VM creation

VM ssh

Java

```
Adding debian:emSign_Root_CA_-_C1.pem
Adding debian:emSign_Root_CA_-_G1.pem
Adding debian:vTrus_ECC_Root_CA.pem
Adding debian:vTrus_Root_CA.pem
done.
Setting up openjdk-17-jdk-headless:amd64 (17.0.17+10-1~24.04) ...
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jar to provide /usr/bin/jar (jar) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jarsigner to provide /usr/bin/jarsigner (jarsigner) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/javac to provide /usr/bin/javac (javac) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/javadoc to provide /usr/bin/javadoc (javadoc) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/javap to provide /usr/bin/javap (javap) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jcmd to provide /usr/bin/jcmd (jcmd) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jdb to provide /usr/bin/jdb (jdb) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jdeprscan to provide /usr/bin/jdeprscan (jdeprscan) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jdeps to provide /usr/bin/jdeps (jdeps) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jfr to provide /usr/bin/jfr (jfr) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jimage to provide /usr/bin/jimage (jimage) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jinfo to provide /usr/bin/jinfo (jinfo) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jlink to provide /usr/bin/jlink (jlink) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jmap to provide /usr/bin/jmap (jmap) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jmod to provide /usr/bin/jmod (jmod) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jps to provide /usr/bin/jps (jps) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jrunscript to provide /usr/bin/jrunscript (jrunscript) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jshell to provide /usr/bin/jshell (jshell) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jstack to provide /usr/bin/jstack (jstack) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jstat to provide /usr/bin/jstat (jstat) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jstatd to provide /usr/bin/jstatd (jstatd) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/serialver to provide /usr/bin/serialver (serialver) in auto mode
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jhsdb to provide /usr/bin/jhsdb (jhsdb) in auto mode
Setting up openjdk-17-jre:amd64 (17.0.17+10-1~24.04) ...
Setting up openjdk-17-jdk:amd64 (17.0.17+10-1~24.04) ...
update-alternatives: using /usr/lib/jvm/java-17-openjdk-amd64/bin/jconsole to provide /usr/bin/jconsole (jconsole) in auto mode
Processing triggers for libc-bin (2.39-0ubuntu8.6) ...
Processing triggers for libgdk-pixbuf-2.0-0:amd64 (2.42.10+dfsg-3ubuntu3.2) ...
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-2:~$ java -version
openjdk version "17.0.17" 2025-10-21
OpenJDK Runtime Environment (build 17.0.17+10-Ubuntu-124.04)
OpenJDK 64-Bit Server VM (build 17.0.17+10-Ubuntu-124.04, mixed mode, sharing)
azureuser@virtual-machine-2:~$
```

Postgres

```
ALTER: command not found
ALTER: command not found
GRANT: command not found
Command 'q' not found, but can be installed with:
snap install q                    # version 1.6.3-1, or
apt  install python3-q-text-as-data  # version 3.1.6-3
See 'snap info q' for additional versions.
logout
azureuser@virtual-machine-2:~$ sudo -i -u postgres
postgres@virtual-machine-2:~$ psql
psql (16.10 (Ubuntu 16.10-0ubuntu0.24.04.1))
Type "help" for help.

postgres=# CREATE DATABASE sonar;
CREATE DATABASE
postgres=# CREATE USER sonar WITH PASSWORD 'sonar';
ERROR:  role "sonar" already exists
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-2:~$ exit
logout
azureuser@virtual-machine-2:~$
```

Sonar

```
Created symtink /etc/systemd/system/multi-user.target.wants/sonarqube.service → /etc/systemd/system/sonarqube.service.
azureuser@virtual-machine-2:~$ sudo systemctl status sonarqube
● sonarqube.service - SonarQube service
     Loaded: loaded (/etc/systemd/system/sonarqube.service; enabled; preset: enabled)
     Active: active (running) since Mon 2025-11-24 03:38:12 UTC; 280ms ago
    Process: 6931 ExecStart=/opt/sonarqube/bin/linux-x86-64/sonar.sh start (code=exited, status=0/SUCCESS)
   Main PID: 6954 (java)
      Tasks: 14 (limit: 993)
     Memory: 51.0M (peak: 51.0M)
        CPU: 120ms
     CGroup: /system.slice/sonarqube.service
             └─6954 java -Xms8m -Xmx32m --add-exports=java.base/jdk.internal.ref=ALL-UNNAMED --add-opens=java.base/java.lang=ALL-UNNAMED --add-opens=java.base/java.nio=ALL-UNNAMED --add-opens=java.base/sun.ni

Nov 24 03:38:11 virtual-machine-2 systemd[1]: sonarqube.service: Consumed 2.028s CPU time, 42.6M memory peak, 0B memory swap peak.
Nov 24 03:38:11 virtual-machine-2 systemd[1]: sonarqube.service: Scheduled restart job, restart counter is at 1.
Nov 24 03:38:11 virtual-machine-2 systemd[1]: Starting sonarqube.service - SonarQube service...
Nov 24 03:38:11 virtual-machine-2 sonar.sh[6931]: /usr/bin/java
Nov 24 03:38:11 virtual-machine-2 sonar.sh[6931]: Starting SonarQube...
Nov 24 03:38:12 virtual-machine-2 sonar.sh[6931]: Started SonarQube.
Nov 24 03:38:12 virtual-machine-2 systemd[1]: Started sonarqube.service - SonarQube service.
lines 1-18/18 (END)
```