

# 서버프로그램구현 이영은

2022\_04\_20

# [자바설치하기]

## 1) 자바 설치되어있는지 확인

```
Amazon Linux 2 AMI
https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-172-31-39-206 ~]$ java-version
-bash: java-version: command not found
[ec2-user@ip-172-31-39-206 ~]$
```

## 2) 설치할 수 있는 자바 버전 확인하기

```
Amazon Linux 2 AMI
https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-172-31-39-206 ~]$ java-version
-bash: java-version: command not found
[ec2-user@ip-172-31-39-206 ~]$ sudo yum list | grep jdk
copy-jdk-configs.noarch 3.9-10.amzn2 amzn2-core
java-1.7.0-openjdk.x86_64 1:1.7.0.261-2.6.22.2.amzn2.0.2 amzn2-core
java-1.7.0-openjdk-accessibility.x86_64 1:1.7.0.261-2.6.22.2.amzn2.0.2 amzn2-core
java-1.7.0-openjdk-demo.x86_64 1:1.7.0.261-2.6.22.2.amzn2.0.2 amzn2-core
java-1.7.0-openjdk-devel.x86_64 1:1.7.0.261-2.6.22.2.amzn2.0.2 amzn2-core
java-1.7.0-openjdk-headless.x86_64 1:1.7.0.261-2.6.22.2.amzn2.0.2 amzn2-core
java-1.7.0-openjdk-javadoc.noarch 1:1.7.0.261-2.6.22.2.amzn2.0.2 amzn2-core
java-1.7.0-openjdk-src.x86_64 1:1.7.0.261-2.6.22.2.amzn2.0.2 amzn2-core
java-1.8.0-openjdk.x86_64 1:1.8.0.312.b07-1.amzn2.0.2 amzn2-core
java-1.8.0-openjdk-accessibility.x86_64 1:1.8.0.312.b07-1.amzn2.0.2 amzn2-core
java-1.8.0-openjdk-accessibility-debug.x86_64 1:1.8.0.312.b07-1.amzn2.0.2 amzn2-core
java-1.8.0-openjdk-debug.x86_64 1:1.8.0.312.b07-1.amzn2.0.2 amzn2-core
java-1.8.0-openjdk-demo.x86_64 1:1.8.0.312.b07-1.amzn2.0.2 amzn2-core
java-1.8.0-openjdk-demo-debug.x86_64 1:1.8.0.312.b07-1.amzn2.0.2 amzn2-core
java-1.8.0-openjdk-devel.x86_64 1:1.8.0.312.b07-1.amzn2.0.2 amzn2-core
java-1.8.0-openjdk-devel-debug.x86_64 1:1.8.0.312.b07-1.amzn2.0.2 amzn2-core
java-1.8.0-openjdk-headless.x86_64 1:1.8.0.312.b07-1.amzn2.0.2 amzn2-core
java-1.8.0-openjdk-headless-debug.x86_64 1:1.8.0.312.b07-1.amzn2.0.2 amzn2-core
java-1.8.0-openjdk-javadoc.noarch 1:1.8.0.312.b07-1.amzn2.0.2 amzn2-core
java-1.8.0-openjdk-javadoc-debug.noarch 1:1.8.0.312.b07-1.amzn2.0.2 amzn2-core
java-1.8.0-openjdk-javadoc-zip.noarch 1:1.8.0.312.b07-1.amzn2.0.2 amzn2-core
java-1.8.0-openjdk-javadoc-zip-debug.noarch 1:1.8.0.312.b07-1.amzn2.0.2 amzn2-core
java-1.8.0-openjdk-src.x86_64 1:1.8.0.312.b07-1.amzn2.0.2 amzn2-core
java-1.8.0-openjdk-src-debug.x86_64 1:1.8.0.312.b07-1.amzn2.0.2 amzn2-core
ldapjdk.noarch 4.19-5.amzn2 amzn2-core
ldapjdk-javadoc.noarch 4.19-5.amzn2 amzn2-core
[ec2-user@ip-172-31-39-206 ~]$
```

## 3) JDK1.8 설치하기

```
Amazon Linux 2 AMI
https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-172-31-39-206 ~]$ java-version
-bash: java-version: command not found
[ec2-user@ip-172-31-39-206 ~]$ sudo yum list | grep jdk
copy-jdk-configs.noarch 3.9-10.amzn2 amzn2-core
java-1.7.0-openjdk.x86_64 1:1.7.0.261-2.6.22.2.amzn2.0.2 amzn2-core
java-1.7.0-openjdk-accessibility.x86_64 1:1.7.0.261-2.6.22.2.amzn2.0.2 amzn2-core
java-1.7.0-openjdk-demo.x86_64 1:1.7.0.261-2.6.22.2.amzn2.0.2 amzn2-core
java-1.7.0-openjdk-devel.x86_64 1:1.7.0.261-2.6.22.2.amzn2.0.2 amzn2-core
java-1.7.0-openjdk-headless.x86_64 1:1.7.0.261-2.6.22.2.amzn2.0.2 amzn2-core
java-1.7.0-openjdk-javadoc.noarch 1:1.7.0.261-2.6.22.2.amzn2.0.2 amzn2-core
java-1.7.0-openjdk-src.x86_64 1:1.7.0.261-2.6.22.2.amzn2.0.2 amzn2-core
java-1.8.0-openjdk.x86_64 1:1.8.0.312.b07-1.amzn2.0.2 amzn2-core
java-1.8.0-openjdk-accessibility.x86_64 1:1.8.0.312.b07-1.amzn2.0.2 amzn2-core
java-1.8.0-openjdk-accessibility-debug.x86_64 1:1.8.0.312.b07-1.amzn2.0.2 amzn2-core
java-1.8.0-openjdk-debug.x86_64 1:1.8.0.312.b07-1.amzn2.0.2 amzn2-core
java-1.8.0-openjdk-demo.x86_64 1:1.8.0.312.b07-1.amzn2.0.2 amzn2-core
java-1.8.0-openjdk-demo-debug.x86_64 1:1.8.0.312.b07-1.amzn2.0.2 amzn2-core
java-1.8.0-openjdk-devel.x86_64 1:1.8.0.312.b07-1.amzn2.0.2 amzn2-core
java-1.8.0-openjdk-devel-debug.x86_64 1:1.8.0.312.b07-1.amzn2.0.2 amzn2-core
java-1.8.0-openjdk-headless.x86_64 1:1.8.0.312.b07-1.amzn2.0.2 amzn2-core
java-1.8.0-openjdk-headless-debug.x86_64 1:1.8.0.312.b07-1.amzn2.0.2 amzn2-core
java-1.8.0-openjdk-javadoc.noarch 1:1.8.0.312.b07-1.amzn2.0.2 amzn2-core
java-1.8.0-openjdk-javadoc-debug.noarch 1:1.8.0.312.b07-1.amzn2.0.2 amzn2-core
java-1.8.0-openjdk-javadoc-zip.noarch 1:1.8.0.312.b07-1.amzn2.0.2 amzn2-core
java-1.8.0-openjdk-javadoc-zip-debug.noarch 1:1.8.0.312.b07-1.amzn2.0.2 amzn2-core
java-1.8.0-openjdk-src.x86_64 1:1.8.0.312.b07-1.amzn2.0.2 amzn2-core
java-1.8.0-openjdk-src-debug.x86_64 1:1.8.0.312.b07-1.amzn2.0.2 amzn2-core
ldapjdk.noarch 4.19-5.amzn2 amzn2-core
ldapjdk-javadoc.noarch 4.19-5.amzn2 amzn2-core
[ec2-user@ip-172-31-39-206 ~]$
```

## 4) 자바 설치 확인

```
Complete!  
[ec2-user@ip-172-31-39-206 ~]$ java -version  
openjdk version "1.8.0_312"  
OpenJDK Runtime Environment (build 1.8.0_312-b07)  
OpenJDK 64-Bit Server VM (build 25.312-b07, mixed mode)  
[ec2-user@ip-172-31-39-206 ~]$
```

## 5) 자바환경변수를 위한 자바 경로 확인

```
[ec2-user@ip-172-31-39-206 ~]$ which java  
/usr/bin/java  
[ec2-user@ip-172-31-39-206 ~]$ readlink -f /usr/bin/java  
-bash: readlink: command not found  
[ec2-user@ip-172-31-39-206 ~]$ readlink -f /usr/bin/java  
/usr/lib/jvm/java-1.8.0-openjdk-1.8.0.312.b07-1.amzn2.0.2.x86_64/jre/bin/java  
[ec2-user@ip-172-31-39-206 ~]$
```

## 6) 환경변수 설정

6-1) vi /etc/profile 로 들어가기

6-2) 마지막 줄에 export

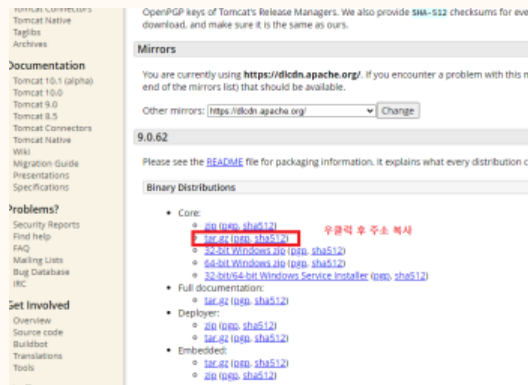
```
for i in /etc/profile.d/*.sh /etc/profile.d/sh.local ; do  
    if [ -r "$i" ]; then  
        if [ "${-#*i}" != "$-" ]; then  
            . "$i"  
        else  
            . "$i" >/dev/null  
        fi  
    fi  
done  
  
unset i  
unset -f pathmunge  
export JAVA_HOME=/usr/lib/jvm/java-1.8.0-openjdk  
export PATH=$PATH:$JAVA_HOME/bin  
export CLASSPATH=$JAVA_HOME/jre/lib:$JAVA_HOME/lib/tools.jar  
-- INSERT --
```

## 7) 환경변수파일 적용 및 경로확인

```
[ec2-user@ip-172-31-39-206 ~]$ source /etc/profile  
[ec2-user@ip-172-31-39-206 ~]$ echo $JAVA_HOME  
/usr/lib/jvm/java-1.8.0-openjdk
```

# [톰캣설치하기]

## 1) 톰캣 설치 링크 복사하기



## 2)톰캣 링크로 설치하기

```
libXrandr.x86_64 0:1.5.1-2.amzn2.0.3
libXtst.x86_64 0:1.2.3-1.amzn2.0.2
libfontenc.x86_64 0:1.1.3-3.amzn2.0.2
libglvnd-egl.x86_64 1:1.0.1-0.1.git5baae5.amzn2.0.1
libthai.x86_64 0:0.1.14-9.amzn2.0.2
libwayland-server.x86_64 0:1.17.0-1.amzn2
libxshmfence.x86_64 0:1.2-1.amzn2.0.2
lkscptools.x86_64 0:1.0.17-2.amzn2.0.2
mesa-libEGL.x86_64 0:18.3.4-5.amzn2.0.1
mesa-libgbm.x86_64 0:18.3.4-5.amzn2.0.1
pango.x86_64 0:1.42.4-4.amzn2
pixman.x86_64 0:0.34.0-1.amzn2.0.2
python-lxml.x86_64 0:3.2.1-4.amzn2.0.3
tzdata-java.noarch 0:2021e-1.amzn2
xorg-x11-fonts-Type1.noarch 0:7.5-9.amzn2

Complete!
[ec2-user@ip-172-31-39-206 ~]$ java -version
openjdk version "1.8.0_312"
OpenJDK Runtime Environment (build 1.8.0_312-b07)
OpenJDK 64-Bit Server VM (build 25.312-b07, mixed mode)
[ec2-user@ip-172-31-39-206 ~]$ ls wget & 주조 복사
[ec2-user@ip-172-31-39-206 ~]$ wget https://dclon.apache.org/tomcat/tomcat-9/v9.0.62/bin/apache-tomcat-9.0.62.tar.gz
[ec2-user@ip-172-31-39-206 ~]$ ls
2022-04-15 15:14:09- https://dclon.apache.org/tomcat/tomcat-9/v9.0.62/bin/apache-tomcat-9.0.62.tar.gz
Resolving dclon.apache.org (dclon.apache.org)... 151.101.2.132, 2a04:4e42::644
Connecting to dclon.apache.org (dclon.apache.org)[151.101.2.132]:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 11560971 (11M) [application/x-gzip]
Saving to: 'apache-tomcat-9.0.62.tar.gz'

100%[=====] 11,560,971 67.2MB/s in 0.2s

2022-04-15 15:14:09 (67.2 MB/s) - 'apache-tomcat-9.0.62.tar.gz' saved [11560971/11560971]

[ec2-user@ip-172-31-39-206 ~]$
```

## 3)톰캣설치 파일 압축 풀기

```
OpenJDK 64-Bit Server VM (build 25.312-b07, mixed mode)
[ec2-user@ip-172-31-39-206 ~]$ ls
[ec2-user@ip-172-31-39-206 ~]$ ls
[ec2-user@ip-172-31-39-206 ~]$ wget https://dclon.apache.org/tomcat/tomcat-9/v9.0.62/bin/apache-tomcat-9.0.62.tar.gz
--2022-04-15 15:14:09-- https://dclon.apache.org/tomcat/tomcat-9/v9.0.62/bin/apache-tomcat-9.0.62.tar.gz
Resolving dclon.apache.org (dclon.apache.org)... 151.101.2.132, 2a04:4e42::644
Connecting to dclon.apache.org (dclon.apache.org)[151.101.2.132]:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 11560971 (11M) [application/x-gzip]
Saving to: 'apache-tomcat-9.0.62.tar.gz'

100%[=====] 11,560,971 67.2MB/s in 0.2s

2022-04-15 15:14:09 (67.2 MB/s) - 'apache-tomcat-9.0.62.tar.gz' saved [11560971/11560971]

[ec2-user@ip-172-31-39-206 ~]$ tar xvfz apache-tomcat-9.0.62.tar.gz
apache-tomcat-9.0.62/conf/
apache-tomcat-9.0.62/conf/catalina.policy
apache-tomcat-9.0.62/conf/catalina.properties
apache-tomcat-9.0.62/conf/context.xml
apache-tomcat-9.0.62/conf/jaspic-providers.xml
apache-tomcat-9.0.62/conf/jaspic-providers.xsd
apache-tomcat-9.0.62/conf/logging.properties
apache-tomcat-9.0.62/conf/server.xml
apache-tomcat-9.0.62/conf/tomcat-users.xml
apache-tomcat-9.0.62/conf/tomcat-users.xsd
apache-tomcat-9.0.62/conf/web.xml
apache-tomcat-9.0.62/bin/
apache-tomcat-9.0.62/lib/
apache-tomcat-9.0.62/logs/
apache-tomcat-9.0.62/temp/
apache-tomcat-9.0.62/webapps/
apache-tomcat-9.0.62/webapps/ROOT/
apache-tomcat-9.0.62/webapps/ROOT/WEB-INF/
apache-tomcat-9.0.62/webapps/docs/
apache-tomcat-9.0.62/webapps/docs/WEB-INF/

i-0d7a27aaa715813e3 (Linux)
Public IPs: 3.34.99.119 Private IPs: 172.31.39.206
```

## 4) 톰캣설치확인

```
[ec2-user@ip-172-31-39-206 ~]$ ls -all
total 11304
drwx----- 4 ec2-user ec2-user 137 Apr 15 15:16 .
drwxr-xr-x 3 root root 22 Apr 15 14:52 ..
drwxrwxr-x 9 ec2-user ec2-user 220 Apr 15 15:16 apache-tomcat-9.0.62
-rw-rw-r-- 1 ec2-user ec2-user 11560971 Mar 31 14:40 apache-tomcat-9.0.62.tar.gz
-rw-r--r-- 1 ec2-user ec2-user 18 Jul 15 2020 .bash_logout
-rw-r--r-- 1 ec2-user ec2-user 193 Jul 15 2020 .bash_profile
-rw-r--r-- 1 ec2-user ec2-user 231 Jul 15 2020 .bashrc
drwx----- 2 ec2-user ec2-user 29 Apr 15 14:52 .ssh
[ec2-user@ip-172-31-39-206 ~]$
```

## 5) 톰캣 실행 및 서버확인

```
apache-tomcat-9.0.62 apache-tomcat-9.0.62.tar.gz localtime
[ec2-user@ip-172-31-39-206 ~]$ cd apache-tomcat-9.0.62/
[ec2-user@ip-172-31-39-206 apache-tomcat-9.0.62]$ cd bin
[ec2-user@ip-172-31-39-206 bin]$ ls
bootstrap.jar          configtest.sh         shutdown.sh
catalina.bat          daemon.sh             startup.bat
catalina.sh           digest.bat            startup.sh
catalina-tasks.xml    digest.sh             tomcat-juli.jar
ciphers.bat           makebase.bat          tomcat-native.tar.gz
ciphers.sh            makebase.sh           tool-wrapper.bat
commons-daemon.jar    setclasspath.bat      tool-wrapper.sh
commons-daemon-native.tar.gz setclasspath.sh       version.bat
configtest.bat        shutdown.bat          version.sh
[ec2-user@ip-172-31-39-206 bin]$ ./startup.sh
Using CATALINA_BASE:   /home/ec2-user/apache-tomcat-9.0.62
Using CATALINA_HOME:   /home/ec2-user/apache-tomcat-9.0.62
Using CATALINA_TMPDIR: /home/ec2-user/apache-tomcat-9.0.62/temp
Using JRE_HOME:        /
Using CLASSPATH:       /home/ec2-user/apache-tomcat-9.0.62/bin/bootstrap.jar:/home/ec2-user/apache-tomcat-9.0.62/bin/tomcat-juli.jar
Using CATALINA_OPTS:
Tomcat started.
[ec2-user@ip-172-31-39-206 bin]$ ps -ef | grep tomcat
ec2-user 16406 1 8 01:56 pts/1 00:00:03 //bin/java -Djava.util.logging.config.file=/home/ec2-user/apache-tomcat-9.0.62/conf/logging.properties -Djava.util.logging.manager=org.apache.juli.ClassLoaderLogManager -Djdk.tls.ephemeralDHKeySize=2048 -Djava.protocol.handler.pkgs=org.apache.catalina.webresources -Dorg.apache.catalina.security.SecurityListener.UMASK=0027 -Dignore.endorsed.dirs=-classpath /home/ec2-user/apache-tomcat-9.0.62/bin/bootstrap.jar:/home/ec2-user/apache-tomcat-9.0.62/bin/tomcat-juli.jar -Dcatalina.base=/home/ec2-user/apache-tomcat-9.0.62 -Dcatalina.home=/home/ec2-user/apache-tomcat-9.0.62 -Djava.io.tmpdir=/home/ec2-user/apache-tomcat-9.0.62/temp org.apache.catalina.startup.Bootstrap start
ec2-user 16766 15226 0 01:56 pts/1 00:00:00 grep --color=auto tomcat
[ec2-user@ip-172-31-39-206 bin]$
```

## 6) 8080 포트 연결

```
[ec2-user@ip-172-31-39-206 bin]$ sudo su
[root@ip-172-31-39-206 bin]# wget http://localhost:8080
bash: wget: command not found
[root@ip-172-31-39-206 bin]# yum install wget
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
amzn2-core | 3.7 kB 00:00:00
1 packages excluded due to repository priority protections
Package wget-1.14-18.amzn2.1.x86_64 already installed and latest version
Nothing to do
[root@ip-172-31-39-206 bin]# wget http://localhost:8080
bash: wget: command not found
[root@ip-172-31-39-206 bin]# wget http://localhost:8080
--2022-04-17 02:00:55-- ftp://http://localhost:8080
=> 'localhost:8080'
Resolving http (http)... failed: Name or service not known.
wget: unable to resolve host address 'http'
[root@ip-172-31-39-206 bin]# wget http://localhost:8080
--2022-04-17 02:01:48-- http://localhost:8080/
Resolving localhost (localhost)... 127.0.0.1
Connecting to localhost (localhost)[127.0.0.1]:8080... connected.
HTTP request sent, awaiting response... 200
Length: unspecified [text/html]
Saving to: 'index.html'
```

## 7)환경변수설정 및 확인

7-1) mv 톰캣명 /usr/local/tomcat9.0로  
디렉토리 만들어서 이동

7-2) vi /etc/profile 로 들어가기

7-3) 자바환경변수에 톰캣 export추가

7-4) 환경변수 적용 / 확인

```
export JAVA_HOME=/usr/lib/jvm/java-1.8.0-openjdk-1.8.0.312.b07-1.amzn2.0.2.x86_64
export CATALINA_HOME=/usr/local/tomcat9.0
export PATH=$PATH:$JAVA_HOME/bin
export CLASSPATH=$JAVA_HOME/jre/lib:$JAVA_HOME/lib/tools.jar

"/etc/profile" 83L, 2133B written
[ec2-user@ip-172-31-39-206 ~]$ source /etc/profile
[ec2-user@ip-172-31-39-206 ~]$ echo $CATALINA_HOME
/usr/local/apache-tomcat-9.0
[ec2-user@ip-172-31-39-206 ~]$
```

7-5) context.xml파일 들어가기

7-6) Value태그 주석처리

```
[ec2-user@ip-172-31-39-206 ~]$ ls /usr/local/tomcat9.0
bin          conf          lib          logs          README.md    RUNNING.txt  webapps
BUILDING.txt CONTRIBUTING.md LICENSE NOTICE RELEASE-NOTES temp          work
[ec2-user@ip-172-31-39-206 ~]$ ls /usr/local/tomcat9.0/webapps
docs examples host-manager manager ROOT
[ec2-user@ip-172-31-39-206 ~]$ ls /usr/local/tomcat9.0/webapps/manager
css images index.jsp META-INF status.xsd WEB-INF xform.xml
[ec2-user@ip-172-31-39-206 ~]$ ls /usr/local/tomcat9.0/webapps/manager/META-INF
context.xml
[ec2-user@ip-172-31-39-206 ~]$ sudo vi /usr/local/tomcat9.0/webapps/manager/META-INF/context.xml
```

```
<?xml version="1.0" encoding="UTF-8"?>
<!--
Licensed to the Apache Software Foundation (ASF) under one or more
contributor license agreements. See the NOTICE file distributed with
this work for additional information regarding copyright ownership.
The ASF licenses this file to You under the Apache License, Version 2.0
(the "License"); you may not use this file except in compliance with
the License. You may obtain a copy of the License at

    http://www.apache.org/licenses/LICENSE-2.0

Unless required by applicable law or agreed to in writing, software
distributed under the License is distributed on an "AS IS" BASIS,
WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
See the License for the specific language governing permissions and
limitations under the License.
-->
<Context antiResourceLocking="false" privileged="true" >
  <CookieProcessor className="org.apache.tomcat.util.http.Rfc6265CookieProcessor"
    sameSiteCookies="strict" />
  <!-- <Valve className="org.apache.catalina.valves.RemoteAddrValve"
    allow="127\.\d+\.\d+\.\d+::1|0:0:0:0:0:0:0:1" />-->
  <Manager sessionAttributeValueClassNameFilter="java\.lang\.(?:Boolean|Integer|Long|Number|Stri
ng)|org\.apache\.catalina\.filters\.CsrfPreventionFilter|LruCache(?:\d*)?java\.util\.(?:Linked
)?HashMap"/>
</Context>
```

## 8) 톰캣 실행

```
<tomcat9.0/webapps/manager/META-INF/context.xml" 24L, 1354B written
[ec2-user@ip-172-31-39-206 ~]$ cd /usr/local/tomcat9.0
[ec2-user@ip-172-31-39-206 tomcat9.0]$ ls
bin          conf          lib          logs         README.md    RUNNING.txt  webapps
BUILDING.txt CONTRIBUTING.md LICENSE NOTICE  RELEASE-NOTES temp         work
[ec2-user@ip-172-31-39-206 tomcat9.0]$ bin
bash: bin: command not found
[ec2-user@ip-172-31-39-206 tomcat9.0]$ cd bin
[ec2-user@ip-172-31-39-206 bin]$ ls
bootstrap.jar      commons-daemon-native.tar.gz  makebase.bat      startup.sh
catalina.bat      configtest.bat               makebase.sh        tomcat-juli.jar
catalina.sh        configtest.sh                setclasspath.bat   tomcat-native.tar.gz
catalina-tasks.xml daemon.sh                     setclasspath.sh    tool-wrapper.bat
ciphers.bat        digest.bat                   shutdown.bat        tool-wrapper.sh
ciphers.sh         digest.sh                     shutdown.sh         version.bat
commons-daemon.jar index.html                   startup.bat         version.sh
[ec2-user@ip-172-31-39-206 bin]$ ./startup.sh
Using CATALINA_BASE:   /usr/local/tomcat9.0
Using CATALINA_HOME:   /usr/local/tomcat9.0
Using CATALINA_TMPDIR: /usr/local/tomcat9.0/temp
Using JRE_HOME:        /usr/lib/jvm/java-1.8.0-openjdk-1.8.0.312.b07-1.amzn2.0.2.x86_64
Using CLASSPATH:       /usr/local/tomcat9.0/bin/bootstrap.jar:/usr/local/tomcat9.0/bin/tomcat-juli.jar
Using CATALINA_OPTS:
Tomcat started.
[ec2-user@ip-172-31-39-206 bin]$
```

## 9) 인스턴스 보안그룹 포트 허용

인바운드 규칙 2

삭제

보안 그룹 규칙 ID

-

유형 정보

사용자 지정 TCP

프로토콜 정보

TCP

포트 범위 정보

8080

소스 유형 정보

Anywhere-IPv4

소스 정보

0.0.0.0/0 X

설명 - 선택 사항 정보

인바운드 규칙 3

삭제

보안 그룹 규칙 ID

-

유형 정보

사용자 지정 TCP

프로토콜 정보

TCP

포트 범위 정보

8080

소스 유형 정보

Anywhere-IPv6

소스 정보

:::0 X

설명 - 선택 사항 정보

규칙 추가



# [MariaDB설치하기]

## 1)mariadb설치

```
[ec2-user@ip-172-31-39-206 home]$ sudo yum install mariadb-server
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
amzn2-core                                | 3.7 kB  00:00:00
mariadb                                    | 3.4 kB  00:00:00
1 packages excluded due to repository priority protections
Package 1:mariadb-server-5.5.68-1.amzn2.x86_64 is obsoleted by MariaDB-server-10.3.34-1.el7.centos.x86_64 which is already installed
Nothing to do
```

## 2)mariadb비밀번호 설정 및 실행

```
[ec2-user@ip-172-31-39-206 home]$ sudo systemctl start mariadb
[ec2-user@ip-172-31-39-206 home]$ mysqladmin -u root -p password 'admin1234';
Enter password:
[ec2-user@ip-172-31-39-206 home]$ mysql -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 9
Server version: 10.3.34-MariaDB MariaDB Server

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]>
```

## 3)데이터베이스 생성

```
MariaDB [(none)]> create database dbtest;
Query OK, 1 row affected (0.000 sec)

MariaDB [(none)]>
```

데이터베이스 생성하기 : create databse 데이터베이스이름;

## 4)mariadb 정상 가동 확인

```
[ec2-user@ip-172-31-39-206 ~]$ rpm -qa | grep -i mariadb
MariaDB-compat-10.3.34-1.el7.centos.x86_64
MariaDB-server-10.3.34-1.el7.centos.x86_64
MariaDB-common-10.3.34-1.el7.centos.x86_64
MariaDB-client-10.3.34-1.el7.centos.x86_64
[ec2-user@ip-172-31-39-206 ~]$
```



## [프로젝트 서버에 올리기]

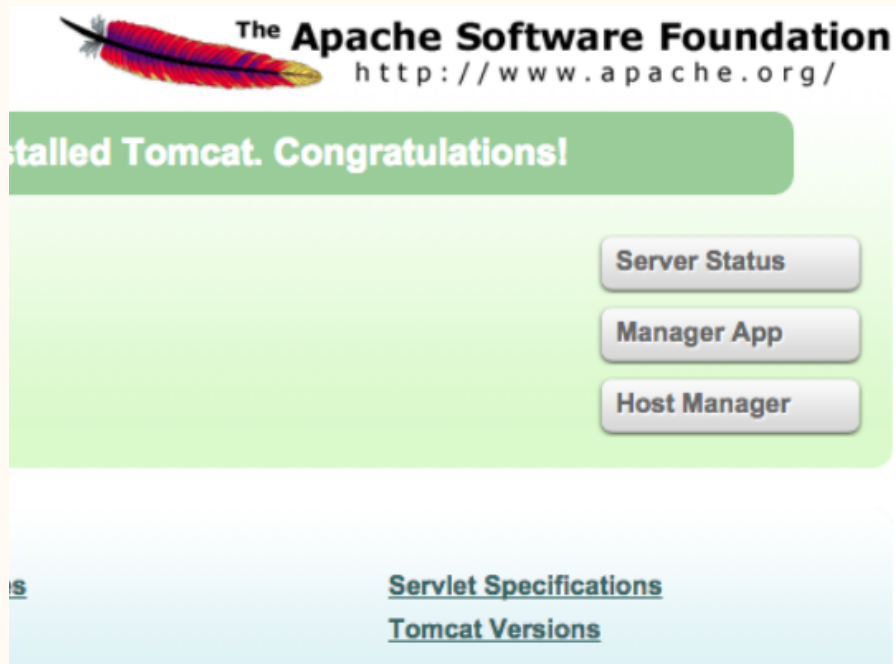
### 1) 톰캣 manager app이용

#### 1-1) manager app 들어가기 위해 id와 비밀번호 설정

```
[root@ip-172-31-46-80 ec2-user]# ls
apache-tomcat-9.0.62.tar.gz  index.html
[root@ip-172-31-46-80 ec2-user]# ls /usr
bin  etc  games  include  lib  lib64  libexec  local  sbin  share  src  tmp
[root@ip-172-31-46-80 ec2-user]# ls /usr/local
bin  etc  games  include  lib  lib64  libexec  sbin  share  src  tomcat9.0
[root@ip-172-31-46-80 ec2-user]# cd /usr/local/tomcat9.0
[root@ip-172-31-46-80 tomcat9.0]# ls
bin      conf      lib      logs      README.md  RUNNING.txt  webapps
BUILDING.txt  CONTRIBUTING.md  LICENSE  NOTICE  RELEASE-NOTES  temp      work
[root@ip-172-31-46-80 tomcat9.0]# ls conf
Catalina      context.xml      logging.properties  tomcat-users.xsd
catalina.policy  jaspic-providers.xml  server.xml          web.xml
catalina.properties  jaspic-providers.xsd  tomcat-users.xml
[root@ip-172-31-46-80 tomcat9.0]# vi conf/tomcat-users.xml
```

```
<user username="admin" password="<must-be-changed>" roles="manager-gui"/>
<user username="robot" password="<must-be-changed>" roles="manager-script"/>
-->
<!--
The sample user and role entries below are intended for use with the
examples web application. They are wrapped in a comment and thus are ignored
when reading this file. If you wish to configure these users for use with the
examples web application, do not forget to remove the <!-- ... --> that surrounds
them. You will also need to set the passwords to something appropriate.
-->
<!--
<role rolename="tomcat"/>
<role rolename="role1"/>
<user username="tomcat" password="<must-be-changed>" roles="tomcat"/>
<user username="both" password="<must-be-changed>" roles="tomcat,role1"/>
<user username="role1" password="<must-be-changed>" roles="role1"/>
-->
<role rolename="manager-gui"/>
  <user username="admin" password="admin" roles="manager-gui"/>
--
--
-->
</tomcat-users>
```

1-2)인스턴스의 ip:8080주소입력해서 들어간 후  
ManagerApp 선택 하고 위에서 지정한  
id와 비밀번호 입력해서 들어가기



1-3)STS에서 war file로 export한  
프로젝트 war파일 Deploy

Applications					
Path	Version	Display Name	Running	Sessions	Commands
/	None specified	Welcome to Tomcat	true	0	<a href="#">Start</a> <a href="#">Stop</a> <a href="#">Reload</a> <a href="#">Undeploy</a> <a href="#">Expire sessions</a> with idle a: 30 minutes
/docs	None specified	Tomcat Documentation	true	0	<a href="#">Start</a> <a href="#">Stop</a> <a href="#">Reload</a> <a href="#">Undeploy</a> <a href="#">Expire sessions</a> with idle a: 30 minutes
/examples	None specified	Servlet and JSP Examples	true	0	<a href="#">Start</a> <a href="#">Stop</a> <a href="#">Reload</a> <a href="#">Undeploy</a> <a href="#">Expire sessions</a> with idle a: 30 minutes
/host-manager	None specified	Tomcat Host Manager Application	true	0	<a href="#">Start</a> <a href="#">Stop</a> <a href="#">Reload</a> <a href="#">Undeploy</a> <a href="#">Expire sessions</a> with idle a: 30 minutes
/manager	None specified	Tomcat Manager Application	true	1	<a href="#">Start</a> <a href="#">Stop</a> <a href="#">Reload</a> <a href="#">Undeploy</a> <a href="#">Expire sessions</a> with idle a: 30 minutes

Deploy	
Deploy directory or WAR file located on server	
Context Path (required): <input type="text"/> XML Configuration file URL: <input type="text"/> WAR or Directory URL: <input type="text"/> <a href="#">Deploy</a>	
WAR file to deploy	
Select WAR file to upload: <a href="#">Choose File</a> No file chosen <a href="#">Deploy</a>	

## [프로젝트 서비스 동작 확인]

