Installation and Configuration of Jenkins on Linux (for Microservice)

1. Install jenkins by following the WAR file section in https://jenkins.io/doc/book/installing/ .

2. Install docker by following the link - <https://blogs.oracle.com/virtualization/install-docker-on-oracle-linux-7-v2>

3. Create the docker group.

sudo groupadd docker

4. Add your user to the docker group.

sudo usermod -aG docker $USER

sudo usermod -aG docker jenkins

5. Java is already installed for Oracle 7 linux. Otherwise follow <https://docs.oracle.com/javase/8/docs/technotes/guides/install/linux_jdk.html#BJFJJEFG>

6. Install Maven

cd /home

wget <http://www-us.apache.org/dist/maven/maven-3/3.5.3/binaries/apache-maven-3.5.3-bin.tar.gz>

tar -xvf apache-maven-3.5.3-bin.tar.gz

vi ~/.bash\_profile

Add the variable: MVN\_HOME=/usr/local/apache-maven-3.5.3 *(do this before PATH variable is defined)*

Go to the end of the line where PATH variable is defined and append the following: :$MVN\_HOME:$MVN\_HOME/bin

source ~/.bash\_profile

7. In the configuration page under Build Triggers select Poll SCM and in the Schedule text area enter the following

H/5 \* \* \* \*

8. Configure the pipeline section by following this link <https://getintodevops.com/blog/building-your-first-docker-image-with-jenkins-2-guide-for-developers>

9. Install Docker by following the link <https://docs.docker.com/install/linux/docker-ce/ubuntu/#supported-storage-drivers> and <https://docs.docker.com/install/linux/linux-postinstall/#manage-docker-as-a-non-root-user>

10. Update pom.xml and create a Dockerfile by following the link <https://howtodoinjava.com/docker/docker-hello-world-example/>

11. Now use maven command “mvn clean install dockerfile:build” to create docker image.

12. Use the command “sudo docker run -t financialclearance/eligibility-request-service --name eligibility-request-service-image” to run the docker image (for linux).

docker run -d fc/eligibility-request-service (for Mac OS)

13. sudo docker ps

sudo docker inspect <container ID>

sudo docker inspect 4d56dd851000

14. In the Network Settings section get the IP Address

15. Service is running on <http://172.17.0.2:8080/fcapp_int>

Body:

{

"pyrName": "Cigna",

"hlthPlanName": "Cigna HMO",

"pyrEnrolleeNo": "2339825",

"provEnrolleeNo": "382475"

}

16. Follow the link - <https://github.com/zanaca/docker-dns> for Mac OS setup to access the service.

make install

make show-domain

make tunnel

17. For linux the Jenkins file should have this line “sudo mvn clean install dockerfile:build”. Follow this link <https://gist.github.com/hayderimran7/9246dd195f785cf4783d> to setup jenkins so that it doesn’t ask for a password.

Note: Docker image name should be in small letters. Docker does not support Capital letters.