














프로그래밍기초

Chapter 01. Java Installation

Install JDK

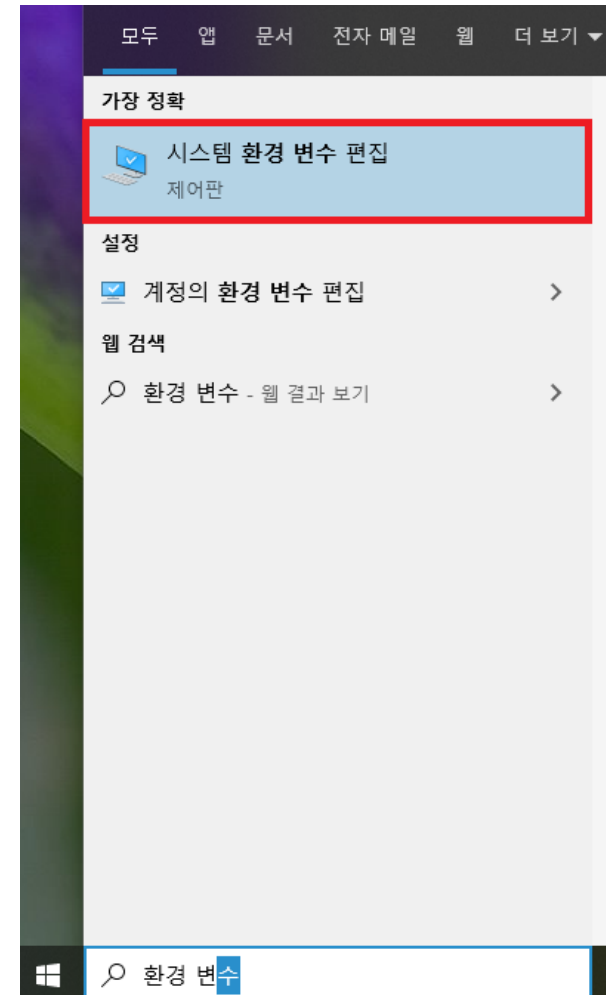
Java SE Development Kit 8u241
This software is licensed under the [Oracle Technology Network License Agreement for Oracle Java SE](#)

Product / File Description	File Size	Download
Linux ARM 32 Hard Float ABI	72.94 MB	 jdk-8u241-linux-arm32-vfp-hflt.tar.gz
Linux ARM 64 Hard Float ABI	69.83 MB	 jdk-8u241-linux-arm64-vfp-hflt.tar.gz
Linux x86 RPM Package	171.28 MB	 jdk-8u241-linux-i586.rpm
Linux x86 Compressed Archive	186.1 MB	 jdk-8u241-linux-i586.tar.gz
Linux x64 RPM Package	170.65 MB	 jdk-8u241-linux-x64.rpm
Linux x64 Compressed Archive	185.53 MB	 jdk-8u241-linux-x64.tar.gz
macOS x64	254.06 MB	 jdk-8u241-macosx-x64.dmg
Solaris SPARC 64-bit (SVR4 package)	133.01 MB	 jdk-8u241-solaris-sparcv9tar.Z
Solaris SPARC 64-bit	94.24 MB	 jdk-8u241-solaris-sparcv9tar.gz
Solaris x64 (SVR4 package)	133.8 MB	 jdk-8u241-solaris-x64tar.Z
Solaris x64	92.01 MB	 jdk-8u241-solaris-x64tar.gz
Windows x86	200.86 MB	 jdk-8u241-windows-i586.exe
Windows x64	210.92 MB	 jdk-8u241-windows-x64.exe

■ <https://www.oracle.com/java/technologies/javase/javase-jdk8-downloads.html>

환경 변수 세팅

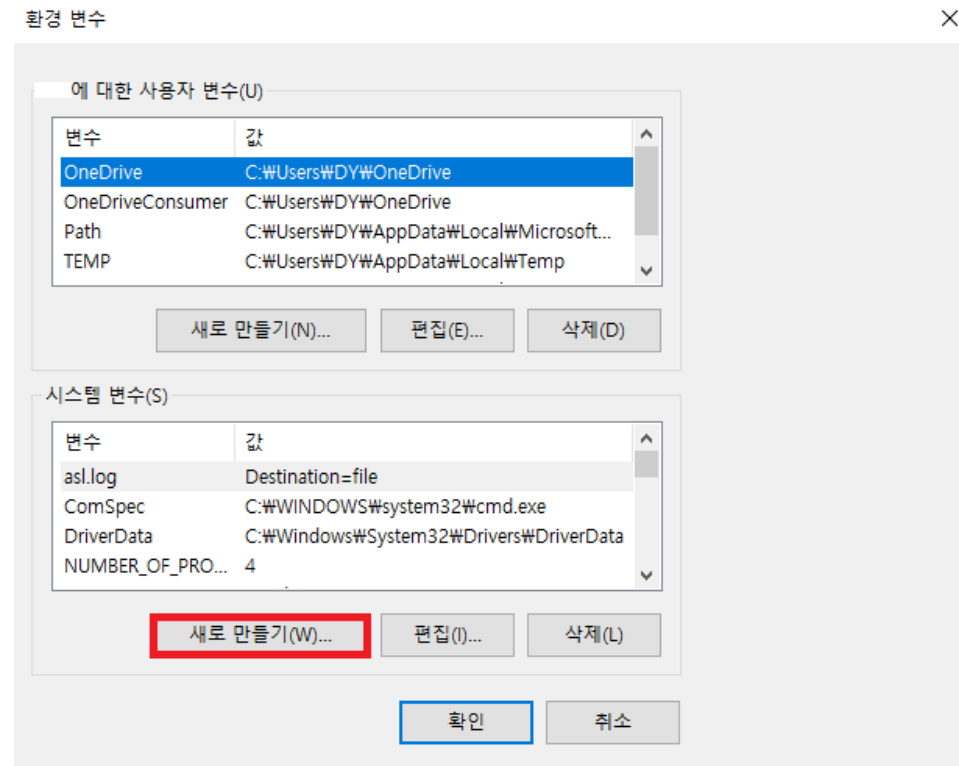
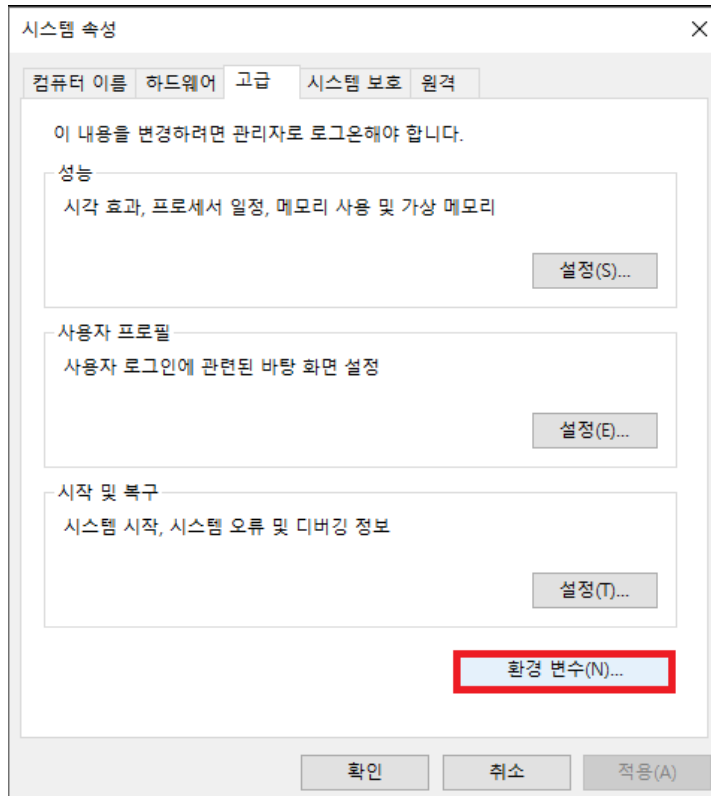
- 윈도우 검색창에 '환경 변수' 검색
- 시스템 환경 변수 편집 클릭



환경 변수 세팅

■ 환경변수 클릭

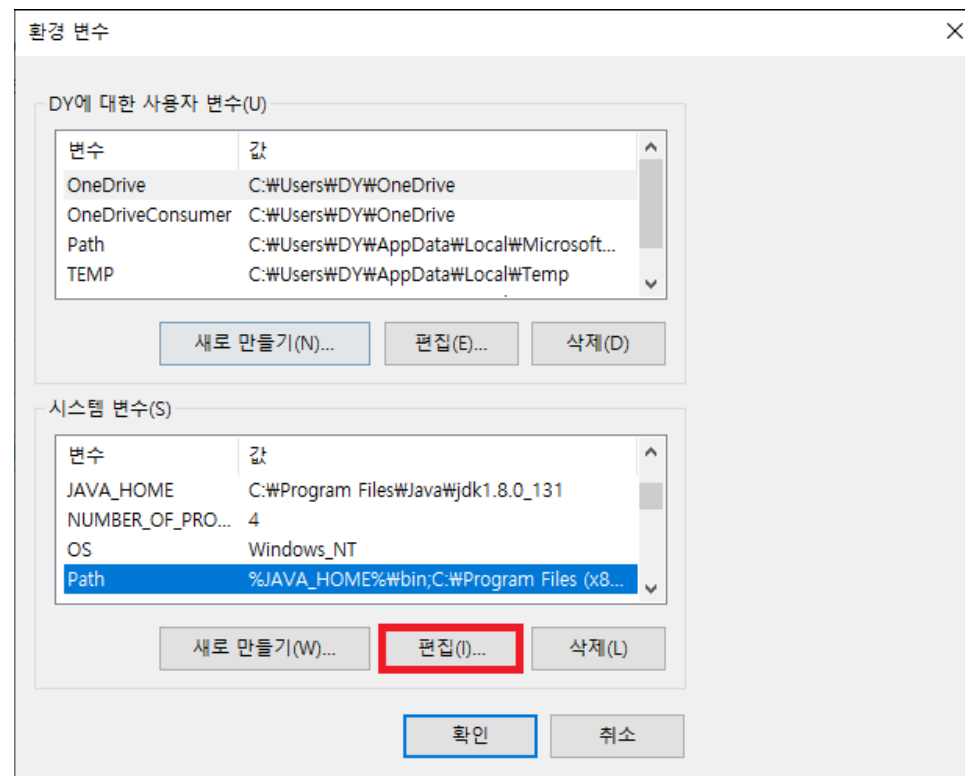
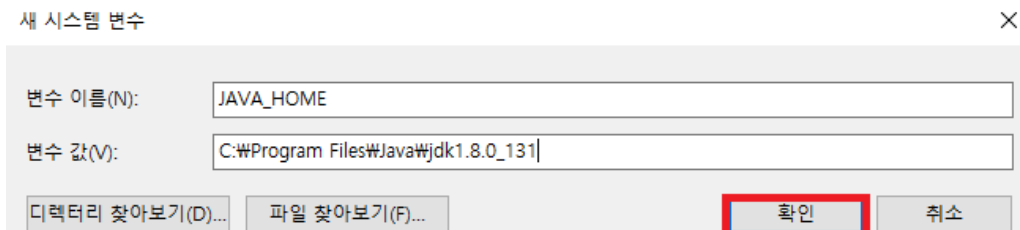
■ 새로 만들기 클릭



환경 변수 세팅

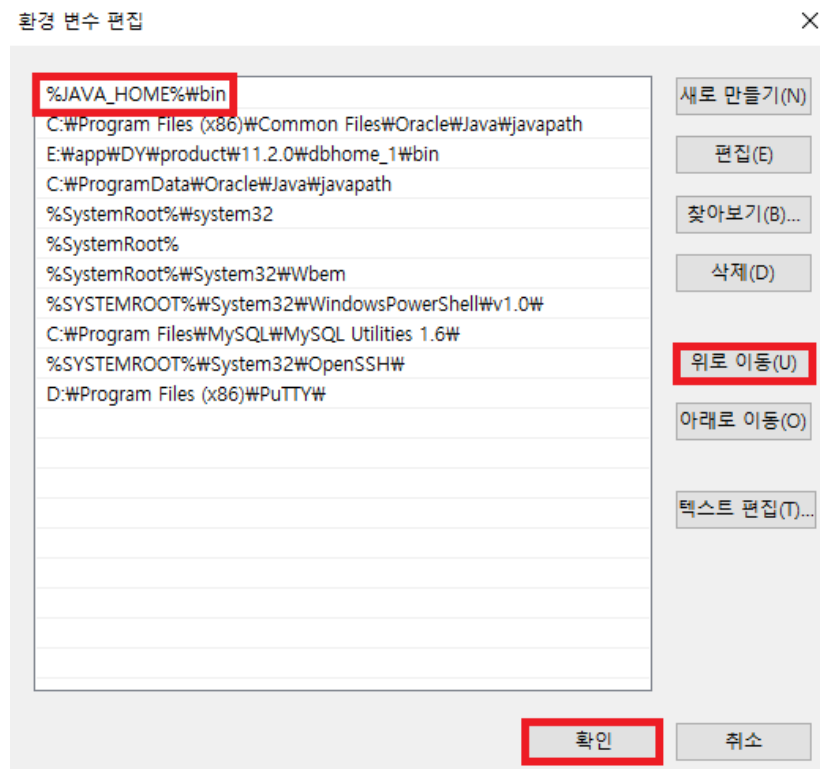
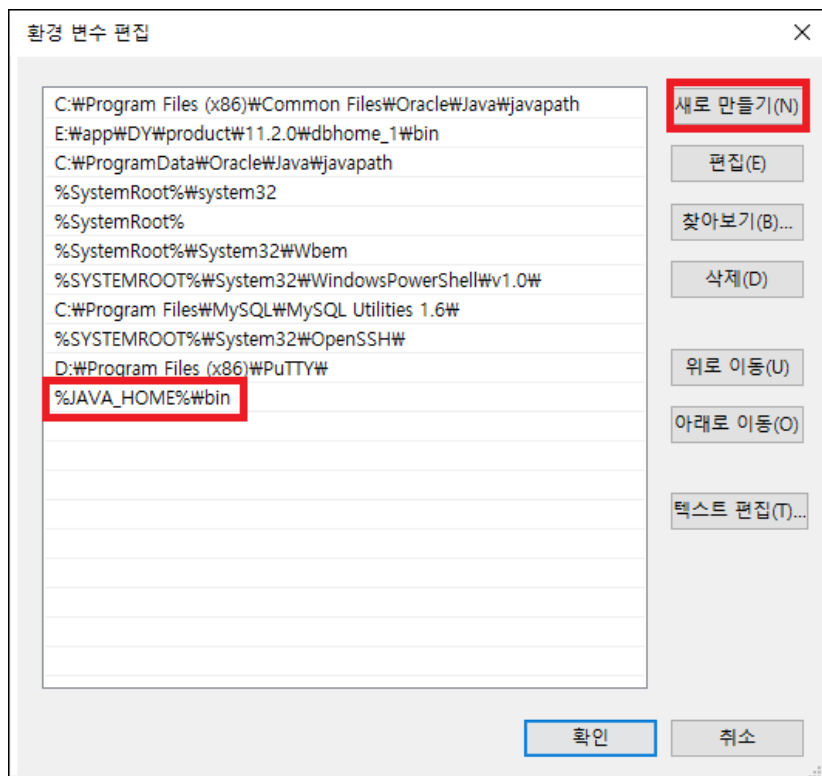
- 변수 이름: JAVA_HOME
- 변수 값: JDK 경로 값
- JDK 버전은 교안과 다를 수 있음

- 시스템변수 편집 클릭



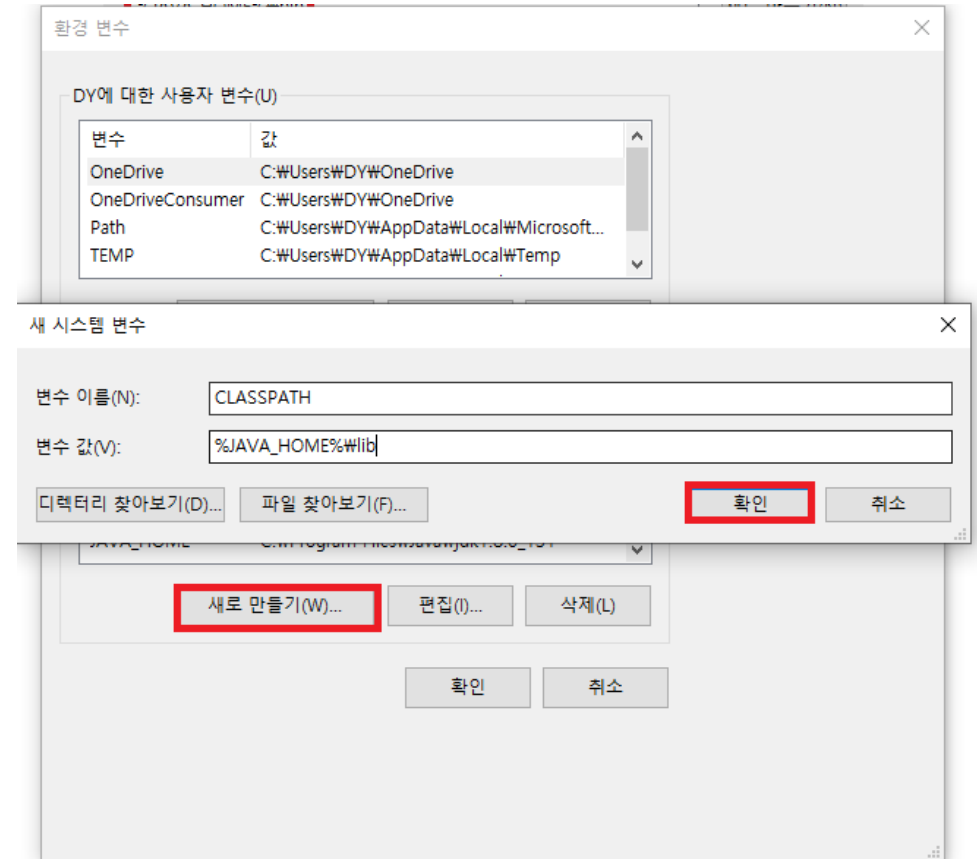
환경 변수 세팅

- 새로 만들기 클릭 후 '%JAVA_HOME%\bin' 입력
- '%JAVA_HOME%\bin'를 최상단에 배치



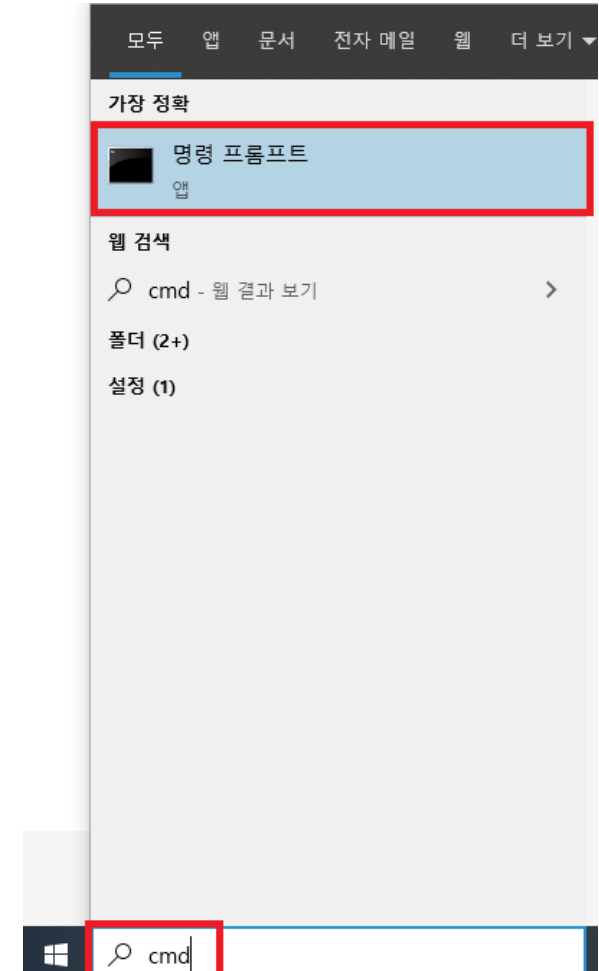
환경 변수 세팅

- 'JAVA_HOME' 만들듯 새 시스템 변수에
- 변수 이름: CLASSPATH
- 변수 값: %JAVA_HOME%\lib 입력



환경 변수 세팅

■ 윈도우 검색 창에 'cmd' 입력하여 명령 프롬프트 실행



환경 변수 세팅

■ 'java' 입력

```
선택 명령 프롬프트
Microsoft Windows [Version 10.0.18362.657]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\WDY>java
```

■ 결과 확인

```
명령 프롬프트
Microsoft Windows [Version 10.0.18362.657]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\WDY>java
사용법: java [-options] class [args...]
        (클래스 실행)
또는 java [-options] -jar jarfile [args...]
        (jar 파일 실행)
여기서 options는 다음과 같습니다.
    -d32      사용 가능한 경우 32비트 데이터 모델을 사용합니다.
    -d64      사용 가능한 경우 64비트 데이터 모델을 사용합니다.
    -server   "server" VM을 선택합니다.
              기본 VM은 server입니다..

    -cp <디렉토리 및 zip/jar 파일의 클래스 검색 경로>
    -classpath <디렉토리 및 zip/jar 파일의 클래스 검색 경로>
              클래스 파일을 검색할 ;(으)로 구분된 디렉토리,
              JAR 아카이브 및 ZIP 아카이브 목록입니다.
    -D<name>=<value>
              시스템 속성을 설정합니다.
    -verbose: [class|gc|jni]
              상세 정보 출력을 사용으로 설정합니다.
    -version   제품 버전을 인쇄한 후 종료합니다.
    -version:<value>
              경고: 이 기능은 사용되지 않으며
              이후 릴리스에서 제거됩니다.
              실행할 버전을 지정해야 합니다.
```

환경 변수 세팅

■ 'javac' 입력

```
선택 명령 프롬프트
Microsoft Windows [Version 10.0.18362.657]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\WDY>javac
```

■ 결과 확인

```
명령 프롬프트
Microsoft Windows [Version 10.0.18362.657]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\WDY>javac
Usage: javac <options> <source files>
where possible options include:
  -g               Generate all debugging info
  -g:none          Generate no debugging info
  -g:{lines,vars,source}  Generate only some debugging info
  -nowarn          Generate no warnings
  -verbose         Output messages about what the compiler is doing
  -deprecation     Output source locations where deprecated APIs are used
  -classpath <path>  Specify where to find user class files and annotation processors
  -cp <path>        Specify where to find user class files and annotation processors
  -sourcepath <path> Specify where to find input source files
  -bootclasspath <path>  Override location of bootstrap class files
  -extdirs <dirs>      Override location of installed extensions
  -endorseddirs <dirs>  Override location of endorsed standards path
  -proc:{none,only}  Control whether annotation processing and/or compilation is done.
  -processor <class1>[,<class2>,<class3>...] Names of the annotation processors to run; bypasses default discovery process
  -processorpath <path> Specify where to find annotation processors
  -parameters      Generate metadata for reflection on method parameters
  -d <directory>    Specify where to place generated class files
  -s <directory>    Specify where to place generated source files
  -h <directory>    Specify where to place generated native header files
  -implicit:{none,class} Specify whether or not to generate class files for implicitly referenced files
  -encoding <encoding> Specify character encoding used by source files
  -source <release>  Provide source compatibility with specified release
  -target <release>  Generate class files for specific VM version
```

Install IDE(STS)

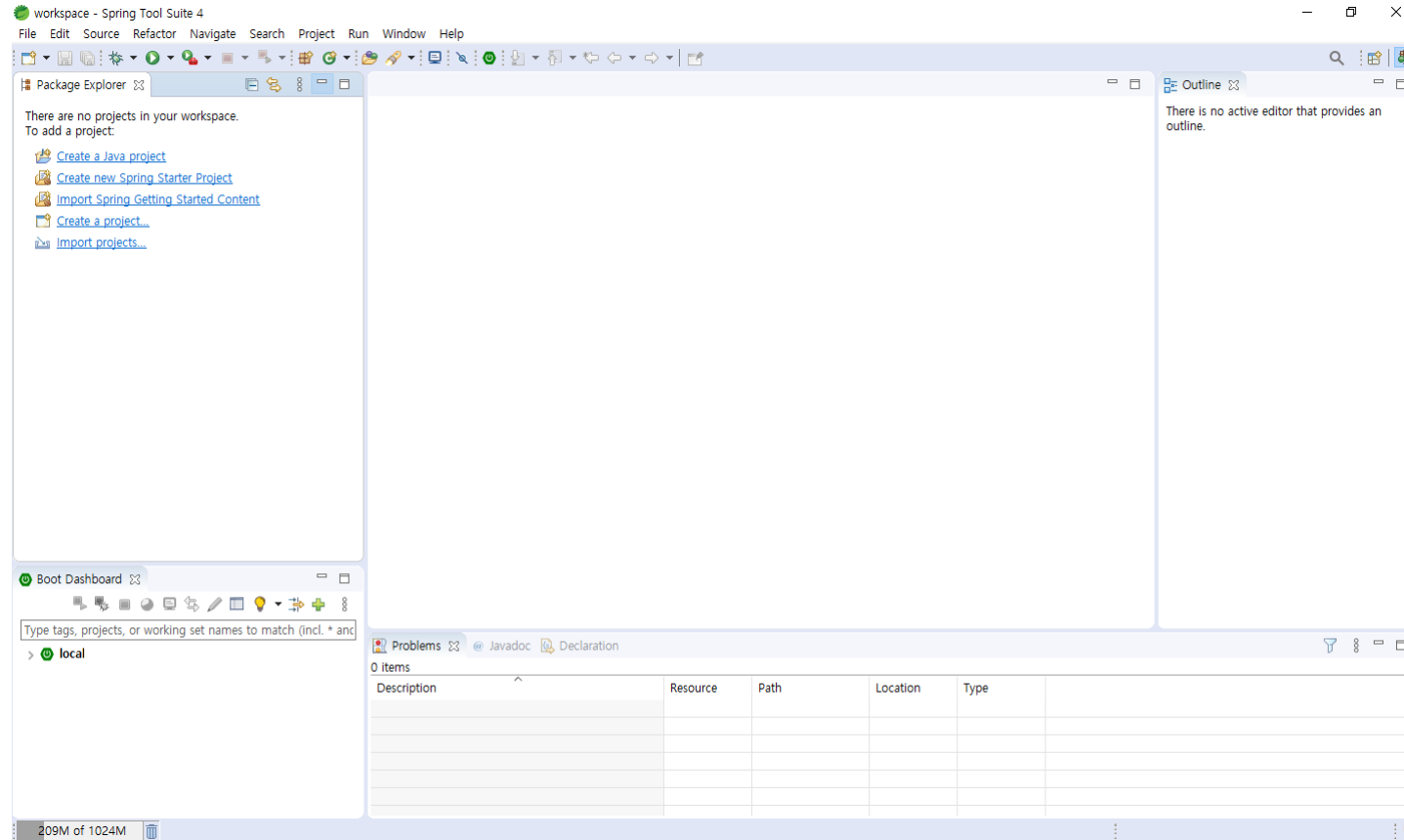
■ <https://spring.io/tools>



The image shows the landing page for Spring Tools 4. At the top, there's a navigation bar with links: Why Spring, Learn, Projects, Training, Support, and Community. The main heading is "Spring Tools 4" with a green gear icon. Below it, a paragraph states: "Spring Tools 4 is the next generation of Spring tooling for your favorite coding environment. Largely rebuilt from scratch, it provides world-class support for developing Spring-based enterprise applications, whether you prefer Eclipse, Visual Studio Code, or Theia IDE." Below this, there's a section titled "Spring Tools 4 for Eclipse" with the subtitle "The all-new Spring Tool Suite 4. Free. Open source." Underneath are three buttons for "LINUX 64-BIT", "MACOS 64-BIT", and "WINDOWS 64-BIT". To the right, there's a screenshot of the Spring Tool Suite 4 IDE interface, showing a project explorer, a code editor with a Java file, and a console window.

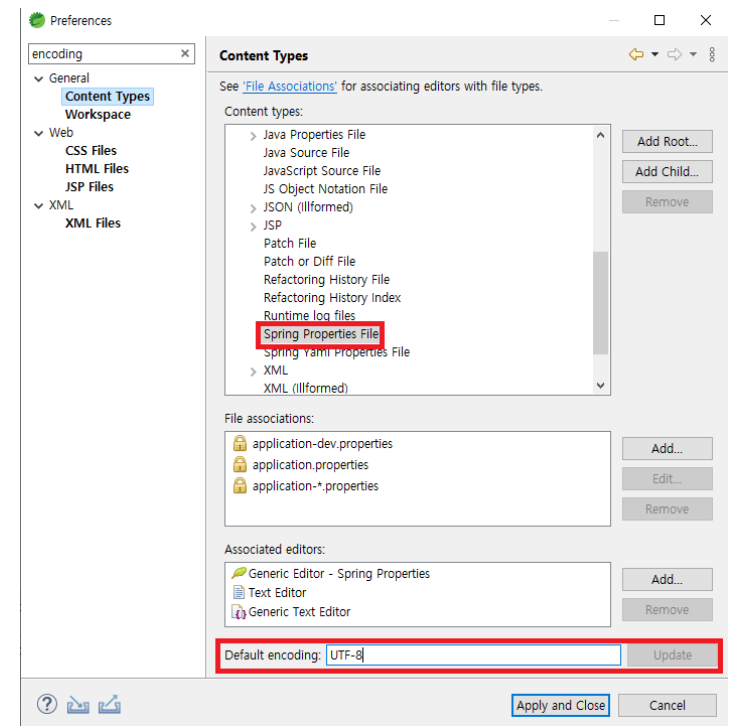
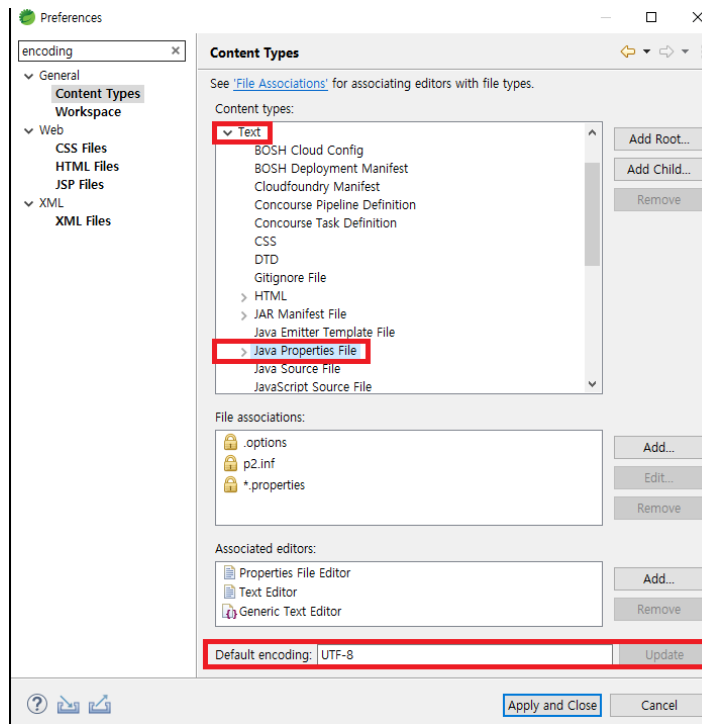
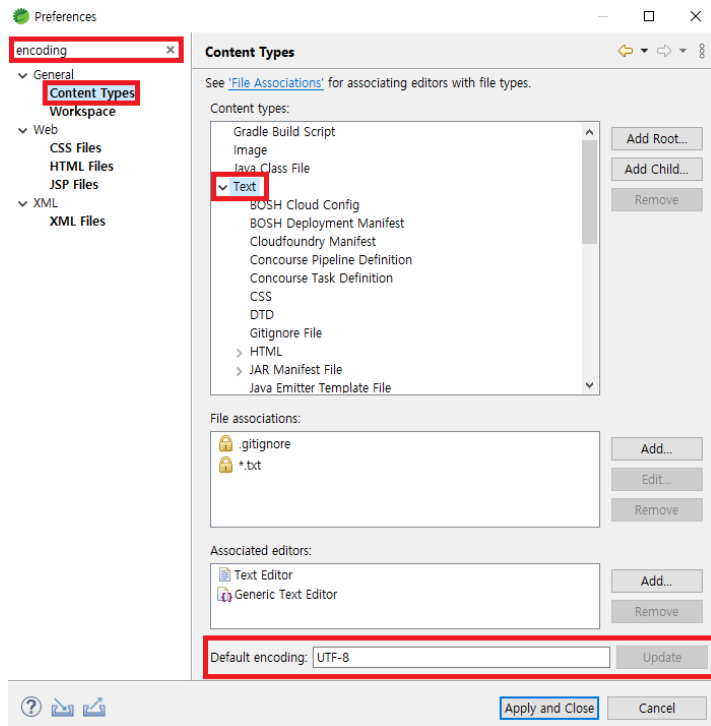
STS 실행

■ STS 실행 화면



IDE Encoding 세팅

- Window – preferences – encoding 검색
- Default encoding: 'UTF-8' 입력 후 update



IDE Encoding 세팅

- Window – preferences – encoding 검색
- Workspace/CSS Files/HTM Files에 ‘UTF-8’ 적용

