Scenario 2:- CI/CD (Jenkins + Git hub + Maven + Docker container)

Server 1: - jenkins (Make sure to install Jenkins, Git, Maven)
Server 2: - tomcat (Make sure to install docker container)

Step 1: - Install Docker and create docker user on tomcat server.

```
#yum install -y yum-utils device-mapper-persistent-data lvm2
#yum-config-manager --add-repo https://download.docker.com/linux/centos/docker-ce.repo
#yum install docker-ce docker-ce-cli containerd.io -y
#systemctl start docker && systemctl enable docker && systemctl status docker

#useradd dockeradmin
#passwd dockeradmin
#usermod -G docker dockeradmin
#id dockeradmin
```

Step1.1:- if you are using cloud machine, then make sure to have sshd password authentication enabled.

```
#vim /etc/ssh/sshd_config
#cat /etc/ssh/sshd_config
```

Before: -

```
PasswordAuthentication no
```

After:-

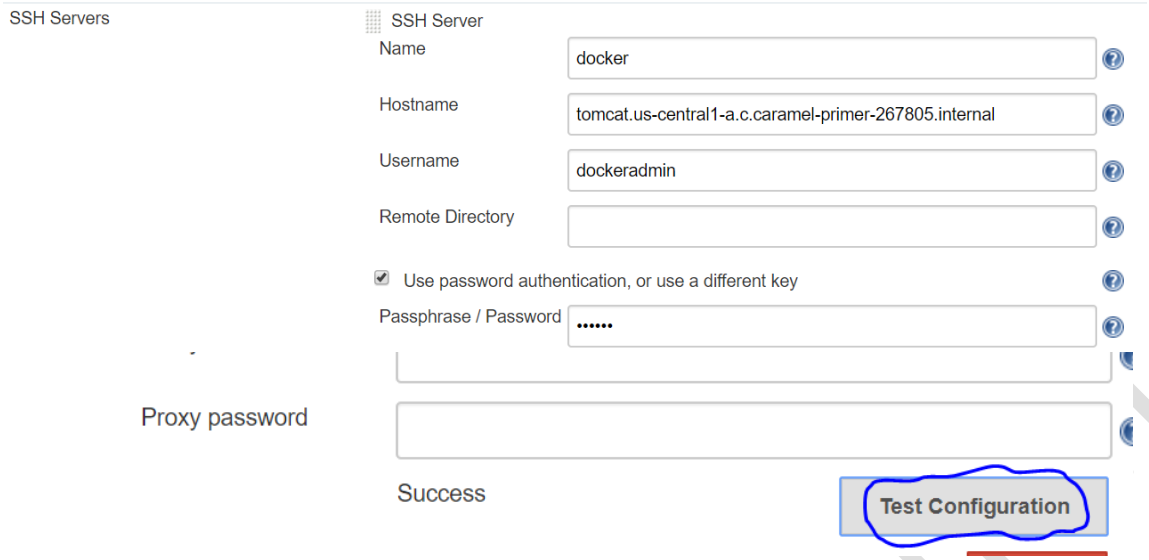
```
PasswordAuthentication yes

# systemctl restart sshd
```

Step1.2:-Create a DockerFile under/home/dockeradmin.

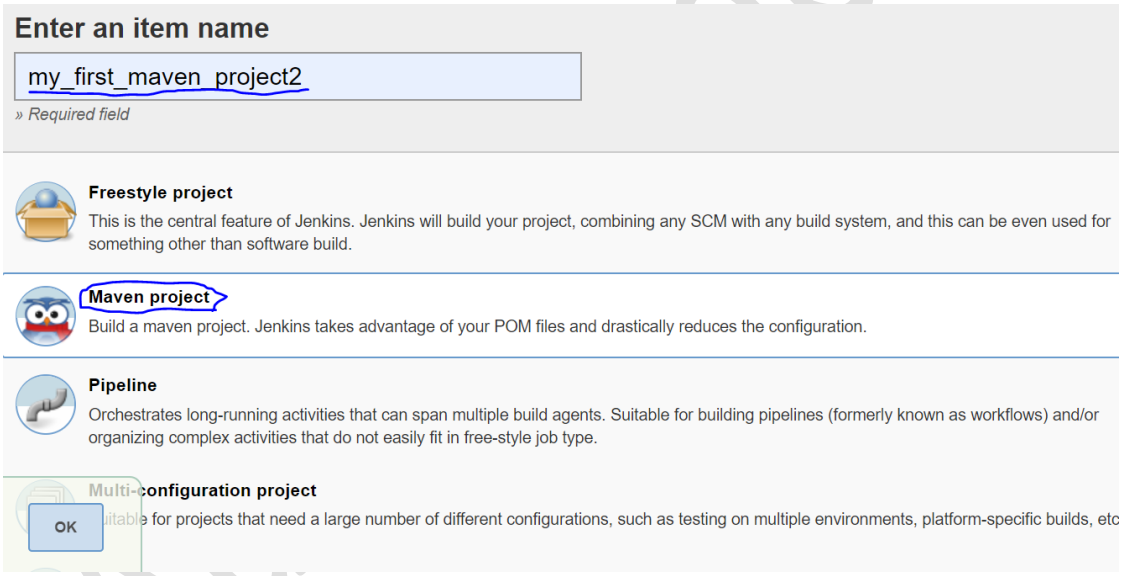
```
[dockeradmin@tomcat ~]$ cat Dockerfile
FROM tomcat:8-jre8
LABEL maintainer=Deepan
COPY ./webapp.war /usr/local/tomcat/webapps
[dockeradmin@tomcat ~]$
```

Step 2:- install ssh plugins on Jenkins and add the docker server details on configure system.

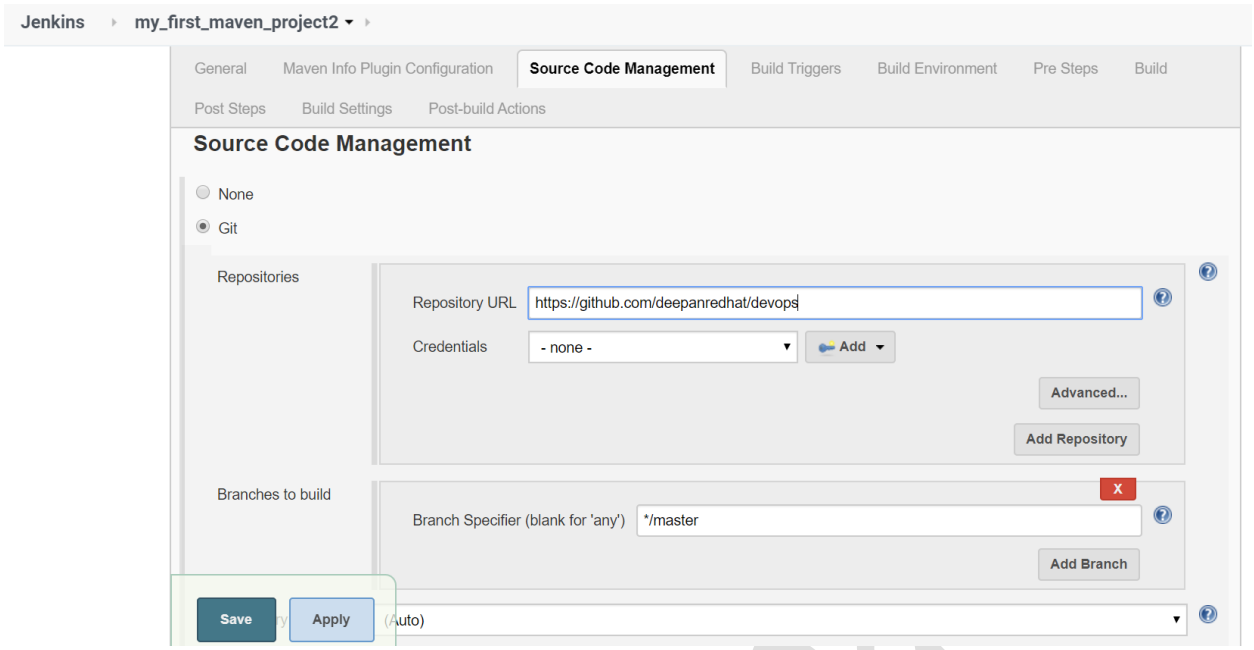
@Go to manage Jenkins → manage plugins → click on Available → search and select publish over ssh → click on install without restart.
@Go to manage Jenkins → configure system → drag down → select publish over ssh → add the docker server details → credentials → do click on Test Configuration.



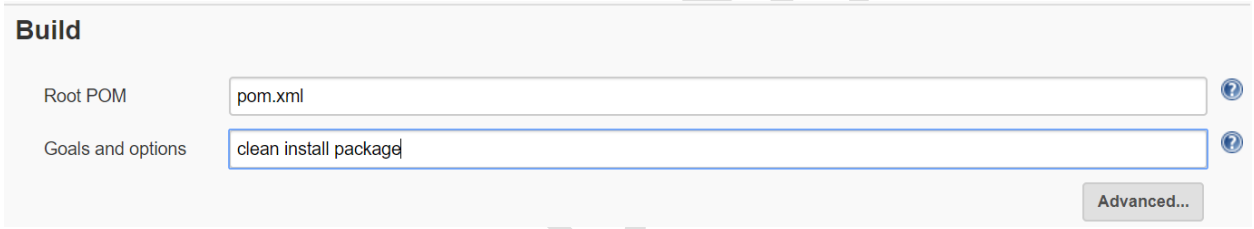
Step 3:- Now go to Jenkins console dashboard and create a new project.



@@add GIT repo on Source code Management@@
you can fork from this repo https://github.com/vsknalli/devops to your GIT hub ID.

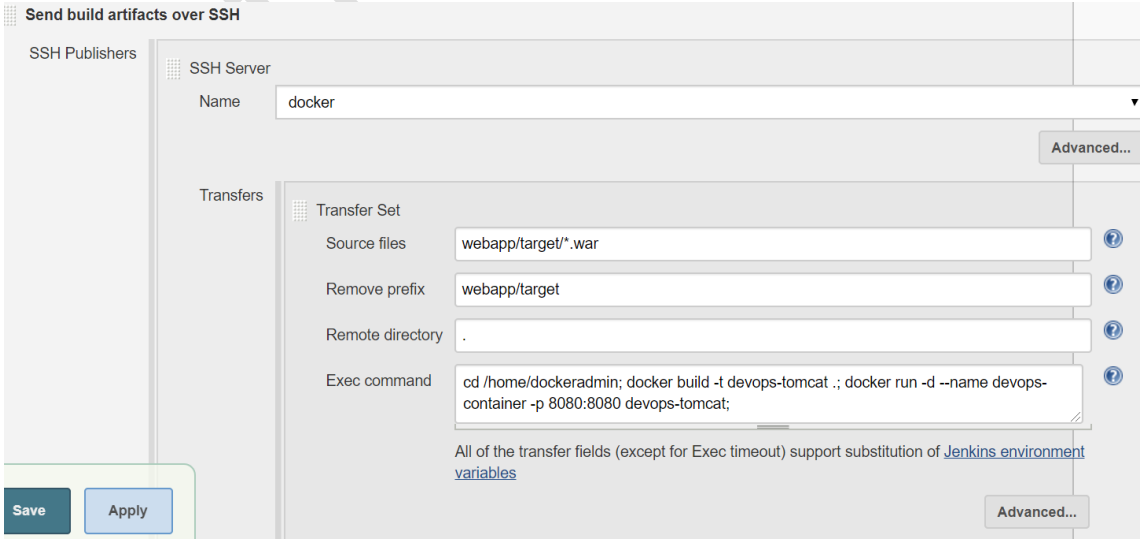


@enter below on build.



@click on Post-build Actions → select Send build artifacts over ssh →

:- enter below details.
cd /home/dockeradmin; docker build -t devops-tomcat .; docker run -d --name devops-container -p 8080:8080 devops-tomcat;



@Now click on build now → then select console output

```
Step 1/3 : FROM tomcat:8-jre8
 ---> 3639174793ba
Step 2/3 : LABEL maintainer=Deepan
 ---> Using cache
 ---> 52c867c8b90d
Step 3/3 : COPY ./webapp.war /usr/local/tomcat/webapps
 ---> 9b8637e38bcb
Successfully built 9b8637e38bcb
Successfully tagged devops-tomcat:latest
98478e6012fbccc59287fa538e6e17697cf87034a6b2b42c4572edb6486159c9
SSH: EXEC: completed after 1,601 ms
SSH: Disconnecting configuration [docker] ...
SSH: Transferred 1 file(s)
Finished: SUCCESS
```

@Now go to docker server and check the container status

```
[dockeradmin@tomcat ~]$ docker images
REPOSITORY          TAG                 IMAGE ID            CREATED             SIZE
devops-tomcat       latest              9b8637e38bcb        3 minutes ago       463MB
<none>              <none>              bd43bb6f96b3        6 minutes ago       463MB
tomcat              8-jre8              3639174793ba        10 months ago       463MB
[dockeradmin@tomcat ~]$ docker ps -a
CONTAINER ID        IMAGE               COMMAND             CREATED             STATUS              PORTS
      NAMES
98478e6012fb        devops-tomcat       "catalina.sh run"   3 minutes ago       Up 3 minutes        0.0.0.0:8080->8080/
tcp   devops-container
[dockeradmin@tomcat ~]$
```

@Now try to open tomcat url http://104.197.8.84:8080/webapp/