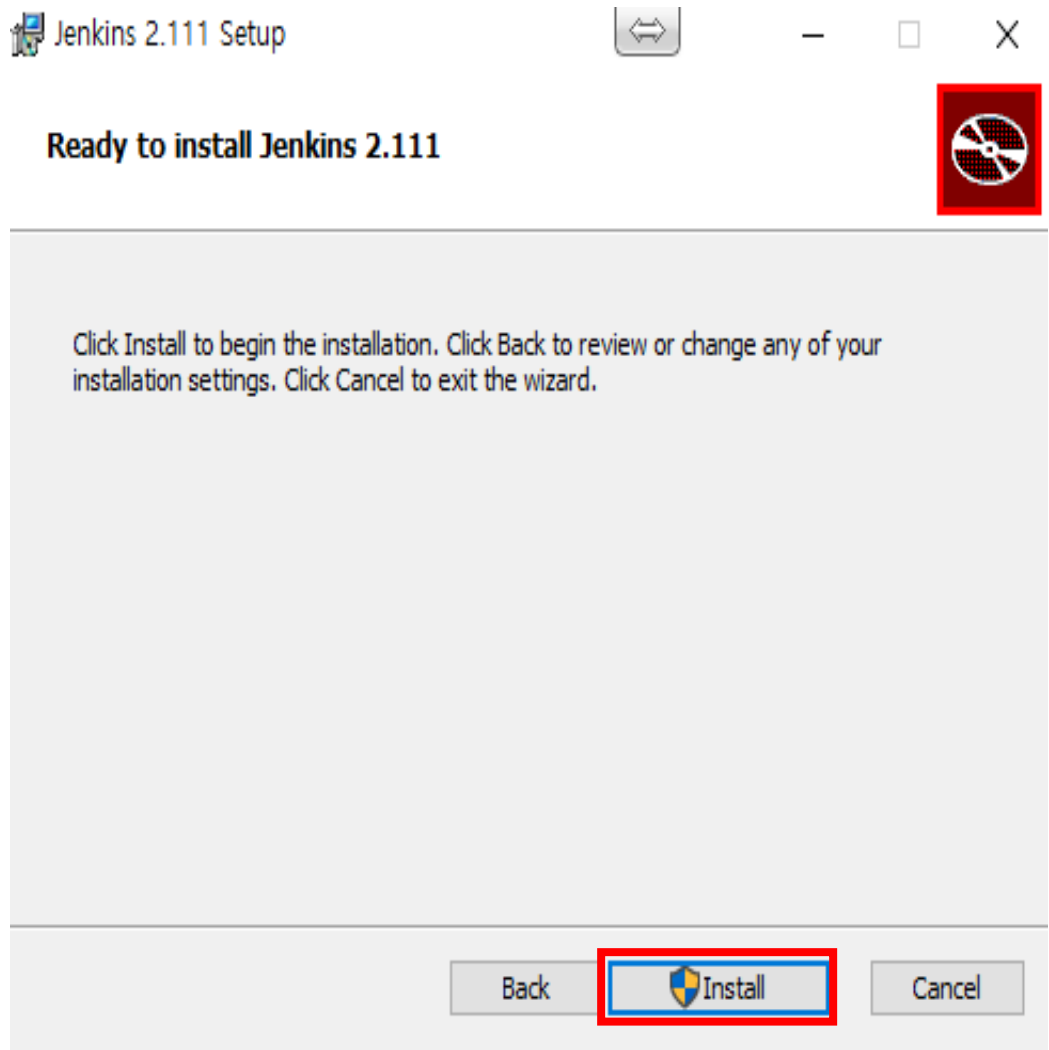
Download Jenkins 2.107.1 for:

- Docker
- FreeBSD
- Gentoo
- Mac OS X
- OpenBSD
- openSUSE
- Red Hat/Fedora/CentOS
- Ubuntu/Debian
- Windows
- Generic Java package (.war)

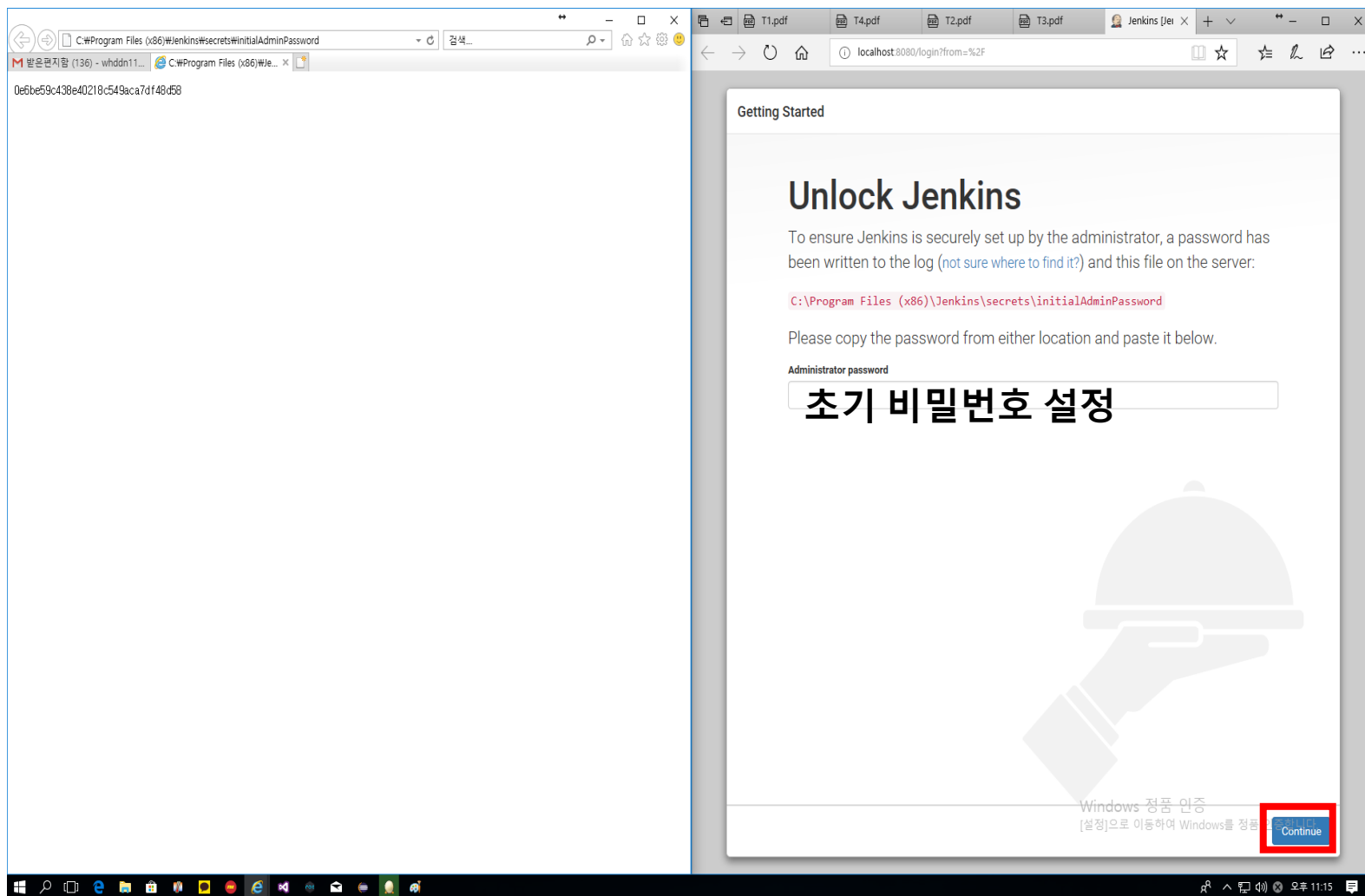
Download Jenkins 2.112 for:

- Arch Linux
- Docker
- FreeBSD
- Gentoo
- Mac OS X
- OpenBSD
- openSUSE
- Red Hat/Fedora/CentOS
- Ubuntu/Debian
- OpenIndiana Hipster
- Windows
- Generic Java package (.war)

Jenkins 설치



Jenkins 설치



Jenkins 설치

Getting Started



Customize Jenkins

Plugins extend Jenkins with additional features to support many different needs.

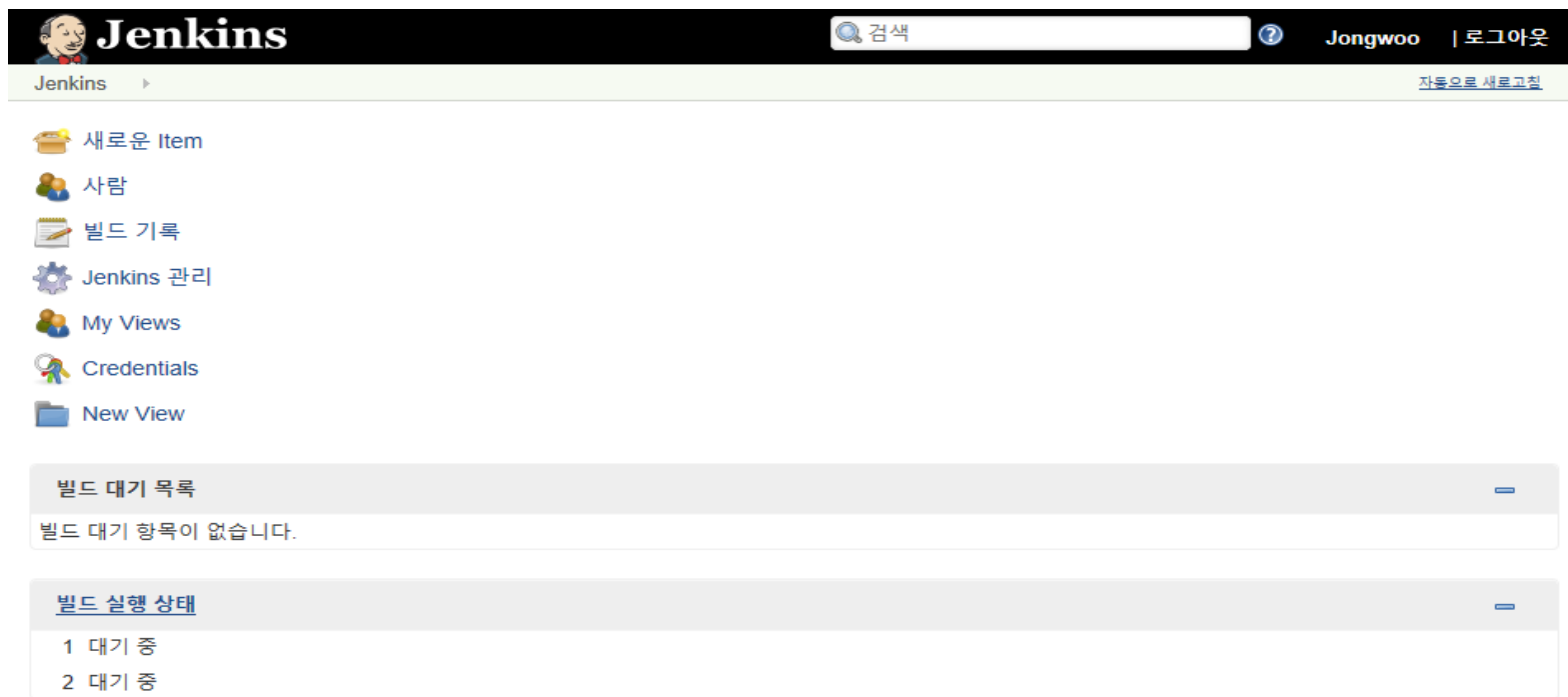
Install suggested plugins

Install plugins the Jenkins community finds most useful.

Select plugins to install

Select and install plugins most suitable for your needs.

Jenkins 설치

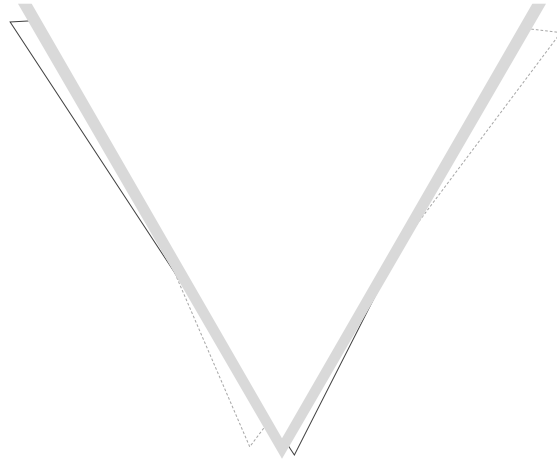


[상세 내용 입력](#)

Jenkins에 오신 것을 환영합니다.

시작하려면 **새 작업**을 만들어 주시기 바랍니다.

Q&A



THANK YOU

