

# 前言

SonarQube 是一款用于代码质量管理的开源工具，它主要用于管理源代码的质量。通过插件形式，可以支持众多计算机语言，比如 java, C#, go, C/C++, PL/SQL, Cobol, JavaScrip, Groovy 等。sonar可以通过PMD,CheckStyle,Findbugs等等代码规则检测工具来检测你的代码，帮助你发现代码的漏洞，Bug，异味等信息。Sonar 不仅提供了对 IDE 的支持，可以在 Eclipse和 IntelliJ IDEA 这些工具里联机查看结果；同时 Sonar 还对大量的持续集成工具提供了接口支持，可以很方便地在持续集成中使用 Sonar。

sonarqube7.9的前提条件是jdk11、postgresql

链接：[https://pan.baidu.com/s/1BcrQhzv3piH7CBRPfB\\_RTg](https://pan.baidu.com/s/1BcrQhzv3piH7CBRPfB_RTg) 提取码：6d1q

# 安装

## jdk11安装

参考：<https://www.cnblogs.com/jxd283465/p/11541506.html>

```
1 [root@localhost home]# java -version
2 java version "11.0.4" 2019-07-16 LTS
3 Java(TM) SE Runtime Environment 18.9 (build 11.0.4+10-LTS)
4 Java HotSpot(TM) 64-Bit Server VM 18.9 (build 11.0.4+10-LTS, mixed mode)
```

## postgresql10.1安装

参考：<https://www.cnblogs.com/jxd283465/p/11550745.html>

```
1 [root@localhost bin]# ./psql -V
2 psql (PostgreSQL) 10.10
```

## sonarqube7.9安装

### 1.解压，重命名

```
# 解压
unzip sonarqube-7.9.1.zip

# 重命名
mv sonarqube-7.9.1 sonarqube
```

如果报错unzip not command：yum -y install unzip

### 2.创建sonarqube用户组和用户、赋权

```
1 # 创建sonarqube用户组
2 [root@localhost home]# groupadd sonarqube
3
4 # 创建sonarqube用户 -g指定用户组 -p指定密码 -M不创建home目录
5 [root@localhost home]# useradd sonarqube -g sonarqube -p sonarqube -M
6
7 # 赋予/home/sonarqube文件夹sonarqube用户权限 -R表示递归
8 [root@localhost home]# chown -R sonarqube:sonarqube /home/sonarqube
```

### 3.修改配置文件

```
# 修改sonarqube配置文件，增加postgres数据库配置
vi /home/sonarqube/conf/sonar.properties

# postgres数据库用户名
sonar.jdbc.username=postgres
# postgres数据库用户名密码
sonar.jdbc.password=postgres
# postgres数据库地址
sonar.jdbc.url=jdbc:postgresql://127.0.0.1:5432/sonar?currentSchema=public
# sonar的web访问端口
sonar.web.port=9002
```

### 4.配置启动参数

```
# 修改sonar的启动文件
vi /home/sonarqube/bin/linux-x86-64/sonar.sh

# 将runuser设置为sonarqube
RUN_AS_USER=sonarqube
```

### 5.启动sonarqube

```
1 # 切换sonarqube用户
2 [root@localhost home]# su sonarqube
3
4 # 启动sonar
5 bash-4.2$ /home/sonarqube/bin/linux-x86-64/sonar.sh start
6 Starting SonarQube...
7 Started SonarQube.
```

浏览器访问<http://192.168.8.20:9002> 访问失败

查看日志查找原因，日志在 /home/sonarqube/logs 下，分别查看es和sonar的启动日志

```
1 bash-4.2$ pwd
2 /home/sonarqube/logs
3 bash-4.2$ ls -l
4 总用量 12
5 -rw-r--r--. 1 sonarqube sonarqube 3402 9月 19 16:52 es.log
6 -rw-r--r--. 1 sonarqube sonarqube 88 7月 10 12:21 README.txt
7 -rw-r--r--. 1 sonarqube sonarqube 1522 9月 19 16:52 sonar.log
```

查看es.log ( elasticsearch )

```
1 bash-4.2$ cat es.log
2 2019.09.19 16:52:17 INFO es[] [o.e.e.NodeEnvironment] using [1] data paths, mounts [[/home (/dev/mapper/centos-home)], net usable_space [961.2gb], net total_spa
3 2019.09.19 16:52:17 INFO es[] [o.e.e.NodeEnvironment] heap size [494.9mb], compressed ordinary object pointers [true]
4 2019.09.19 16:52:17 INFO es[] [o.e.n.Node] node name [sonarqube], node ID [k784DcanQ1e4py5e75WQYQ]
5 2019.09.19 16:52:17 INFO es[] [o.e.n.Node] version[6.8.0], pid[20791], build[default/tar/65b6179/2019-05-15T20:06:13.172855Z], OS[Linux/3.10.0-957.27.2.el7.x86_6
6 2019.09.19 16:52:17 INFO es[] [o.e.n.Node] JVM arguments [-XX:+UseConcMarkSweepGC, -XX:CMSInitiatingOccupancyFraction=75, -XX:+UseCMSInitiatingOccupancyOnly, -De
7 2019.09.19 16:52:18 INFO es[] [o.e.p.PluginsService] loaded module [analysis-common]
8 2019.09.19 16:52:18 INFO es[] [o.e.p.PluginsService] loaded module [lang-painless]
9 2019.09.19 16:52:18 INFO es[] [o.e.p.PluginsService] loaded module [mapper-extras]
10 2019.09.19 16:52:18 INFO es[] [o.e.p.PluginsService] loaded module [parent-join]
11 2019.09.19 16:52:18 INFO es[] [o.e.p.PluginsService] loaded module [percolator]
12 2019.09.19 16:52:18 INFO es[] [o.e.p.PluginsService] loaded module [reindex]
13 2019.09.19 16:52:18 INFO es[] [o.e.p.PluginsService] loaded module [repository-url]
14 2019.09.19 16:52:18 INFO es[] [o.e.p.PluginsService] loaded module [transport-netty4]
15 2019.09.19 16:52:18 INFO es[] [o.e.p.PluginsService] no plugins loaded
16 2019.09.19 16:52:19 WARN es[] [o.e.d.c.s.Settings] [http.enabled] setting was deprecated in Elasticsearch and will be removed in a future release! See the breaki
17 2019.09.19 16:52:20 INFO es[] [o.e.d.DiscoveryModule] using discovery type [zen] and host providers [settings]
18 2019.09.19 16:52:21 INFO es[] [o.e.n.Node] initialized
19 2019.09.19 16:52:21 INFO es[] [o.e.n.Node] starting ...
20 2019.09.19 16:52:21 INFO es[] [o.e.t.TransportService] publish_address {127.0.0.1:9001}, bound_addresses {127.0.0.1:9001}
21 2019.09.19 16:52:21 INFO es[] [o.e.b.BootstrapChecks] explicitly enforcing bootstrap checks
22 2019.09.19 16:52:21 ERROR es[] [o.e.b.Bootstrap] node validation exception
23 [2] bootstrap checks failed
24 [1]: max file descriptors [4096] for elasticsearch process is too low, increase to at least [65535]
25 [2]: max virtual memory areas vm.max_map_count [65530] is too low, increase to at least [262144]
26 2019.09.19 16:52:21 INFO es[] [o.e.n.Node] stopping ...
27 2019.09.19 16:52:21 INFO es[] [o.e.n.Node] stopped
28 2019.09.19 16:52:21 INFO es[] [o.e.n.Node] closing ...
29 2019.09.19 16:52:21 INFO es[] [o.e.n.Node] closed
```

发现有两个错误：

```
24 [1]: max file descriptors [4096] for elasticsearch process is too low, increase to at least [65535]
25 [2]: max virtual memory areas vm.max_map_count [65530] is too low, increase to at least [262144]
```

解决第一个：

```
vi /etc/security/limits.conf
修改配置文件，在文件最后加入下面两个行。用户退出重新登录生效。
* soft nofile 65536
* hard nofile 65536
```

解决第二个：

临时生效

```
sudo sysctl -w vm.max_map_count=262144
```

永久生效

```
# root用户
vi /etc/sysctl.conf
# 添加以下配置
vm.max_map_count=655360
# 生效
sysctl -p
```

重启依旧报错，查看日志发现web.log报错

```
2019.09.19 17:13:20 WARN web[] [o.a.c.l.WebappClassLoaderBase] The web application [ROOT] appears to have started a thread named [elasticsearch_client_][transport_
java.base@11.0.4/sun.nio.ch.EPoll.wait(Native Method)
java.base@11.0.4/sun.nio.ch.EPollSelectorImpl.doSelect(EPollSelectorImpl.java:120)
java.base@11.0.4/sun.nio.ch.SelectorImpl.lockAndDoSelect(SelectorImpl.java:124)
java.base@11.0.4/sun.nio.ch.SelectorImpl.select(SelectorImpl.java:136)
app//io.netty.channel.nio.SelectedSelectionKeySetSelector.select(SelectedSelectionKeySetSelector.java:62)
app//io.netty.channel.nio.NioEventLoop.select(NioEventLoop.java:765)
app//io.netty.channel.nio.NioEventLoop.run(NioEventLoop.java:413)
app//io.netty.util.concurrent.SingleThreadEventExecutor$5.run(SingleThreadEventExecutor.java:909)
java.base@11.0.4/java.lang.Thread.run(Thread.java:834)
2019.09.19 17:13:20 INFO web[] [o.s.s.a.EmbeddedTomcat] HTTP connector enabled on port 9002
2019.09.19 17:13:20 INFO web[] [o.s.p.ProcessEntryPoint] Hard stopping process
```

经过排查是postgresql中sonar数据库未建立。

连接postgresql

```
CREATE DATABASE sonar WITH OWNER=postgres ENCODING=' UTF-8' ;
```

# Continuous Code Quality

Log in

Read documentation

P


## Multi-Language

20+ programming languages are supported by SonarQube thanks to our in-house code analyzers, including:



- Java
- C/C++
- C#
- COBOL
- ABAP
- HTML
- RPG
- JavaScript
- VB.NET
- PL/SQL
- T-SQL
- Flex
- Python
- Groovy
- PHP
- Swift

## Quality Model

### Reliability

 **Bugs** track code that is demonstrably wrong or highly likely to yield unexpected behavior.

### Security

-  **Vulnerabilities** are raised on code that can be exploited by hackers.
-  **Security Hotspots** are raised on security-sensitive code that requires manual review to assess whether or not a vulnerability exists.

### Maintainability

 **Code Quality** issues are raised on code that is difficult to maintain.

启动成功。

初始化密码admin/admin

6.安装中文插件

sonarqube

ProjectsIssuesRulesQuality ProfilesQuality GatesAdministration

Administration

ConfigurationSecurityProjectsSystemMarketplace

Marketplace

You are currently running a Community Edition.

Discover more features with SonarSource Editions:

Developer Edition

- Branch and Pull Requests analysis
- Analysis of additional languages: C/C++, Objective-C, PL/SQL, ABAP, TSQL, Swift
- Detection of security vulnerabilities
- SonarLint notifications

Ask for more information

Enterprise Edition

- Portfolio management
- Executive reporting
- Analysis of additional languages: Apex, COBOL, PL/I, RPG & VB6
- Parallel processing of analysis reports
- Project transfer

Ask for more information

Data Center

Support for High availability, no redundant, no worrying about

Ask for more information

Plugins

AllInstalledUpdates Only

Chinese

Chinese PackLocalization

1.29Support SonarQube 7.9

Homepage

Issue Tracker

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