

NEXUS

ARTIFACT:

- It is a file that contains both the compiled code and resource used to compile them
- In java an artifact would be .jar, .war, .ear file
- In NPM an artifact file would be .tar.gz file

JAR: used to aggregate many Java class files and associated metadata and resources

WAR: A collection of JAR-files, Java Servlets, Java classes, libraries, XML files, static web pages.

EAR: It contains jar and war files, which together comprise a Java EE application package

ARTIFACT REPOSITORY:

- It can store multiple different versions of an Artifact.
- If a new war file or tar file is generated it will be stored in server dedicated for artifacts
- For example if there is any error in version x of an artefact code we need to go to VCS and change the commits there we can simply rollback to previous artifact.
- ROLLBACK: To go back to the previous version.

NEXUS REPOSITORY:

- Mainly it is used to store the artifacts (which are ready to deploy) that have been created in code pipeline.
- It will also be able to download the dependencies for the build tool and languages.
- The goal of nexus is to scale the value that a group of Scrum Team working on a single product is able to deliver.

FEATURES:

- Atlassian Crowd support: Manages the people activities.
- Staging & Building: Multiple versions are maintained before deployment
- Tagging: Tag different components of application that can be associated each other.
- Two-part Token system: To overcome the limited security of build tools.
- High availability: If any node crashes we will have another node.
- Repository Health Check (RHC): Recognise security risk in the early stage of code.
- Enterprise support: Full time support for the team to resolve issues.

NEXUS REPOSITORY INSTALLATION:

- Prerequisites
- Open JDK 8
- Minimum CPU's: 4
- Ubuntu Server with User sudo privileges.
- Set User limits
- Web Browser
- Firewall/Inbound port: 22, 8081

INSTALLATION:

- sudo apt-get update -y
- sudo apt install vim -y
- sudo apt install openjdk-8-jre-headless -y
- cd /opt
- sudo wget <https://download.sonatype.com/nexus/3/latest-unix.tar.gz>
- tar -zxvf latest-unix.tar.gz
- sudo mv /opt/nexus-3.30.1-01 /opt/nexus
- sudo adduser nexus
- sudo visudo
- sudo chown -R nexus:nexus /opt/nexus
- sudo chown -R nexus:nexus /opt/sonatype-work
- sudo vim /opt/nexus/bin/nexus.rc
- run_as_user="nexus"

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- sudo vim /opt/nexus/bin/nexus.vminstall
- Replace ../sonatype-work to ./sonatype-work

```
-Xms2703m
-Xmx2703m
-XX:MaxDirectMemorySize=2703m
-XX:+UnlockDiagnosticVMOptions
-XX:+LogVMOutput
-XX:LogFile=./sonatype-work/nexus3/log/jvm.log
-XX:-OmitStackTraceInFastThrow
-Djava.net.preferIPv4Stack=true
-Dkaraf.home=.
-Dkaraf.base=.
-Dkaraf.etc=etc/karaf
-Djava.util.logging.config.file=etc/karaf/java.util.logging.properties
-Dkaraf.data=./sonatype-work/nexus3
-Dkaraf.log=./sonatype-work/nexus3/log
-Djava.io.tmpdir=./sonatype-work/nexus3/tmp
-Dkaraf.startLocalConsole=false
-Djdk.tls.ephemeralDHKeySize=2048
```

- sudo vim /etc/systemd/system/nexus.service

[Unit]

Description=nexus service

After=network.target

[Service]

Type=forking

LimitNOFILE=65536

ExecStart=/opt/nexus/bin/nexus start

ExecStop=/opt/nexus/bin/nexus stop

User=nexus

Restart=on-abort

[Install]

WantedBy=multi-user.target

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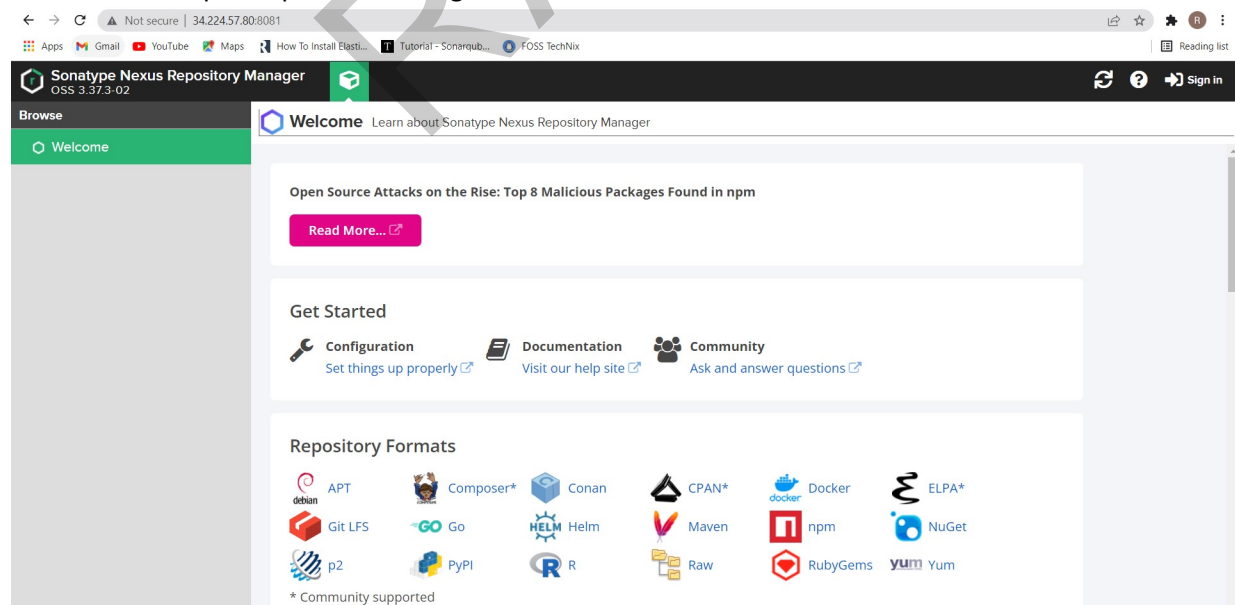
[Install]
WantedBy=multi-user.target
```

- sudo systemctl start nexus
- sudo systemctl enable nexus
- sudo systemctl status nexus

```
ubuntu@ip-172-31-31-17:~$ sudo systemctl start nexus
ubuntu@ip-172-31-31-17:~$ sudo systemctl enable nexus
ubuntu@ip-172-31-31-17:~$ sudo systemctl status nexus
● nexus.service - nexus service
   Loaded: loaded (/etc/systemd/system/nexus.service; enabled; vendor preset: enabled)
   Active: active (running) since Wed 2022-02-16 07:26:35 UTC; 6min ago
     Main PID: 802 (java)
       Tasks: 77 (limit: 19186)
      Memory: 2.2G
      CGroup: /system.slice/nexus.service
              └─802 /usr/lib/jvm/java-8-openjdk-amd64/jre/bin/java -server -Dinstall4j.jvmDir=/usr/lib/jvm/java-8-op

Feb 16 07:26:34 ip-172-31-31-17 systemd[1]: Starting nexus service...
Feb 16 07:26:35 ip-172-31-31-17 nexus[462]: Starting nexus
Feb 16 07:26:35 ip-172-31-31-17 systemd[1]: Started nexus service.
lines 1-12/12 (END)
```

- publicip:8081 : To Login to web console



- cat /opt/nexus/sonatype-work/nexus3/admin.password

RAHAM