

Jayden Lewis
Pritesh Patel
COMP 3104 - 15783
101484621
16/11/2025

Assignment 02 - Part 02

Contents

VM Creation Completion..... 1

SSH Connection To VM..... 2

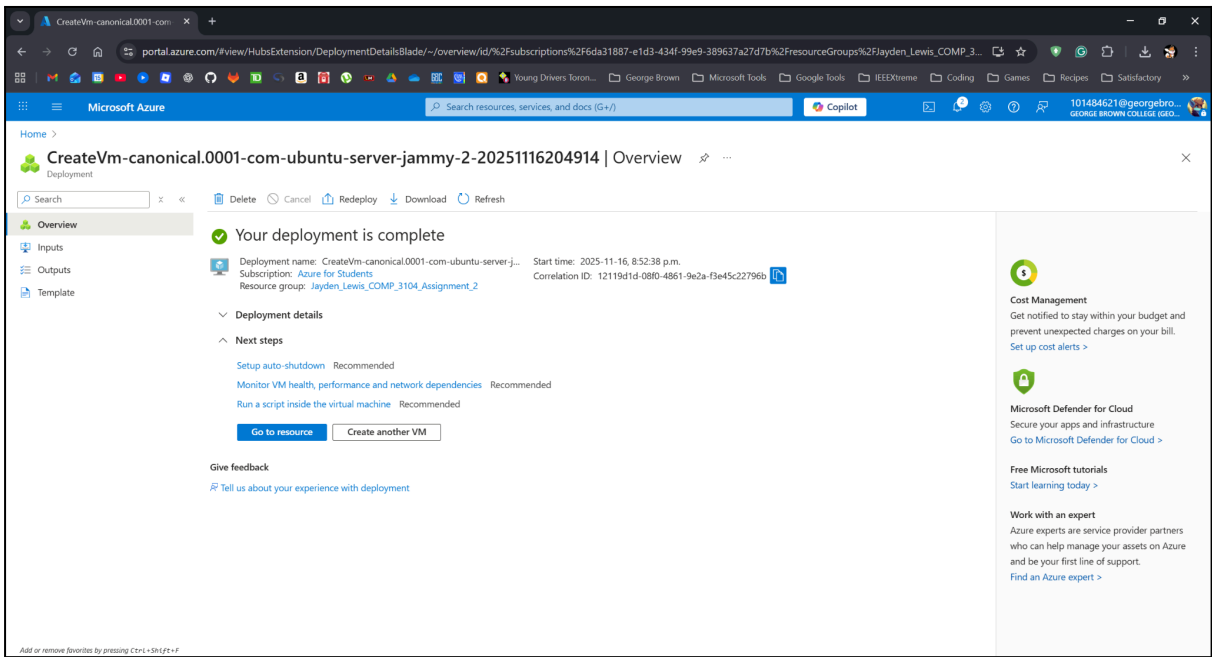
Java Installation & Version Check..... 3

PostgreSQL Installation & User Setup For SonarQube..... 4

SonarQube Configuration & Service Status Check..... 5

IP Address / SonarQube Server URL..... 9

VM Creation Completion



SSH Connection To VM

```
azureuser@Virtual-Machine-02: ~
PS D:\Safe_Drive\comp_3104-developer_operations\azure_keys> ssh -i Virtual-Machine-02_key.pem azureuser@20.3.249.241
Welcome to Ubuntu 22.04.5 LTS (GNU/Linux 6.8.0-1041-azure x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/pro

System information as of Mon Nov 17 02:31:35 UTC 2025

System load:  0.08          Processes:      130
Usage of /:   6.3% of 28.89GB Users logged in: 0
Memory usage: 4%          IPv4 address for eth0: 172.20.0.4
Swap usage:   0%

Expanded Security Maintenance for Applications is not enabled.

11 updates can be applied immediately.
10 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

azureuser@Virtual-Machine-02: $
```

Java Installation & Version Check

```
azureuser@Virtual-Machine-02: ~
azureuser@Virtual-Machine-02: $ sudo apt update
Hit:1 http://azure.archive.ubuntu.com/ubuntu jammy InRelease
Hit:2 http://azure.archive.ubuntu.com/ubuntu jammy-updates InRelease
Hit:3 http://azure.archive.ubuntu.com/ubuntu jammy-backports InRelease
Hit:4 http://azure.archive.ubuntu.com/ubuntu jammy-security InRelease
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
11 packages can be upgraded. Run 'apt list --upgradable' to see them.
azureuser@Virtual-Machine-02: $ sudo apt install openjdk-17-jdk -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  adwaita-icon-theme alsa-topology-conf alsa-ucm-conf at-spi2-core ca-certificates-java dconf-gsettings-backend dconf-service fontconfig
  fontconfig-config fonts-dejavu-core fonts-dejavu-extra gsettings-desktop-schemas gtk-update-icon-cache hicolor-icon-theme humanity-icon-theme
  java-common libasound2 libasound2-data libatk-bridge2.0-0 libatk-wrapper-java libatk-wrapper-java-jni libatk1.0-0 libatk1.0-data libatspi2.0-0
  libavahi-client3 libavahi-common-data libavahi-common3 libcairo-gobject2 libcairo2 libcups2 libdatrie1 libdconf1 libdeflate0 libdrm-amdgpu1
  libdrm-intel1 libdrm-nouveau2 libdrm-radeon1 libfontconfig1 libfontenc1 libgail-common libgail18 libgdk-pixbuf-2.0-0 libgdk-pixbuf2.0-bin
  libgdk-pixbuf2.0-common libgif7 libgl1 libgl1-amdgpu-dri libgl1-mesa-dri libglapi-mesa libglvnd0 libglx-mesa0 libglx0 libgraphite2-3 libgtk2.0-0
  libgtk2.0-bin libgtk2.0-common libharfbuzz0b libice-dev libice6 libjpeg-turbo8 libjpeg8 liblcms2-2 libllvm15 libpango-1.0-0
  libpangocairo-1.0-0 libpangoft2-1.0-0 libpciaccess0 libpcsc-lite1 libpixman-1-0 libpthread-stubs0-dev librsvg2-2 librsvg2-common libsm-dev libsm6
  libthai-data libthai0 libtiff5 libwebp7 libx11-dev libx11-xcb1 libxau-dev libxaw7 libxcb-dri2-0 libxcb-dri3-0 libxcb-glx0 libxcb-present0
  libxcb-randr0 libxcb-render0 libxcb-shape0 libxcb-shm0 libxcb-sync1 libxcb-xfixes0 libxcb1-dev libxcomposite1 libxcursor1 libxdamage1 libxdmcp-dev
  libxf86vm3 libxft2 libxi6 libxinerama1 libxkbfile1 libxmu6 libxpm4 libxrandr2 libxrender1 libxshmfence1 libxt-dev libxt6 libxtst6 libxv1
  libxxf86dga1 libxxf86vm1 openjdk-17-jdk-headless openjdk-17-jre openjdk-17-jre-headless session-migration ubuntu-mono x11-common x11-utils
  x11proto-dev xorg-sgml-doctools xtrans-dev
Suggested packages:
  default-jre libasound2-plugins alsa-utils cups-common gvfs libice-doc liblcms2-utils pcsd librsvg2-bin libsm-doc libx11-doc libxcb-doc libxt-doc
  openjdk-17-demo openjdk-17-source visualvm libnss-mdns fonts-ipafont-gothic fonts-ipafont-mincho fonts-wqy-microhei | fonts-wqy-zenhei fonts-indic
  mesa-utils
The following NEW packages will be installed:
  adwaita-icon-theme alsa-topology-conf alsa-ucm-conf at-spi2-core ca-certificates-java dconf-gsettings-backend dconf-service fontconfig
  fontconfig-config fonts-dejavu-core fonts-dejavu-extra gsettings-desktop-schemas gtk-update-icon-cache hicolor-icon-theme humanity-icon-theme
  java-common libasound2 libasound2-data libatk-bridge2.0-0 libatk-wrapper-java libatk-wrapper-java-jni libatk1.0-0 libatk1.0-data libatspi2.0-0
  libavahi-client3 libavahi-common-data libavahi-common3 libcairo-gobject2 libcairo2 libcups2 libdatrie1 libdconf1 libdeflate0 libdrm-amdgpu1
  libdrm-intel1 libdrm-nouveau2 libdrm-radeon1 libfontconfig1 libfontenc1 libgail-common libgail18 libgdk-pixbuf-2.0-0 libgdk-pixbuf2.0-bin
  libgdk-pixbuf2.0-common libgif7 libgl1 libgl1-amdgpu-dri libgl1-mesa-dri libglapi-mesa libglvnd0 libglx-mesa0 libglx0 libgraphite2-3 libgtk2.0-0
  libgtk2.0-bin libgtk2.0-common libharfbuzz0b libice-dev libice6 libjpeg-turbo8 libjpeg8 liblcms2-2 libllvm15 libpango-1.0-0
  libpangocairo-1.0-0 libpangoft2-1.0-0 libpciaccess0 libpcsc-lite1 libpixman-1-0 libpthread-stubs0-dev librsvg2-2 librsvg2-common libsm-dev libsm6
  libthai-data libthai0 libtiff5 libwebp7 libx11-dev libx11-xcb1 libxau-dev libxaw7 libxcb-dri2-0 libxcb-dri3-0 libxcb-glx0 libxcb-present0
  libxcb-randr0 libxcb-render0 libxcb-shape0 libxcb-shm0 libxcb-sync1 libxcb-xfixes0 libxcb1-dev libxcomposite1 libxcursor1 libxdamage1 libxdmcp-dev
  libxf86vm3 libxft2 libxi6 libxinerama1 libxkbfile1 libxmu6 libxpm4 libxrandr2 libxrender1 libxshmfence1 libxt-dev libxt6 libxtst6 libxv1
  libxxf86dga1 libxxf86vm1 openjdk-17-jdk-headless openjdk-17-jre openjdk-17-jre-headless session-migration ubuntu-mono x11-common
  x11-utils x11proto-dev xorg-sgml-doctools xtrans-dev
0 upgraded, 125 newly installed, 0 to remove and 11 not upgraded.
Need to get 181 MB of archives.
After this operation, 530 MB of additional disk space will be used.
Get:1 http://azure.archive.ubuntu.com/ubuntu jammy/main amd64 hicolor-icon-theme all 0.17-2 [9976 B]
Get:2 http://azure.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libgdk-pixbuf2.0-common all 2.42.8+dfsg-1ubuntu0.4 [5546 B]
Get:3 http://azure.archive.ubuntu.com/ubuntu jammy/main amd64 libjpeg-turbo8 amd64 2.1.2-0ubuntu1 [134 kB]
Get:4 http://azure.archive.ubuntu.com/ubuntu jammy/main amd64 libjpeg8 amd64 8c-2ubuntu10 [2264 B]
Get:5 http://azure.archive.ubuntu.com/ubuntu jammy/main amd64 libdeflate0 amd64 1.10-2 [70.9 kB]
Get:6 http://azure.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libjpeg8 amd64 2.1-3.1ubuntu0.22.04.1 [29.2 kB]
Get:7 http://azure.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libwebp7 amd64 1.2.2-2ubuntu0.22.04.2 [206 kB]
Get:8 http://azure.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libtiff5 amd64 4.3.0-6ubuntu0.12 [185 kB]
Get:9 http://azure.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libgdk-pixbuf-2.0-0 amd64 2.42.8+dfsg-1ubuntu0.4 [148 kB]
Get:10 http://azure.archive.ubuntu.com/ubuntu jammy-updates/main amd64 gtk-update-icon-cache amd64 3.24.33-1ubuntu2.2 [31.4 kB]
Get:11 http://azure.archive.ubuntu.com/ubuntu jammy/main amd64 humanity-icon-theme all 0.6.16 [1282 kB]
Get:12 http://azure.archive.ubuntu.com/ubuntu jammy/main amd64 ubuntu-mono all 20.10-0ubuntu2 [153 kB]
```

```
azureuser@Virtual-Machine-02: ~
azureuser@Virtual-Machine-02: $ java -version
openjdk version "17.0.16" 2025-07-15
OpenJDK Runtime Environment (build 17.0.16+8-Ubuntu-0ubuntu122.04.1)
OpenJDK 64-Bit Server VM (build 17.0.16+8-Ubuntu-0ubuntu122.04.1, mixed mode, sharing)
azureuser@Virtual-Machine-02: $
```

PostgreSQL Installation & User Setup For SonarQube

```
azureuser@Virtual-Machine-02: ~
azureuser@Virtual-Machine-02: $ sudo apt install postgresql postgresql-contrib -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  libcommon-sense-perl libjson-perl libjson-xs-perl libllvm14 libpq5 libtypes-serialiser-perl postgresql-14 postgresql-client-14
  postgresql-client-common postgresql-common postgresql-contrib ssl-cert
Suggested packages:
  postgresql-doc postgresql-doc-14
The following NEW packages will be installed:
  libcommon-sense-perl libjson-perl libjson-xs-perl libllvm14 libpq5 libtypes-serialiser-perl postgresql postgresql-14 postgresql-client-14
  postgresql-client-common postgresql-common postgresql-contrib ssl-cert
0 upgraded, 13 newly installed, 0 to remove and 11 not upgraded.
Need to get 42.0 MB of archives.
After this operation, 160 MB of additional disk space will be used.
Get:1 http://azure.archive.ubuntu.com/ubuntu jammy/main amd64 libcommon-sense-perl amd64 3.75-2build1 [21.1 kB]
Get:2 http://azure.archive.ubuntu.com/ubuntu jammy/main amd64 libjson-perl all 4.04000-1 [81.8 kB]
Get:3 http://azure.archive.ubuntu.com/ubuntu jammy/main amd64 libtypes-serialiser-perl all 1.01-1 [11.6 kB]
Get:4 http://azure.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libjson-xs-perl amd64 4.040-0ubuntu0.22.04.1 [87.0 kB]
Get:5 http://azure.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libllvm14 amd64 1:14.0.0-1ubuntu1.1 [24.0 MB]
Get:6 http://azure.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libpq5 amd64 14.19-0ubuntu0.22.04.1 [152 kB]
Get:7 http://azure.archive.ubuntu.com/ubuntu jammy/main amd64 postgresql-client-common all 238 [29.6 kB]
Get:8 http://azure.archive.ubuntu.com/ubuntu jammy-updates/main amd64 postgresql-client-14 amd64 14.19-0ubuntu0.22.04.1 [1249 kB]
Get:9 http://azure.archive.ubuntu.com/ubuntu jammy/main amd64 ssl-cert all 1.1.2 [17.4 kB]
Get:10 http://azure.archive.ubuntu.com/ubuntu jammy/main amd64 postgresql-common all 238 [169 kB]
Get:11 http://azure.archive.ubuntu.com/ubuntu jammy-updates/main amd64 postgresql-14 amd64 14.19-0ubuntu0.22.04.1 [16.2 MB]
Get:12 http://azure.archive.ubuntu.com/ubuntu jammy/main amd64 postgresql all 14+238 [3288 B]
Get:13 http://azure.archive.ubuntu.com/ubuntu jammy/main amd64 postgresql-contrib all 14+238 [3292 B]
Fetched 42.0 MB in 1s (34.0 MB/s)
Preconfiguring packages ...
Selecting previously unselected package libcommon-sense-perl:amd64.
(Reading database ... 79169 files and directories currently installed.)
Preparing to unpack .../00-libcommon-sense-perl_3.75-2build1_amd64.deb ...
Unpacking libcommon-sense-perl:amd64 (3.75-2build1) ...
Selecting previously unselected package libjson-perl.
Preparing to unpack .../01-libjson-perl_4.04000-1_all.deb ...
Unpacking libjson-perl (4.04000-1) ...
Selecting previously unselected package libtypes-serialiser-perl.
Preparing to unpack .../02-libtypes-serialiser-perl_1.01-1_all.deb ...
Unpacking libtypes-serialiser-perl (1.01-1) ...
Selecting previously unselected package libjson-xs-perl.
Preparing to unpack .../03-libjson-xs-perl_4.040-0ubuntu0.22.04.1_amd64.deb ...
Unpacking libjson-xs-perl (4.040-0ubuntu0.22.04.1) ...
Selecting previously unselected package libllvm14:amd64.
Preparing to unpack .../04-libllvm14_1%3a14.0.0-1ubuntu1.1_amd64.deb ...
Unpacking libllvm14:amd64 (1:14.0.0-1ubuntu1.1) ...
Selecting previously unselected package libpq5:amd64.
Preparing to unpack .../05-libpq5_14.19-0ubuntu0.22.04.1_amd64.deb ...
Unpacking libpq5:amd64 (14.19-0ubuntu0.22.04.1) ...
Selecting previously unselected package postgresql-client-common.
Preparing to unpack .../06-postgresql-client-common_238_all.deb ...
Unpacking postgresql-client-common (238) ...
Selecting previously unselected package postgresql-client-14.
Preparing to unpack .../07-postgresql-client-14_14.19-0ubuntu0.22.04.1_amd64.deb ...
Unpacking postgresql-client-14 (14.19-0ubuntu0.22.04.1) ...
Selecting previously unselected package ssl-cert.
Preparing to unpack .../08-ssl-cert_1.1.2_all.deb ...
Unpacking ssl-cert (1.1.2) ...
Selecting previously unselected package postgresql-common.
Preparing to unpack .../09-postgresql-common_238_all.deb ...
```

```
azureuser@Virtual-Machine-02: ~
azureuser@Virtual-Machine-02: $ sudo systemctl start postgresql
azureuser@Virtual-Machine-02: $ sudo systemctl enable postgresql
Synchronizing state of postgresql.service with SysV service script with /lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable postgresql
azureuser@Virtual-Machine-02: $ sudo -i -u postgres
postgres@Virtual-Machine-02:~$ psql
psql (14.19 (Ubuntu 14.19-0ubuntu0.22.04.1))
Type "help" for help.

postgres=# CREATE DATABASE sonar;
CREATE DATABASE
postgres=# CREATE USER sonar WITH PASSWORD 'sonar';
CREATE ROLE
postgres=# ALTER ROLE sonar SET client_encoding TO 'utf8';
ALTER ROLE
postgres=# ALTER ROLE sonar SET default_transaction_isolation TO 'read committed';
ALTER ROLE
postgres=# ALTER ROLE sonar SET timezone TO 'UTC';
ALTER ROLE
postgres=# GRANT ALL PRIVILEGES ON DATABASE sonar TO sonar;
GRANT
postgres=# \q
postgres@Virtual-Machine-02:~$ exit
logout
azureuser@Virtual-Machine-02: $
```

SonarQube Configuration & Service Status Check

```
azureuser@Virtual-Machine-02: ~
azureuser@Virtual-Machine-02: $ sudo apt install unzip wget -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
wget is already the newest version (1.21.2-2ubuntu1.1).
wget set to manually installed.
Suggested packages:
  zip
The following NEW packages will be installed:
  unzip
0 upgraded, 1 newly installed, 0 to remove and 11 not upgraded.
Need to get 175 kB of archives.
After this operation, 386 kB of additional disk space will be used.
Get:1 http://azure.archive.ubuntu.com/ubuntu jammy-updates/main amd64 unzip amd64 6.0-26ubuntu3.2 [175 kB]
Fetched 175 kB in 0s (6978 kB/s)
Selecting previously unselected package unzip.
(Reading database ... 81061 files and directories currently installed.)
Preparing to unpack .../unzip_6.0-26ubuntu3.2_amd64.deb ...
Unpacking unzip (6.0-26ubuntu3.2) ...
Setting up unzip (6.0-26ubuntu3.2) ...
Processing triggers for man-db (2.10.2-1) ...
Scanning processes...
Scanning linux images...

Running kernel seems to be up-to-date.

No services need to be restarted.

No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
azureuser@Virtual-Machine-02: $
```

```
azureuser@Virtual-Machine-02: ~
azureuser@Virtual-Machine-02: $ wget https://binaries.sonarsource.com/Distribution/sonarqube/sonarqube-9.9.0.65466.zip
--2025-11-17 02:51:17-- https://binaries.sonarsource.com/Distribution/sonarqube/sonarqube-9.9.0.65466.zip
Resolving binaries.sonarsource.com (binaries.sonarsource.com)... 18.65.229.42, 18.65.229.36, 18.65.229.102, ...
Connecting to binaries.sonarsource.com (binaries.sonarsource.com)|18.65.229.42|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 293899334 (280M) [binary/octet-stream]
Saving to: 'sonarqube-9.9.0.65466.zip'

sonarqube-9.9.0.65466.zip      100%[=====] 280.28M  395MB/s  in 0.7s

2025-11-17 02:51:19 (395 MB/s) - 'sonarqube-9.9.0.65466.zip' saved [293899334/293899334]

azureuser@Virtual-Machine-02: $
```

```
azureuser@Virtual-Machine-02: ~
azureuser@Virtual-Machine-02: $ unzip sonarqube-9.9.0.65466.zip
Archive:  sonarqube-9.9.0.65466.zip
  creating:  sonarqube-9.9.0.65466/
  inflating:  sonarqube-9.9.0.65466/dependency-license.json
  creating:  sonarqube-9.9.0.65466/data/
  inflating:  sonarqube-9.9.0.65466/data/README.txt
  creating:  sonarqube-9.9.0.65466/logs/
  inflating:  sonarqube-9.9.0.65466/logs/README.txt
  creating:  sonarqube-9.9.0.65466/bin/
  creating:  sonarqube-9.9.0.65466/bin/windows-x86-64/
  inflating:  sonarqube-9.9.0.65466/bin/windows-x86-64/SonarService.bat
  creating:  sonarqube-9.9.0.65466/bin/windows-x86-64/lib/
  inflating:  sonarqube-9.9.0.65466/bin/windows-x86-64/lib/find_java.bat
  inflating:  sonarqube-9.9.0.65466/bin/windows-x86-64/lib/SonarServiceWrapper.exe
  creating:  sonarqube-9.9.0.65466/bin/winsw-license/
  inflating:  sonarqube-9.9.0.65466/bin/winsw-license/LICENSE.txt
  creating:  sonarqube-9.9.0.65466/temp/
  inflating:  sonarqube-9.9.0.65466/temp/README.txt
  creating:  sonarqube-9.9.0.65466/extensions/
  creating:  sonarqube-9.9.0.65466/extensions/plugins/
  inflating:  sonarqube-9.9.0.65466/extensions/plugins/README.txt
  creating:  sonarqube-9.9.0.65466/extensions/jdbc-driver/
  creating:  sonarqube-9.9.0.65466/extensions/jdbc-driver/oracle/
  inflating:  sonarqube-9.9.0.65466/extensions/jdbc-driver/oracle/README.txt
  inflating:  sonarqube-9.9.0.65466/COPYING
  creating:  sonarqube-9.9.0.65466/elasticsearch/
  creating:  sonarqube-9.9.0.65466/elasticsearch/lib/
  inflating:  sonarqube-9.9.0.65466/elasticsearch/lib/elasticsearch-7.17.8.jar
  inflating:  sonarqube-9.9.0.65466/elasticsearch/lib/java-version-checker-7.17.8.jar
  inflating:  sonarqube-9.9.0.65466/elasticsearch/lib/elasticsearch-launchers-7.17.8.jar
  inflating:  sonarqube-9.9.0.65466/elasticsearch/lib/elasticsearch-x-content-7.17.8.jar
  inflating:  sonarqube-9.9.0.65466/elasticsearch/lib/elasticsearch-lz4-7.17.8.jar
  inflating:  sonarqube-9.9.0.65466/elasticsearch/lib/elasticsearch-cli-7.17.8.jar
  inflating:  sonarqube-9.9.0.65466/elasticsearch/lib/elasticsearch-core-7.17.8.jar
  inflating:  sonarqube-9.9.0.65466/elasticsearch/lib/elasticsearch-secure-sm-7.17.8.jar
  inflating:  sonarqube-9.9.0.65466/elasticsearch/lib/elasticsearch-geo-7.17.8.jar
  inflating:  sonarqube-9.9.0.65466/elasticsearch/lib/lucene-core-8.11.1.jar
  inflating:  sonarqube-9.9.0.65466/elasticsearch/lib/lucene-analyzers-common-8.11.1.jar
  inflating:  sonarqube-9.9.0.65466/elasticsearch/lib/lucene-backward-codecs-8.11.1.jar
  inflating:  sonarqube-9.9.0.65466/elasticsearch/lib/lucene-grouping-8.11.1.jar
  inflating:  sonarqube-9.9.0.65466/elasticsearch/lib/lucene-highlighter-8.11.1.jar
  inflating:  sonarqube-9.9.0.65466/elasticsearch/lib/lucene-join-8.11.1.jar
  inflating:  sonarqube-9.9.0.65466/elasticsearch/lib/lucene-memory-8.11.1.jar
  inflating:  sonarqube-9.9.0.65466/elasticsearch/lib/lucene-misc-8.11.1.jar
  inflating:  sonarqube-9.9.0.65466/elasticsearch/lib/lucene-queries-8.11.1.jar
  inflating:  sonarqube-9.9.0.65466/elasticsearch/lib/lucene-queryparser-8.11.1.jar
  inflating:  sonarqube-9.9.0.65466/elasticsearch/lib/lucene-sandbox-8.11.1.jar
  inflating:  sonarqube-9.9.0.65466/elasticsearch/lib/lucene-spatial3d-8.11.1.jar
  inflating:  sonarqube-9.9.0.65466/elasticsearch/lib/lucene-suggest-8.11.1.jar
  inflating:  sonarqube-9.9.0.65466/elasticsearch/lib/hppc-0.8.1.jar
  inflating:  sonarqube-9.9.0.65466/elasticsearch/lib/joda-time-2.10.10.jar
  inflating:  sonarqube-9.9.0.65466/elasticsearch/lib/t-digest-3.2.jar
  inflating:  sonarqube-9.9.0.65466/elasticsearch/lib/HdrHistogram-2.1.9.jar
  inflating:  sonarqube-9.9.0.65466/elasticsearch/lib/log4j-api-2.17.1.jar
  inflating:  sonarqube-9.9.0.65466/elasticsearch/lib/elasticsearch-log4j-7.17.8.jar
  inflating:  sonarqube-9.9.0.65466/elasticsearch/lib/jna-5.10.0.jar
  inflating:  sonarqube-9.9.0.65466/elasticsearch/lib/elasticsearch-plugin-classloader-7.17.8.jar
  inflating:  sonarqube-9.9.0.65466/elasticsearch/lib/snakeyaml-1.33.jar
  inflating:  sonarqube-9.9.0.65466/elasticsearch/lib/jackson-core-2.10.4.jar
  inflating:  sonarqube-9.9.0.65466/elasticsearch/lib/jackson-dataformat-smile-2.10.4.jar
```

```
azureuser@Virtual-Machine-02: ~
inflating: sonarqube-9.9.0.65466/web/js/outV5A3AQEU.css
inflating: sonarqube-9.9.0.65466/web/js/outV5A3AQEU.css.map
inflating: sonarqube-9.9.0.65466/web/js/outL2Z6DMVA.js
inflating: sonarqube-9.9.0.65466/web/js/outL2Z6DMVA.js.map
inflating: sonarqube-9.9.0.65466/web/apple-touch-icon-152x152.png
inflating: sonarqube-9.9.0.65466/web/apple-touch-icon-180x180.png
inflating: sonarqube-9.9.0.65466/web/WEB-INF/web.xml
inflating: sonarqube-9.9.0.65466/web/apple-touch-icon-76x76.png
inflating: sonarqube-9.9.0.65466/web/robots.txt
inflating: sonarqube-9.9.0.65466/web/apple-touch-icon-120x120.png
inflating: sonarqube-9.9.0.65466/web/.htaccess
inflating: sonarqube-9.9.0.65466/web/apple-touch-icon.png
inflating: sonarqube-9.9.0.65466/web/apple-touch-icon-72x72.png
inflating: sonarqube-9.9.0.65466/web/favicon.ico
inflating: sonarqube-9.9.0.65466/web/apple-touch-icon-precomposed.png
inflating: sonarqube-9.9.0.65466/web/images/source-code.svg
inflating: sonarqube-9.9.0.65466/web/images/activity-chart.svg
creating: sonarqube-9.9.0.65466/web/images/tutorials/
inflating: sonarqube-9.9.0.65466/web/images/tutorials/azure-pipelines.svg
inflating: sonarqube-9.9.0.65466/web/images/tutorials/refresh.svg
inflating: sonarqube-9.9.0.65466/web/images/tutorials/github-actions.svg
inflating: sonarqube-9.9.0.65466/web/images/tutorials/commit.svg
inflating: sonarqube-9.9.0.65466/web/images/tutorials/jenkins.svg
inflating: sonarqube-9.9.0.65466/web/images/tutorials/manual.svg
inflating: sonarqube-9.9.0.65466/web/images/cross.svg
inflating: sonarqube-9.9.0.65466/web/images/loading.gif
inflating: sonarqube-9.9.0.65466/web/images/sq-sl.svg
inflating: sonarqube-9.9.0.65466/web/images/SonarLint-connection-ok.png
creating: sonarqube-9.9.0.65466/web/images/embed-doc/
inflating: sonarqube-9.9.0.65466/web/images/embed-doc/twitter-icon.svg
inflating: sonarqube-9.9.0.65466/web/images/embed-doc/sq-icon.svg
inflating: sonarqube-9.9.0.65466/web/images/hotspot-large.svg
inflating: sonarqube-9.9.0.65466/web/images/filter-large.svg
creating: sonarqube-9.9.0.65466/web/images/alm/
inflating: sonarqube-9.9.0.65466/web/images/alm/azure.svg
inflating: sonarqube-9.9.0.65466/web/images/alm/gitlab.svg
inflating: sonarqube-9.9.0.65466/web/images/alm/github.svg
inflating: sonarqube-9.9.0.65466/web/images/alm/bitbucket-white.svg
inflating: sonarqube-9.9.0.65466/web/images/alm/bitbucket.svg
inflating: sonarqube-9.9.0.65466/web/images/alm/github-white.svg
inflating: sonarqube-9.9.0.65466/web/images/SonarLint-connection-request.png
inflating: sonarqube-9.9.0.65466/web/images/check.svg
inflating: sonarqube-9.9.0.65466/web/images/saml.png
inflating: sonarqube-9.9.0.65466/web/apple-touch-icon-144x144.png
inflating: sonarqube-9.9.0.65466/web/apple-touch-icon-114x114.png
inflating: sonarqube-9.9.0.65466/web/apple-touch-icon-57x57.png
inflating: sonarqube-9.9.0.65466/web/index.html
creating: sonarqube-9.9.0.65466/lib/jdbc/
creating: sonarqube-9.9.0.65466/lib/jdbc/mssql/
inflating: sonarqube-9.9.0.65466/lib/jdbc/mssql/mssql-jdbc-11.2.2.jre17.jar
creating: sonarqube-9.9.0.65466/lib/jdbc/postgresql/
inflating: sonarqube-9.9.0.65466/lib/jdbc/postgresql/postgresql-42.5.1.jar
creating: sonarqube-9.9.0.65466/lib/jdbc/h2/
inflating: sonarqube-9.9.0.65466/lib/jdbc/h2/h2-2.1.214.jar
inflating: sonarqube-9.9.0.65466/lib/sonar-shutdowner-9.9.0.65466.jar
creating: sonarqube-9.9.0.65466/elasticsearch/plugins/
azureuser@Virtual-Machine-02: $ sudo mv sonarqube-9.9.0.65466 /opt/sonarqube
azureuser@Virtual-Machine-02: $
```

```
azureuser@Virtual-Machine-02: ~
azureuser@Virtual-Machine-02: $ sudo groupadd sonar
azureuser@Virtual-Machine-02: $ sudo useradd -d /opt/sonarqube -g sonar sonar
azureuser@Virtual-Machine-02: $ sudo chown -R sonar:sonar /opt/sonarqube
azureuser@Virtual-Machine-02: $
```


IP Address / SonarQube Server URL

<http://20.3.249.241:9000/projects/create>

```
azureuser@Virtual-Machine-02: ~  
azureuser@Virtual-Machine-02: $ sudo ufw status  
Status: inactive  
azureuser@Virtual-Machine-02: $
```

