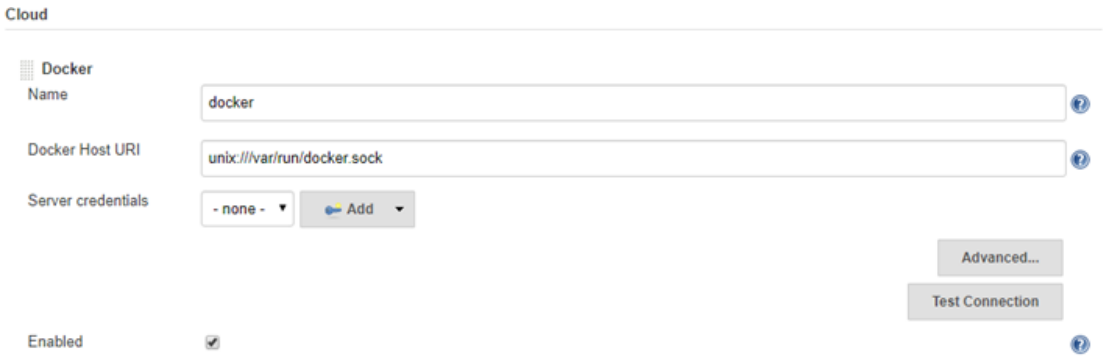
Phase-5 Practice Project: Assisted Practice

6. Setting up a Jenkins Pipeline.

Installing Docker plugin and configuring Docker cloud

- Add Docker cloud by accessing Manage Jenkins Configure system. Then, you have to add Docker cloud details as shown below:

Docker Host URI: unix:///var/run/docker.sock



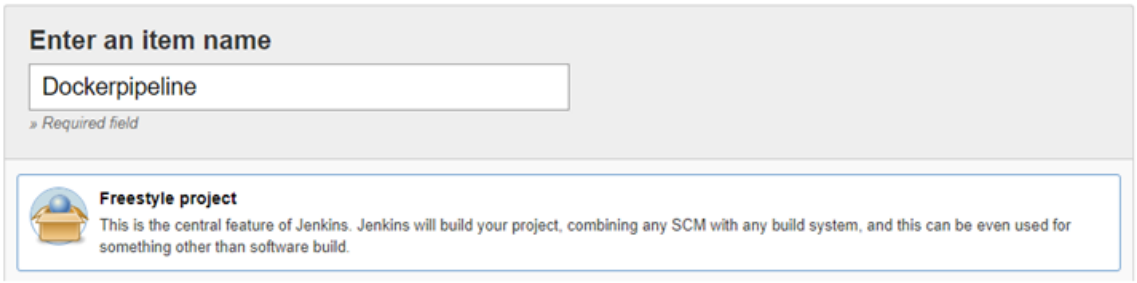
- Configure the Docker cloud to give complete access to docker.sock file so that Jenkins will be able to connect to Docker process

chmod 777 /var/run/docker.sock

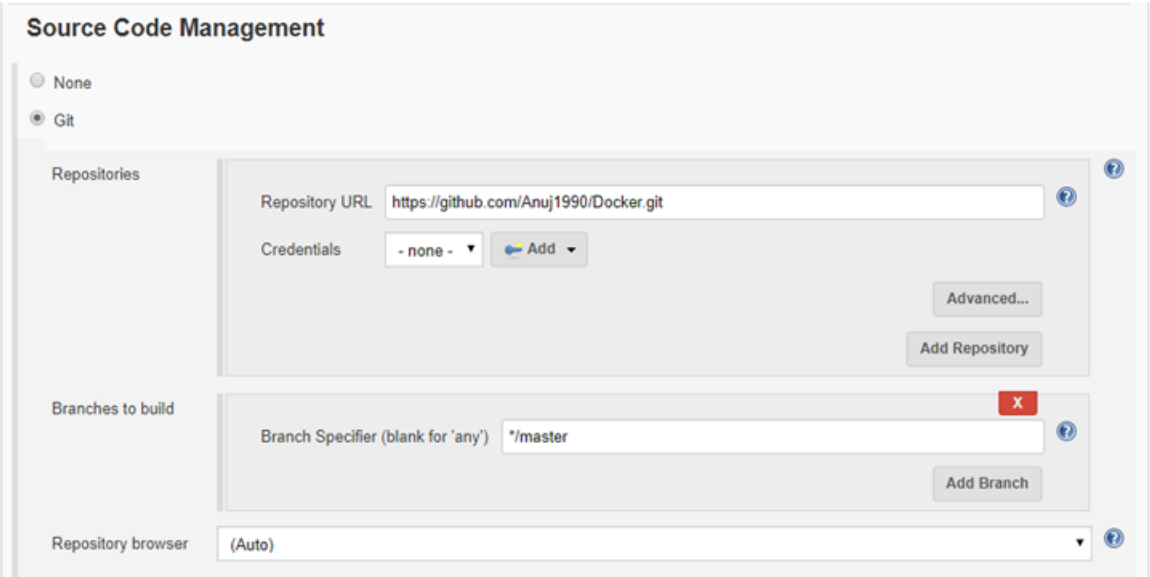
```
root@ip-172-31-17-73:/var/run# chmod 777 docker.sock
```

Configuring Jenkins job

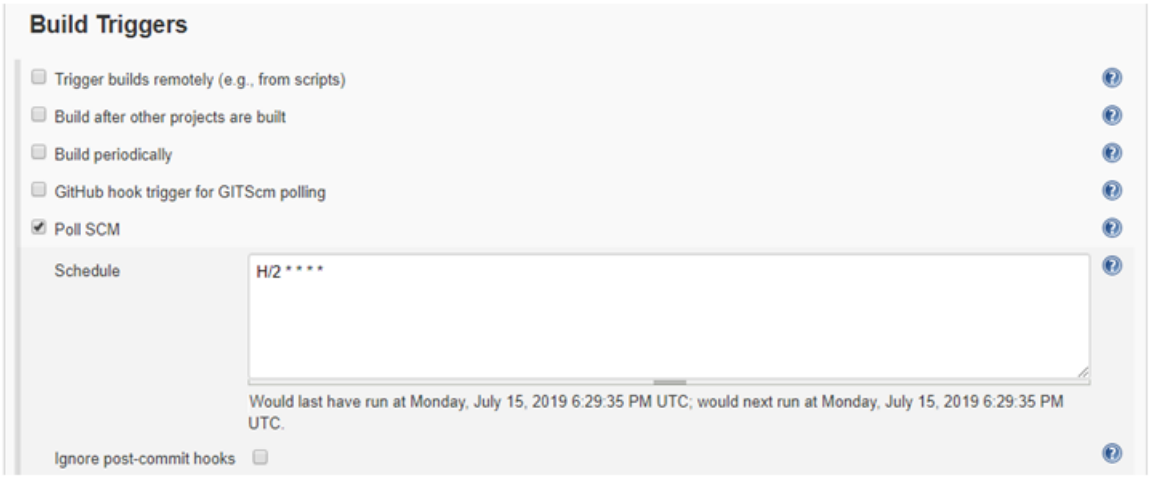
- Create a new Jenkins pipeline job for supporting CI/CD workflow



- Configure Git repository so that we can have Dockerfile to build Docker container and push it to Docker Hub



- Configure build triggers to enable Poll SCM feature so that once any push is detected



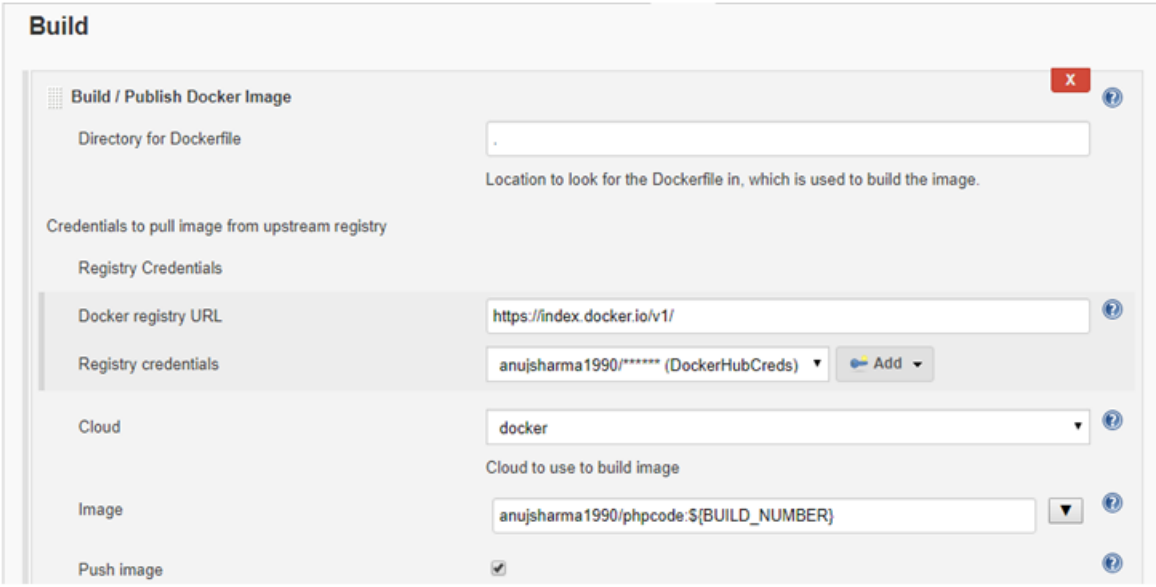
- Configure Docker build option to configure build configurations. Some of the configurations are mentioned below:

  Directory for Dockerfile . (Represents current location)

  Docker Registry URL
  https://index.docker.io/v1/

  Docker credentials Docker hub username password

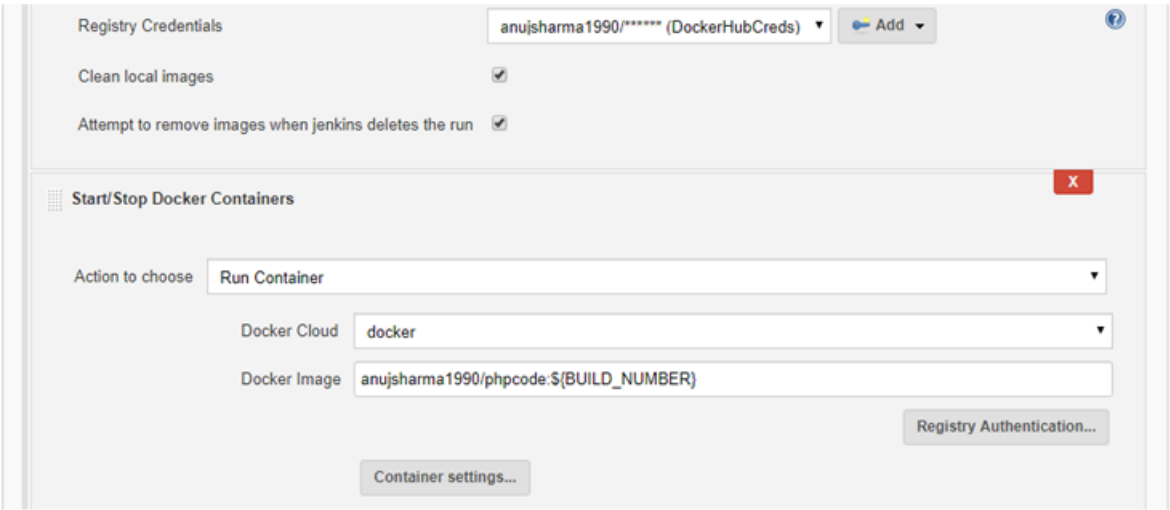
  Cloud Select Docker Cloud created in dropdown



- Follow the steps mentioned below to configure how Docker containers will be deployed

Docker cloud Select from dropdown Docker cloud details

Docker image anujsharma1990/phpcode:${BUILD_NUMBER}



- Once job configuration is done, save the configuration and proceed with triggering build in order to build custom container and deploy the container

```
Successfully built 57c0eeb63850

Tagging built image with anujsharma1990/phpcode:4
Docker Build Response : 57c0eeb63850
Pushing [anujsharma1990/phpcode:4]
The push refers to repository [docker.io/anujsharma1990/phpcode]
```

```
4: digest: sha256:4a9404ab7b26b05fdcd0aee10538a43667fc2b9d0834d7dffb4d330356afd106 size: 2408
Cleaning local images [57c0eeb63850]
Docker Build Done
Pulling image anujsharma1990/phpcode:4
4:Pulling from anujsharma1990/phpcode5b7339215d1d:Already exists14ca88e9f672:Already existsa31c3b1caad4:Already
existsb054a26005b7:Already existsd4db4c3dd692:Pulling fs layer42cbd6016189:Pulling fs layer58e44124d930:Pulling fs
layercb727fa74bc1:Pulling fs layer51e9e9911579:Pulling fs layeree860aead8f8:Pulling fs
layer51e9e9911579:Waitingee860aead8f8:Waitingcb727fa74bc1:Waiting58e44124d930:Verifying Checksum58e44124d930:Download
completecb727fa74bc1:Verifying Checksumcb727fa74bc1:Download complete51e9e9911579:Verifying Checksum51e9e9911579:Download
completed4db4c3dd692:Verifying Checksumd4db4c3dd692:Download completeee860aead8f8:Verifying Checksumee860aead8f8:Download
completed4db4c3dd692:Pull complete42cbd6016189:Verifying Checksum42cbd6016189:Download complete42cbd6016189:Pull
complete58e44124d930:Pull completecb727fa74bc1:Pull complete51e9e9911579:Pull completeee860aead8f8:Pull completenull:Digest:
sha256:4a9404ab7b26b05fdcd0aee10538a43667fc2b9d0834d7dffb4d330356afd106null:Status: Downloaded newer image for
anujsharma1990/phpcode:4Starting container for image anujsharma1990/phpcode:4
Started container aec3ed34f43c7d14e1166aed67b99e9f211aed2fe105b10ee5604c046522e8cc
Finished: SUCCESS
```

- Once the build is successful, validate the Docker container deployment on Docker host which will help us to implement complete CI/CD workflow for Docker container