**Mega Real-time End to End DevOps Setup**

**[Local Setup]**

**Prerequisite**

1. Oracle VM VirtualBox
2. Vagrant
3. Git bash or equivalent editor

**VM SETUP**

1. Clone source code
2. Cd into the repository.
3. Switch to the local-setup branch.

Bring up vm

$ vagrant up

**PROVISIONING**

#Provisioning all services by Docker-Compose File.

Services

1. Jenkins [Docker Image]

Ci-Cd automation server

1. SonarQube [Docker Image]

continuous inspection of code quality to perform automatic reviews

1. Nexus [Docker Image]

open-source repository that supports many artifacts formats

**SonarQube Configuration**

1. Create username and password
2. Create your project

* Create a project manually.
* Create project Name & Key.
* Analyze your project locally.
* Generate a project token.
* describes your build tool [maven]
* run mvn clean verify sonar:sonar with project parameters Url&Login&Key .

**Nexus Configuration**

1. Create root username and password.
2. Create Mega-Central Repository to download and store all dependencies.
3. Create Mega-Snapshot Repository to store snapshot artifacts.
4. Create Mega-Release Repository to store Releases artifacts.
5. Create Mega-Group Repository to store all Repositories.

**Application** **Configuration [Maven]**

* Put this in your ~/.m2/settings.xml file. This will configure the credentials to publish to your hosted repos, and will tell your mvn to use your repo as a mirror of central

<?xml version="1.0" encoding="UTF-8"?>

<settings xmlns="http://maven.apache.org/SETTINGS/1.1.0"

xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"

xsi:schemaLocation="http://maven.apache.org/SETTINGS/1.1.0 http://maven.apache.org/xsd/settings-1.1.0.xsd">

<servers>

<server>

<id>nexus-snapshots</id>

<username>{username}</username>

<password>{password}</password>

</server>

<server>

<id>nexus-releases</id>

<username>{username}</username>

<password>{password}</password>

</server>

</servers>

<mirrors>

<mirror>

<id>central</id>

<name>central</name>

<url>http://{your-host}:{Port}/repository/{maven-group}/</url>

<mirrorOf>\*</mirrorOf>

</mirror>

</mirrors>

</settings>

* To download dependencies from Nexus, put this in the pom.xml:

<project>

<repositories>

<repository>

<id>maven-group</id>

<url>http://your-host:8081/repository/maven-group/</url>

</repository>

</repositories>

</project>

* Publish your project, add:

<project ...>

<distributionManagement>

<snapshotRepository>

<id>nexus-snapshots</id>

<url>http://your-host:8081/repository/maven-snapshots/</url>

</snapshotRepository>

<repository>

<id>nexus-releases</id>

<url>http://your-host:8081/repository/maven-releases/</url>

</repository>

</distributionManagement>

</project>

**Jenkins Configuration**