Setting Up a CI Pipeline

Step1: -

1. Download CSS Template https://www.free-css.com/
2. Download **any template** if you want
3. After downloading template **save in the folder**

Step2:-

1. Open your **Git hub account**
2. Click on **create a new repository**
3. Upload a **css file which you downloaded to the git hub**
4. Click on **save the file**

Step3: -

1. Open the **aws console**
2. Login with **your credential**
3. Search for **EC2**
4. Click on **Launch Instance**
5. Enter the name of the instance is **CIJenkins**
6. Select the Operating system as **ubuntu**
7. Select the Instance Type as **t2.micro**
8. Create a new **key pair**
   Allow http traffic also
9. Key pair name as SSH-Key-jenkins
    1. RSA
    2. .pem
    3. Click on Create Key pair
10. Scroll down and click on **Launch instance**

Step 4:-

1. Connect the EC2 Instance with **EC2 Connect**
2. Click on **Connect**
3. You entered in to the **VM**
4. Update the Installation $ sudo apt update -y

Step 5:-

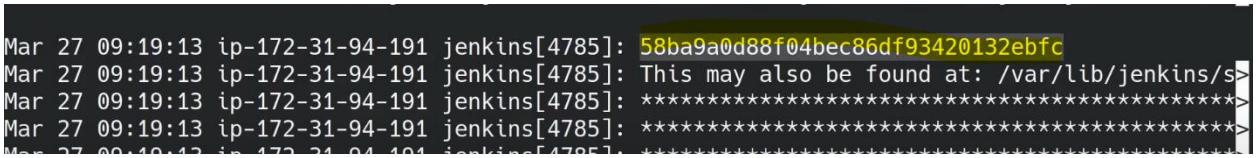
1. Search **jenkins.io**
2. Click on **Documentation**
3. Click on **Install Jenkins**
4. Click on **Linux OS**
5. Click on **Debian ubuntu**
6. Under the **Long Term Support release**
    i. Copy the **code snippet** and wait …
11. Go to **the EC2 vm**
12. Before Installing jenkins and install java jdk: $ sudo apt install openjdk-17-jre
    1. Click on **yes**
    2. **Jdk installed succesfully**
13. Now paste the **code snippet of Jenkins** which you copied earlier
14. Installed **Jenkins and dependencies succesfully**

Step 6:-

1. Go to **the EC2 Instance** and click on open
2. Click on **security tab**
3. Click on **edit inbound rules**
4. Click on **add rule**
5. Select the **custom TCP**
6. Enter the Port range as **8080**
7. Select the source as **Anywhere**
8. Click on **save rule**

Step 7:-

1. Go back to the **VM**
2. Check the Jenkins installed or not $ systemctl status jenkins
3. Jenkins running succesfully



4. Copy the Jenkins **IP secret credential paste** in the notepad

Step 8:-

1. Go to the **EC2**
2. Copy the **Public IP address**
3. Paste in the browser
    i. Ex: EC2 Public Ip 18.208.137.53:8080 →Jenkins default ip
4. Search in the browser

Step 9:-

1. Jenkins **web page will be opened**
2. Unlock jenkins by **adding the secret credential** which is copied earlier
3. Click on **Continue**
4. Under Getting started
    i. **Customize Jenkins**
        1. **Install suggested plugins**
        2. **Plugins are installing**
5. After the plugins are Installed
6. Enter the **Admin user** details
    a. Enter the user details
7. Click on **Save and continue**
8. Finally click on **Save and Finish**
9. Jenkins is ready
10. Now start using jenkins

Step 10:- Create a pipeline in the jenkins

1. Open the **jenkins web page**
2. Click on **New Item**
3. Provide the name as **Automated-pipeline**
4. Select the **Freestyle Project**
5. Click on OK

6. Scroll **down the configuration**
7. You will see **source code management**
8. Select the **Git**
9. Copy the **Github source URL**
10. Go to the **Git-Hub account**
11. Select the **project** and **copy the code URL**
12. Paste the **URL in the repository URL**
13. Enter the branch name as **main**
14. Click on **save**

Step 11:

1. Go to the **configure again**
2. Scroll **down**
3. Under **Build Trigger**
4. Select the **GitHub hook trigger** for GITScm polling
5. Click on **save**

Step 12:

1. Go to the **Github repository**
2. Click on **Settings**
3. Click on **webhook in the navigation bar**
4. Delete the **existing webhook**
5. Click on **Add Webhooks**
6. Copy the **jenkins URL** from the jenkins web page
7. Paste the URL add this at the end /github-webhook/
8. Scroll down and **which events would you like to trigger** this webhook
9. Select **let me select individual events**
    i. Allow the **pull request and push request**
10. Scroll down and **click on Add webhook**

Step 13:-

1. Go to the **jenkins**
2. Click on **Build now** in the navigation bar
3. See the status is **success**

4. Check the **console output**
   Note:-Read each information in the output

Step 14:-

1. Go to the **git hub project**
2. Click on **add file**
3. Click on **create a file**
4. Provide name as **Test.txt**
5. Enter the description as **This is a test to verify the github webhook**
6. Click on **commit new file**

Step 15:-

1. Go to the **jenkins**
2. **Refresh the page**
3. **NOTE:-Before clicking build now your pipeline generated updated document within a fraction of seconds**
4. Click on **build now**
5. You will see a **new file is visible is jenkins**

Congratulation you succesfully configured and setup CI/CD Pipelines in the Jenkins