

실습환경 구축

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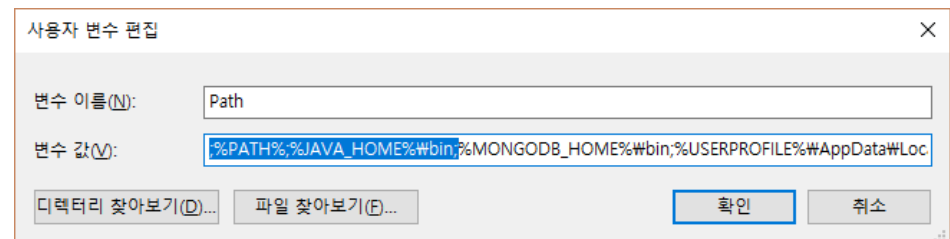
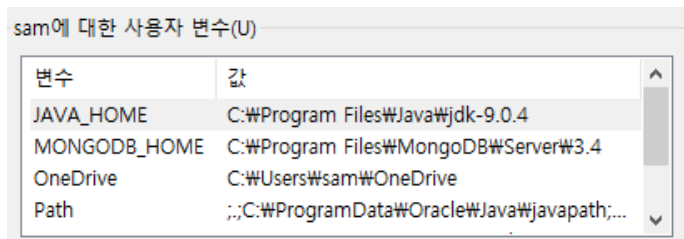
JDK Download / 환경변수 설정

Java Platform (JDK)

윈도 키 + Pause/Break 키 => 환경변수 설정 (사용자 변수)

JAVA_HOME = C:\Program Files\Java\jdk-9.0.4

PATH = ;%PATH%;%JAVA_HOME%\bin;



검색 > cmd > 명령 프롬프트

```
Microsoft Windows [Version 10.0.17134.228]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\sam>javac
Usage: javac <options> <source files>
where possible options include:
  @<filename>          Read options and filenames from file
  -Akey[=value]        Options to pass to annotation processors
  --add-modules <module>(<module>)*
```

환경변수 설정을 변경한 경우 이미 도스창이 띄워져 있었다면 창을 닫고 다시 열어야 변경한 환경변수가 적용된다!

Tomcat 다운로드

<http://tomcat.apache.org/>

The screenshot shows the Apache Tomcat download page in a web browser. The address bar shows the URL <https://tomcat.apache.org/download-90.cgi>. The left sidebar contains a navigation menu with the following items: Which version?, Tomcat 9, Tomcat 8, Tomcat 7, Tomcat Connectors, Tomcat Native, Taglibs, Archives, Documentation, Tomcat 9.0 (highlighted with a red box), Tomcat 8.5, Tomcat 8.0, Tomcat 7.0, Tomcat Connectors, Tomcat Native, Wiki, Migration Guide, Presentations, Problems?, Security Reports, Find help, FAQ, Mailing Lists, Bug Database, and RSS. The main content area has a heading "download, and make sure it is the same as ours." followed by a "Mirrors" section. The mirrors section states: "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." Below this, there is a dropdown menu for "Other mirrors:" with the value <http://apache.mirror.cdnetworks.com/> and a "Change" button. The "9.0.10" section is highlighted with a grey bar. It contains the text: "Please see the [README](#) file for packaging information. It explains what every distribution contains." Below this is the "Binary Distributions" section, which lists several options: Core:

- [zip \(pgp, sha1, sha512\)](#)
- [tar.gz \(pgp, sha1, sha512\)](#)
- [32-bit Windows zip \(pgp, sha1, sha512\)](#)
- [64-bit Windows zip \(pgp, sha1, sha512\)](#)
- [32-bit/64-bit Windows Service Installer \(pgp, sha1, sha512\)](#) (highlighted with a red box)

Full documentation:

- [tar.gz \(pgp, sha1, sha512\)](#)

Deployer:

- [zip \(pgp, sha1, sha512\)](#)

The bottom of the browser window shows a taskbar with the file "apache-tomcat-9.....exe" and a button labeled "전체 보기" (View all).

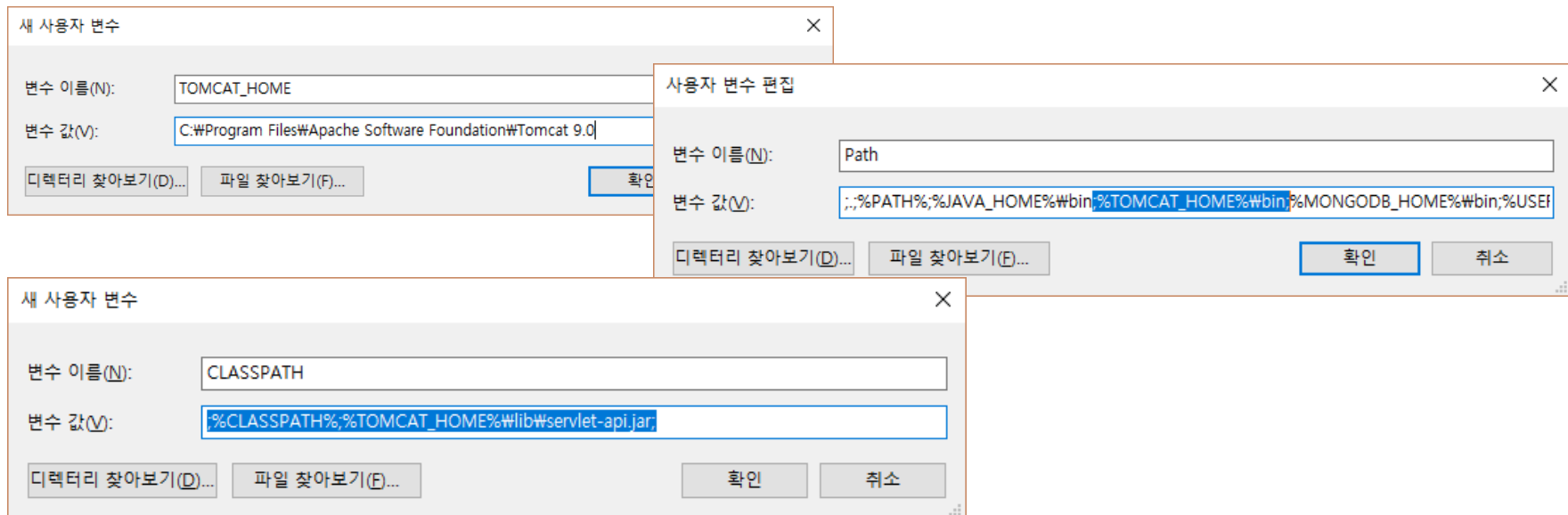
Tomcat 설치

윈도우 키 + Pause/Break 키 > [고급 시스템 설정] > [환경 변수]
[사용자 변수] 창에서

TOMCAT_HOME = C:\Program Files\Apache Software Foundation\Tomcat 8.5 <= your path

PATH = ;.;%PATH%;%TOMCAT_HOME%\bin;

CLASSPATH = ;%CLASSPATH%;%TOMCAT_HOME%\lib\servlet-api.jar;



실행 예

99energy.html을 C:\Program Files\Apache Software Foundation\Tomcat 8.5\webapps\에 복사

만일 html 파일을 wp/html5/ch1 디렉토리에 분류하여 저장하고 싶다면

C:\Program Files\Apache Software Foundation\Tomcat 8.5\webapps\chapter1

디렉토리 생성 후 99energy.html을 거기에 복사!

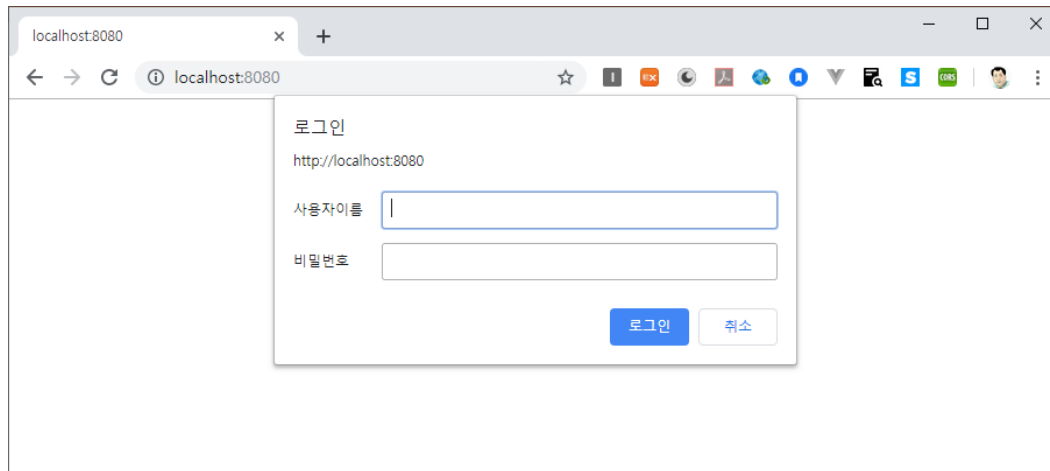
브라우저 주소 창에 `http://localhost:8080/wp/html5/ch1/99energy.html` 입력

참고사항:

- 반드시 C:\Program Files\Apache Software Foundation\Tomcat 8.5\webapps 디렉토리에 배치 (deploy)해야 한다
- 소스를 수정했는데 반영이 안될 때는 Tomcat을 재가동해야 한다
(\webapps에 redeploy하는 경우 톰캣 재가동 불필요. \lib에 jar 파일 추가는 톰캣 재가동 해야 함)

문제해결

보통 톰캣 설치 후 발생하는 첫 문제는 접속 포트의 문제로 아래와 같은 화면이 뜬다.



[인증 필요]란 오류 뜨면

톰캣 아래의 conf폴더의 server.xml파일 내에서 Connector 포트를 8080값에서 다른 값(예: 8090)으로 변경하면 된다.


```
67 Define a non-SSL/TLS HTTP/1.1 Connector on port 8080
68 -->
69 <Connector port="8080" protocol="HTTP/1.1"
70         connectionTimeout="20000"
71         redirectPort="8443" />
72
73 <!-- A "Connector" using the shared thread pool-->
74 <!--
75 <Connector executor="ThreadPool"
76         port="8080" protocol="HTTP/1.1"
77 <Connector port="8090" protocol="HTTP/1.1"
78         connectionTimeout="20000"
79         redirectPort="8443" />
```

Apache Tomcat/9.0.24


localhost:8090

Home Documentation Configuration Examples Wiki Mailing Lists Find Help

Apache Tomcat/9.0.24

 **APACHE**™ SOFTWARE FOUNDATION
<http://www.apache.org/>

If you're seeing this, you've successfully installed Tomcat. Congratulations!



Recommended Reading:
[Security Considerations How-To](#)
[Manager Application How-To](#)
[Clustering/Session Replication How-To](#)

[Server Status](#)
[Manager App](#)
[Host Manager](#)

Developer Quick Start
[Tomcat Setup](#)
[First Web Application](#)
[Realms & AAA](#)
[JDBC DataSources](#)
[Examples](#)
[Servlet Specifications](#)
[Tomcat Versions](#)

Managing Tomcat

For security, access to the [manager webapp](#) is restricted. Users are defined in:

```
$CATALINA_HOME/conf/tomcat-users.xml
```

In Tomcat 9.0 access to the manager application is split between different users.
[Read more...](#)

[Release Notes](#)
[Changelog](#)
[Migration Guide](#)
[Security Notices](#)

Documentation

[Tomcat 9.0 Documentation](#)
[Tomcat 9.0 Configuration](#)
[Tomcat Wiki](#)

Find additional important configuration information in:

```
$CATALINA_HOME/RUNNING.txt
```

Developers may be interested in:

[Tomcat 9.0 Bug Database](#)
[Tomcat 9.0 JavaDocs](#)
[Tomcat 9.0 SVN Repository](#)

Getting Help

FAQ and Mailing Lists

The following mailing lists are available:

[tomcat-announce](#)
Important announcements, releases, security vulnerability notifications. (Low volume).

[tomcat-users](#)
User support and discussion

[taglibs-user](#)
User support and discussion for [Apache Taglibs](#)

[tomcat-dev](#)
Development mailing list, including commit messages

Visual Studio Code – 편집기 설치

<https://code.visualstudio.com/>

Visual Studio Code Docs Updates Blog Community Extensions FAQ

Download

Version 1.26 is now available! Read about the new features and fixes from July.

Code editing. Redefined.

Free. Open source. Runs everywhere.

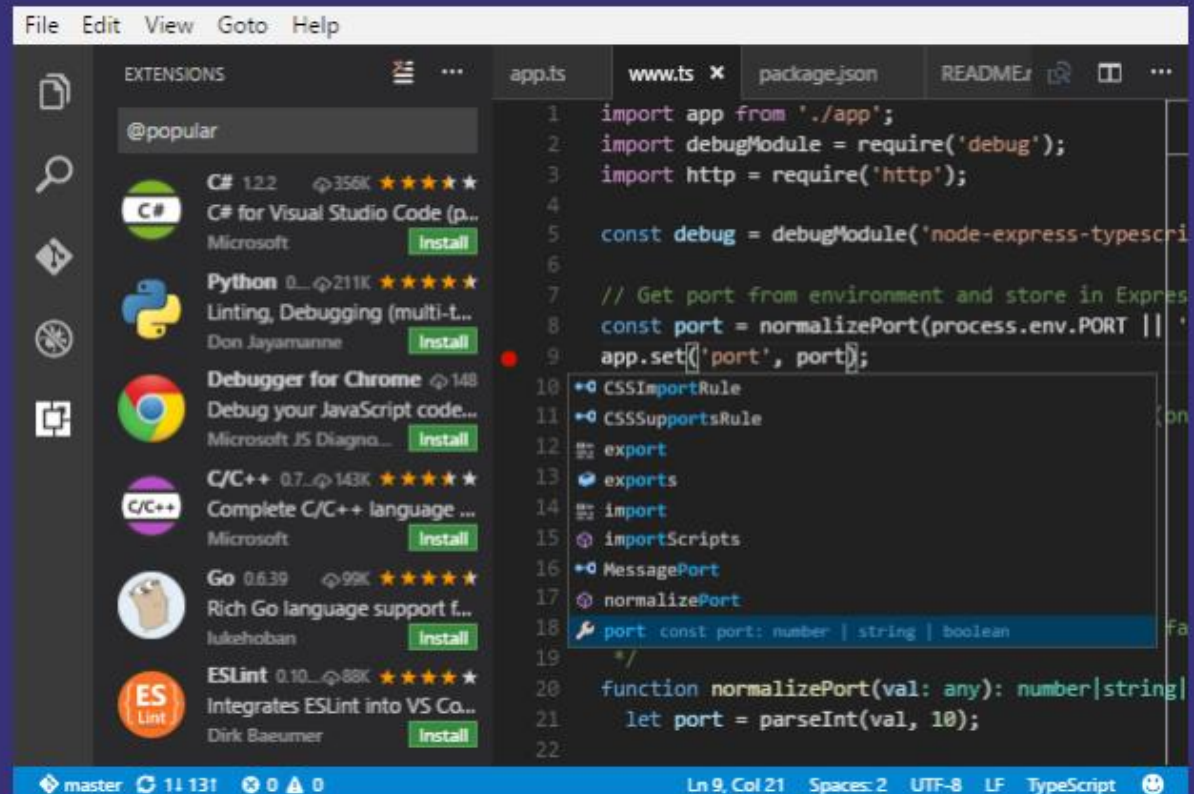
Download for Windows

Stable Build

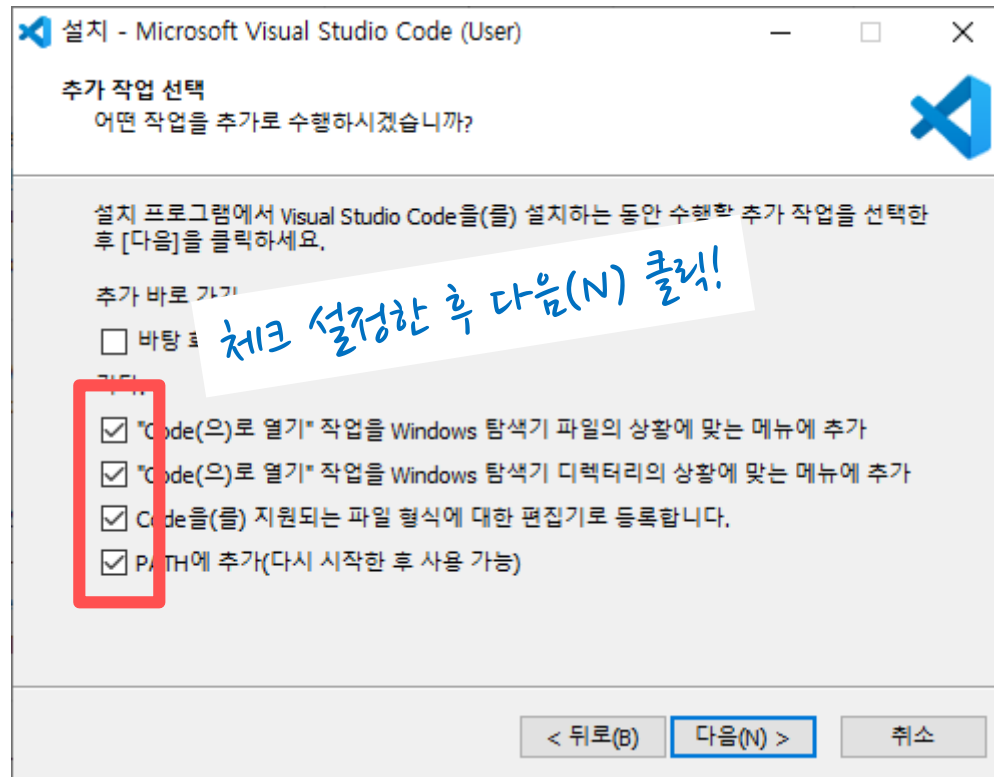


Other platforms and Insiders Edition

By using VS Code, you agree to its
license and privacy statement.



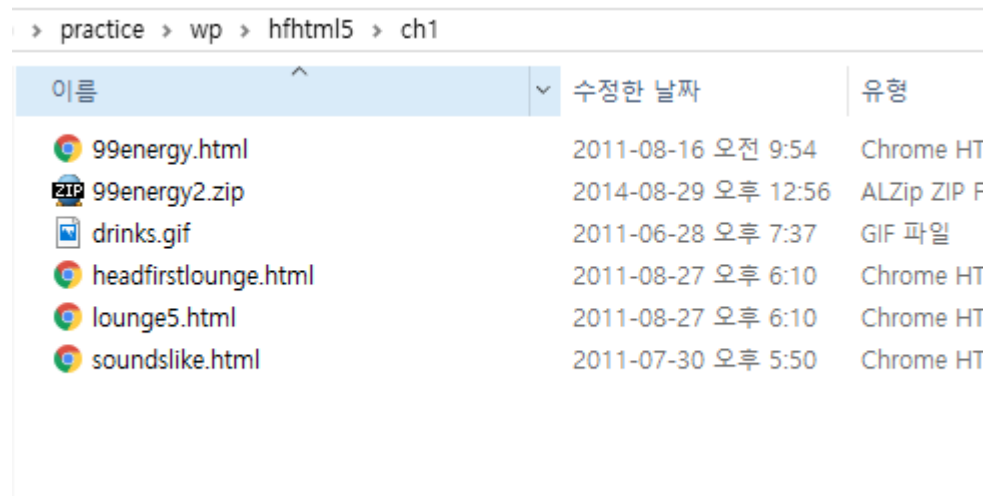
Visual Studio Code 설치 시 유의사항



VS Code 활용 팁

Visual Studio Code에서 소스 코드 편집을 위해 해당 폴더에서 우클릭!

-> 팝업 메뉴에서 Open with Code 선택



Q & A

