**SonarQube Installation**

SonarQube provides the capability to not only show health of an application but also to highlight issues newly introduced. With a Quality Gate in place, you can fix the leak and therefore improve code quality systematically.

**Prerequisites**

1. EC2 instance with Java installed
2. MySQL Database Server or MyQL RDS instance.

**Installation**

Install MySQL client version

# yum install mysql

Download stable SonarQube version from below website.

* Website: <https://www.sonarqube.org/downloads/>
* Note: This Article written for SonarQube version 6.7.6

Download & unzip SonarQube 6.7.6

# cd /opt

# wget https://sonarsource.bintray.com/Distribution/sonarqube/sonarqube-6.7.6.zip

# unzip sonarqube-6.7.6.zip

# mv /opt/sonarqube-6.7.6 /opt/sonar

Create new user give ownership to /opt/sonar directory

# useradd sonar

# password sonar

# chown -R sonar:sonar /opt/sonar

Allow RDS instance security group to access SonarQube server

Connect to RDS instance with database credentials

mysql -h <RDS\_Instance\_endpoint>:3306 -u <DB\_USER\_NAME> -p <DB\_PASSWORD>

Create a new sonar database

CREATE DATABASE sonar CHARACTER SET utf8 COLLATE utf8\_general\_ci;

Create a local and a remote user

CREATE USER sonar@localhost IDENTIFIED BY 'sonar';

CREATE USER sonar@'%' IDENTIFIED BY 'sonar';

Grant database access permissions to users

GRANT ALL ON sonar.\* TO sonar@localhost;

GRANT ALL ON sonar.\* TO sonar@'%';

check users and databases

use mysql

show databases;

SELECT User FROM mysql.user;

FLUSH PRIVILEGES;

QUIT

So for you have configured required database information on RDS. Let’s Jump back to your EC2 instance and enable SonarQube properties file to connect his Database.

**ON EC2 Instance**

Edit sonar properties file to uncomment and provide required information for below properties.

* File Name: /opt/sonar/conf/sonar.properties
  + sonar.jdbc.username=sonar
  + sonar.jdbc.password=sonar
  + sonar.jdbc.url=jdbc:mysql://<RDS\_DATABAE\_ENDPOINT>:3306/sonar?useUnicode=true&characterEncoding=utf8&rewriteBatchedStatements=true&useConfigs=maxPerformance&useSSL=false
  + sonar.web.host=0.0.0.0
  + sonar.web.context=/sonar

Switch to sonar user and start SonarQube service

# su - sonar

# cd /opt/sonar/bin/linux-x86-64/

# ./sonar.sh start

**Run SonarQube as a default service**

Implement SonarQube server as a service

Copy sonar.sh to etc/init.d/sonar and modify it according to your platform.

# sudo cp /opt/sonar/bin/linux-x86-64/sonar.sh /etc/init.d/sonar

# sudo vi /etc/init.d/sonar

Add below values to your /etc/init.d/sonar file

Insert/modify below values

SONAR\_HOME=/opt/sonar

PLATFORM=linux-x86-64

WRAPPER\_CMD="${SONAR\_HOME}/bin/${PLATFORM}/wrapper"

WRAPPER\_CONF="${SONAR\_HOME}/conf/wrapper.conf"

PIDDIR="/var/run"

Start SonarQube server

# service sonar start

SonarQube application uses port 9000. access SonarQube from browser

http://<EC2\_PUBLIC\_IP>:9000/sonar

**Troubleshooting**

1. Check whether you enabled port 9000 in EC2 instance security group
2. Check whether you enabled EC2 instance IP range in RDS security group

**Next Step**

*  [Integrate SonarQube with Jenkins](https://www.youtube.com/watch?v=k-3krTRuAFA)