SonarQube Linux 설치

이 문서는 Sonarqube 설치에 대한 가이드를 제공한다.

- 사전 준비
- SonarQube Download
- Database 생성 및 DBuser 생성
- SonarQube 설정
  - sonar.properties 수정
  - wrapper.conf 수정
- 서비스 등록
  - CentOS 6
  - CentOS 7
- Resources

OS	CentOS 7
SonarQube	version 7.2.x 이상

사전 준비

참고

- root 권한으로 SonarQube 실행이 불가하므로 사용자 추가 필요

```
$ adduser --system --no-create-home sonarqube sonarqube
```

- root 권한으로 수행
  - `vm.max_map_count` is greater or equals to 262144
  - `fs.file-max` is greater or equals to 65536
  - the user running SonarQube can open at least 65536 file descriptors
  - the user running SonarQube can open at least 4096 threads

```
$ sysctl -w vm.max_map_count=262144
$ sysctl -w fs.file-max=65536
$ ulimit -n 65536
// open files
$ ulimit -u 4096
// max user processes
```

부팅 후에도 유지하려면, */etc/sysctl.d/99-sonarqube.conf 에 위의 옵션 추가*

/etc/sysctl.d/99-sonarqube.conf (or /etc/sysctl.conf)

```
vm.max_map_count=262144 or 524288
fs.file-max=65536 or 131072
```

/etc/security/limits.d/99-sonarqube.conf (or /etc/security/limits.conf)

```
sonarqube   -   nofile   65536 or 131072
sonarqube   -   nproc    4096 or 8192
```

Ubuntu의 경우 /etc/security/limits.conf 수정

systemd 를 사용하여 기동한다면, 시작 스크립트에 아래 내용 추가

2014 - 2023 CURVC Corp. All rights reserved

```
LimitNOFILE=65536 or 131072
LimitNPROC=4096 or 8192
```

SonarQube Download

https://www.sonarqube.org/downloads/ 접속 하여 SonarQube 5.6.5(LTS)를 다운 받고 압축을 해제 한다.

압축 해제한 파일을 관리가 용이 하도록 원하는 디렉토리로 이동을 한다.

```
$ wget https://binaries.sonarsource.com/CommercialDistribution/sonarqube-developer/sonarqube-developer-
8.3.0.34182.zip
$ unzip sonarqube-developer-8.3.0.34182.zip
$ mv sonarqube-developer-8.3.0.34182.zip /opt/sonarqube/
$ chown -R sonarqube.sonarqube /opt/sonarqube
```

Database 생성 및 DBuser 생성

SonarQube의 데이터베이스와 사용자를 생성하기 위해 Postgresql로 접속 합니다.

```
$ su - postgres
$ psql
CREATE USER sonar WITH ENCRYPTED password 'sonar';
CREATE DATABASE sonar WITH ENCODING 'UTF8' OWNER sonar TEMPLATE=template0;
\q
```

/var/lib/pgsql/10/data/pg_hba.conf 파일에서 인증 방식 수정

/var/lib/pgsql/10/data/pg_hba.conf

```
.
#host    all             all             127.0.0.1/32            ident
host    all             all             127.0.0.1/32
md5                                                                     // md5
.
```

디비 재기동

systemctl restart postgresql-10

SonarQube 설정

sonar.properties 수정

$SONARQUBE_HOME/conf/sonar.properties 편집하기 위해 다음 명령을 수행합니다.

```
$ vi /opt/sonarqube/conf/sonar.properties
```

다음 항목들을 수정(같은 서버에 설치할 경우 locahost가 아닌 위 pg_hba.conf 파일에 설정된 127.0.0.1 입력

- sonar.jdbc.username=sonar
- sonar.jdbc.password=sonar
- sonar.jdbc.url=jdbc:postgresql://127.0.0.1/sonar

2014 - 2023 CURVC Corp. All rights reserved

```
# DATABASE
sonar.jdbc.username=sonaruser
sonar.jdbc.password=sonarpass

#----- MySQL 5.6 or greater
sonar.jdbc.url=jdbc:mysql://10.20.250.93:3306/sonardb?
useUnicode=true&characterEncoding=utf8&rewriteBatchedStatements=true&useConfigs=maxPerformance&useSSL=false

# WEB SERVER
sonar.web.javaOpts=-Xmx2048m -Xms1024m -XX:+HeapDumpOnOutOfMemoryError

sonar.web.host=0.0.0.0

sonar.web.port=9000

# COMPUTE ENGINE
sonar.ce.javaOpts=-Xmx2048m -Xms1024m -XX:+HeapDumpOnOutOfMemoryError

# OTHERS
sonar.path.data=/data/atlassian/application-data/sonarqube
```

```
# Property values can:
# - reference an environment variable, for example sonar.jdbc.url= ${env:SONAR_JDBC_URL}
# - be encrypted. See http://redirect.sonarsource.com/doc/settings-encryption.html

#--------------------------------------------------------------------------------------------------
# DATABASE
#
# IMPORTANT: the embedded H2 database is used by default. It is recommended for tests but not for
# production use. Supported databases are MySQL, Oracle, PostgreSQL and Microsoft SQLServer.

# User credentials.
# Permissions to create tables, indices and triggers must be granted to JDBC user.
# The schema must be created first.
sonar.jdbc.username=sonar
sonar.jdbc.password=sonar

#----- Embedded Database (default)
# H2 embedded database server listening port, defaults to 9092
#sonar.embeddedDatabase.port=9092
#----- MySQL 5.6 or greater
# Only InnoDB storage engine is supported (not myISAM).
# Only the bundled driver is supported. It can not be changed.
#sonar.jdbc.url=jdbc:mysql://localhost:3306/sonar?useUnicode=true&characterEncoding=utf8&rewriteBatchedStatements=true&useC
onfigs=maxPerformance


#----- Oracle 11g/12c
# - Only thin client is supported
# - Only versions 11.2.x and 12.x of Oracle JDBC driver are supported
# - The JDBC driver must be copied into the directory extensions/jdbc-driver/oracle/
# - If you need to set the schema, please refer to http://jira.sonarsource.com/browse/SONAR-5000
#sonar.jdbc.url=jdbc:oracle:thin:@localhost:1521/XE


#----- PostgreSQL 8.x/9.x
# If you don't use the schema named "public", please refer to http://jira.sonarsource.com/browse/SONAR-5000
sonar.jdbc.url=jdbc:postgresql://localhost/sonar


#----- Microsoft SQLServer 2008/2012/2014 and SQL Azure
# A database named sonar must exist and its collation must be case-sensitive (CS) and accent-sensitive (AS)
# Use the following connection string if you want to use integrated security with Microsoft Sql Server
# Do not set sonar.jdbc.username or sonar.jdbc.password property if you are using Integrated Security
# For Integrated Security to work, you have to download the Microsoft SQL JDBC driver package from
# http://www.microsoft.com/en-us/download/details.aspx?displaylang=en&id=11774
# and copy sqljdbc_auth.dll to your path. You have to copy the 32 bit or 64 bit version of the dll
# depending upon the architecture of your server machine.
# This version of SonarQube has been tested with Microsoft SQL JDBC version 4.1
#sonar.jdbc.url=jdbc:sqlserver://localhost;databaseName=sonar;integratedSecurity=true
```

wrapper.conf 수정

$SONARQUBE_HOME/conf/wrapper.conf

Java command 실행 파일 경로 지정

2014 - 2023 CURVC Corp. All rights reserved

```
wrapper.java.command=/opt/jdk-11.0.5/bin/java
```

SonarQube 실행

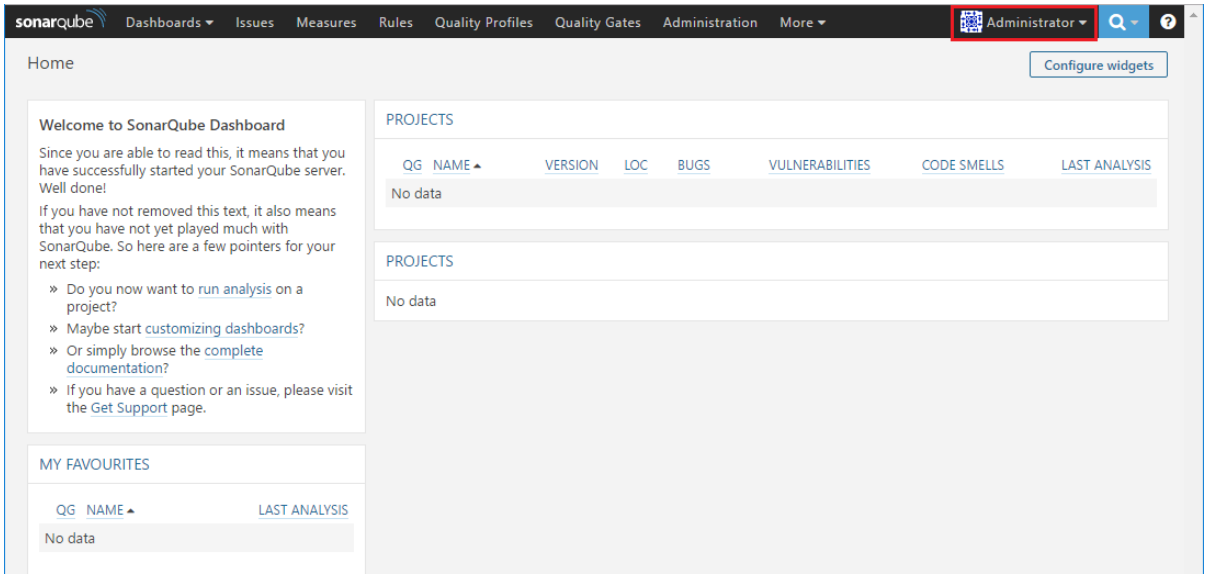
다음 명령을 통해 SonarQube를 실행합니다.

```
$ /opt/sonarqube/bin/linux-x86-64/sonar.sh start
```

SonarQube에 접속하기 위해 다음 주소를 입력합니다.

- http://localhost:9000
- http://ipaddress:9000

아이디와 패스워드를 입력합니다. ID : admin / PW : admin



서비스 등록

CentOS 6

/etc/init.d/sonar 파앨 생성

2014 - 2023 CURVC Corp. All rights reserved

```
#!/bin/bash
# SonarQube
#chkconfig: 2345 80 05
#description: SonarQube

RUN_AS_USER=sonar
APPLICATION_HOME=/opt/sonarqube

start() {
        echo "Starting SonarQube: "
        if [ "x$USER" != "x$RUN_AS_USER" ]; then
          su - $RUN_AS_USER -c "$APPLICATION_HOME/bin/linux-x86-64/sonar.sh start"
        else
          $APPLICATION_HOME/bin/linux-x86-64/sonar.sh start
        fi
        echo "done."
}
stop() {
        echo "Shutting down SonarQube: "
        if [ "x$USER" != "x$RUN_AS_USER" ]; then
          su - $RUN_AS_USER -c "$APPLICATION_HOME/bin/linux-x86-64/sonar.sh stop"
        else
          $APPLICATION_HOME/bin/linux-x86-64/sonar.sh stop
        fi
        echo "done."
}

case "$1" in
  start)
        start
        ;;
  stop)
        stop
        ;;
  *)
        echo "Usage: $0 {start|stop}"
esac

exit 0
```

Service 등록

```
$ chkconfig --add sonar
```

CentOS 7

/etc/systemd/system/sonar.service 파일 생성

```
[Unit]
Description=Atlassian SonarQube Server Service
After=syslog.target network.target crowd.service

[Service]
Type=forking
User=sonar
Environment=JAVA_HOME=/data/java/jdk
ExecStart=/data/sonarqube/bin/linux-x86-64/sonar.sh start
ExecStop=/data/sonarqube/bin/linux-x86-64/sonar.sh stop
LimitNOFILE=131072
LimitNPROC=8192

[Install]
WantedBy=multi-user.target
```

서비스 등록

2014 - 2023 CURVC Corp. All rights reserved

```
$ systemctl enable sonar.service
```

Resources

sonarqube-5.6.6.zip

WinSCP-5.9.3-Setup.exe

2014 - 2023 CURVC Corp. All rights reserved