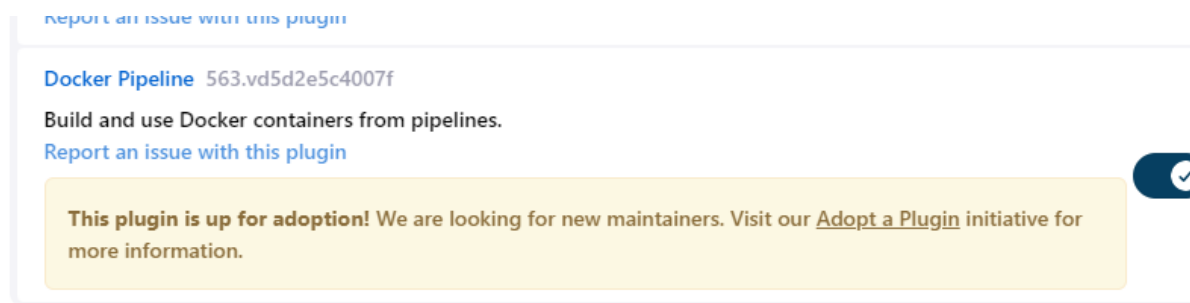


## **Build Jenkins Pipeline using docker and Kubernetes**

### Install Docker plugin



### On ubuntu server install docker

```
sudo apt install apt-transport-https ca-certificates curl software-properties-common
```

```
curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo  
gpg --dearmor -o /usr/share/keyrings/docker-archive-keyring.gpg
```

```
echo "deb [arch=$(dpkg --print-architecture) signed-  
by=/usr/share/keyrings/docker-archive-keyring.gpg]  
https://download.docker.com/linux/ubuntu $(lsb_release -cs)  
stable" | sudo tee /etc/apt/sources.list.d/docker.list > /dev/null
```

```
sudo apt install docker-ce
```

```
sudo systemctl status docker
```


### Change the permission for Jenkins user on ubuntu server

```
sudo usermod -a -G docker jenkins  
sudo chown jenkins:docker /var/run/docker.sock  
sudo chmod 660 /var/run/docker.sock
```

create a registry

```
docker run -d -p 5000:5000 --restart=always --name registry  
registry:2
```

dockerfile contents

 [amitopenwriteup · writing](#)

Code

Blame

6 lines (6 loc) · 138 Bytes

```
1    FROM python:3.9  
2    WORKDIR /app  
3    COPY requirements.txt requirements.txt  
4    RUN pip install -r requirements.txt  
5    COPY . .  
6    CMD ["python", "app.py"]
```

Jenkins file

```
1  pipeline {  
2      agent any  
3      stages {  
4          stage('Checkout Git repository') {  
5              steps {  
6                  git branch: 'master', url: ' https://github.com/amitopenwriteup/cicd.git'  
7              }  
8          }  
9          stage('Build Docker image') {  
10             steps {  
11                 script {  
12                     def dockerfile = 'dockerfile'  
13                     def registry = 'localhost:5000'  
14                     def imageName = 'myimage'  
15                     def imageTag = 'latest'  
16                     def dockerImage = docker.build("${registry}/${imageName}:${imageTag}", "-f ${dockerfile} .")  
17                     dockerImage.push()  
18                 }  
19             }  
20         }  
21     }  
}
```

Create a pipeline

And select option “pipeline with scm”

Provide this git link <https://github.com/amitopenwriteup/cicd.git>

Jenkins file name : **jenkinsfile**

The screenshot displays the Jenkins Pipeline Configuration interface. The 'Definition' section is set to 'Pipeline script from SCM'. Under the 'SCM' section, 'Git' is selected. The 'Repositories' section contains one entry with the 'Repository URL' set to 'https://github.com/amitopenwriteup/cicd.git' and 'Credentials' set to '- none -'. The 'Script Path' section is set to 'jenkinsfile'. The 'Lightweight checkout' checkbox is checked. A 'Pipeline Syntax' link is visible at the bottom.

Definition

Pipeline script from SCM

SCM ?

Git

Repositories ?

Repository URL ?

https://github.com/amitopenwriteup/cicd.git

Credentials ?

- none -

Add

Advanced

Script Path ?

jenkinsfile

☒ Lightweight checkout ?

[Pipeline Syntax](#)