

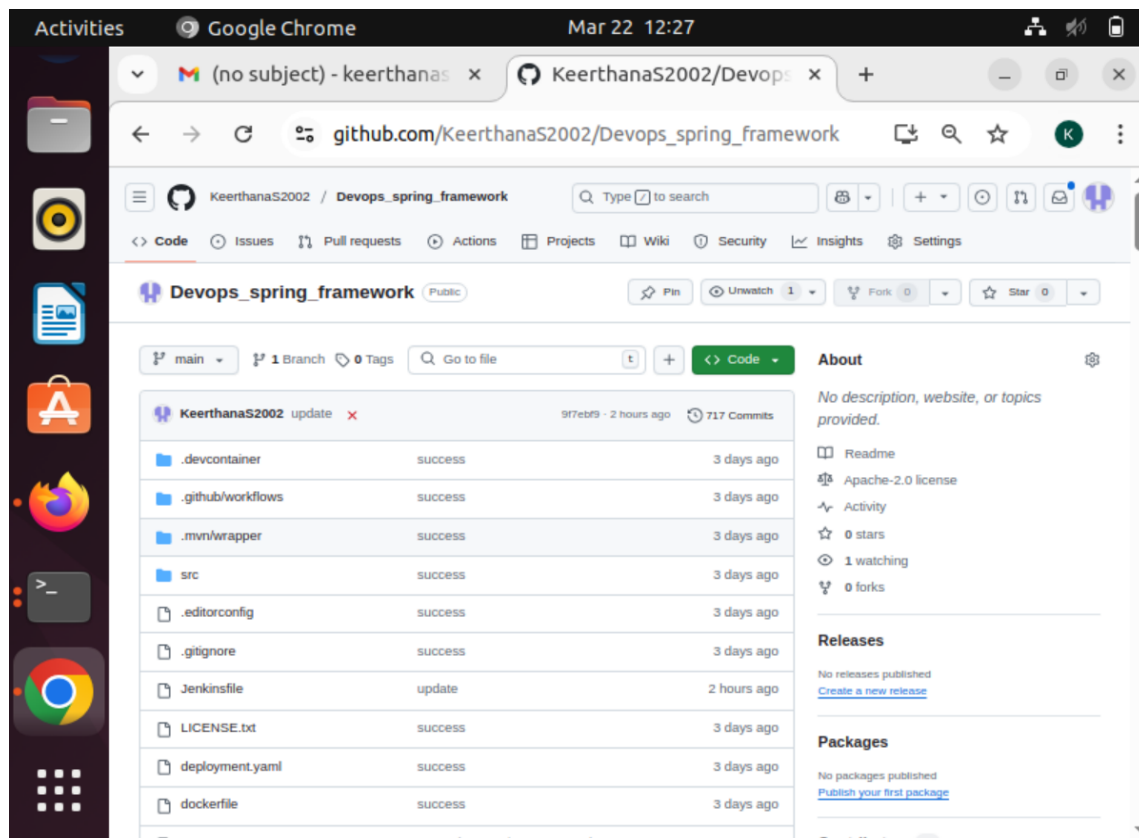
DEVOPS TASK 5

Step 1: Clone the repository in ubuntu using the url : <https://github.com/Jervinjeno/spring-framework.git> using the following commands:

- ❖ **git --version**
- ❖ **git clone https://github.com/Jervinjeno/spring-framework.git**
- ❖ **sudo chown -R \$USER:\$USER spring-framework**
- ❖ **sudo chmod -R 755 spring-framework**

Step 2: Create a new public repository named as Devops_spring_framework and push this cloned repository into our newly created repository using the below commands:

- ❖ **cd spring-framework**
- ❖ **git remote set-url origin https://github.com/KeerthanaS2002/Devops_spring_framework.git**
- ❖ **git push -u origin main**



Step 3: In a new ubuntu terminal , start jenkins using the following 3 commands:

- ❖ **sudo systemctl enable jenkins**
- ❖ **sudo systemctl start jenkins**
- ❖ **sudo systemctl status jenkins**

```

root@ubuntu1:/home/vboxuser# sudo systemctl enable jenkins
Synchronizing state of jenkins.service with SysV service script with /lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable jenkins
root@ubuntu1:/home/vboxuser# sudo systemctl status jenkins
● jenkins.service - Jenkins Continuous Integration Server
   Loaded: loaded (/lib/systemd/system/jenkins.service; enabled; vendor preset: enabled)
   Active: active (running) since Sat 2025-03-22 09:36:39 IST; 52s ago
     Main PID: 5926 (java)
    Tasks: 52 (limit: 4623)
   Memory: 405.2M
      CPU: 42.684s
   CGroup: /system.slice/jenkins.service
           └─5926 /usr/bin/java -Djava.awt.headless=true -jar /usr/share/java/

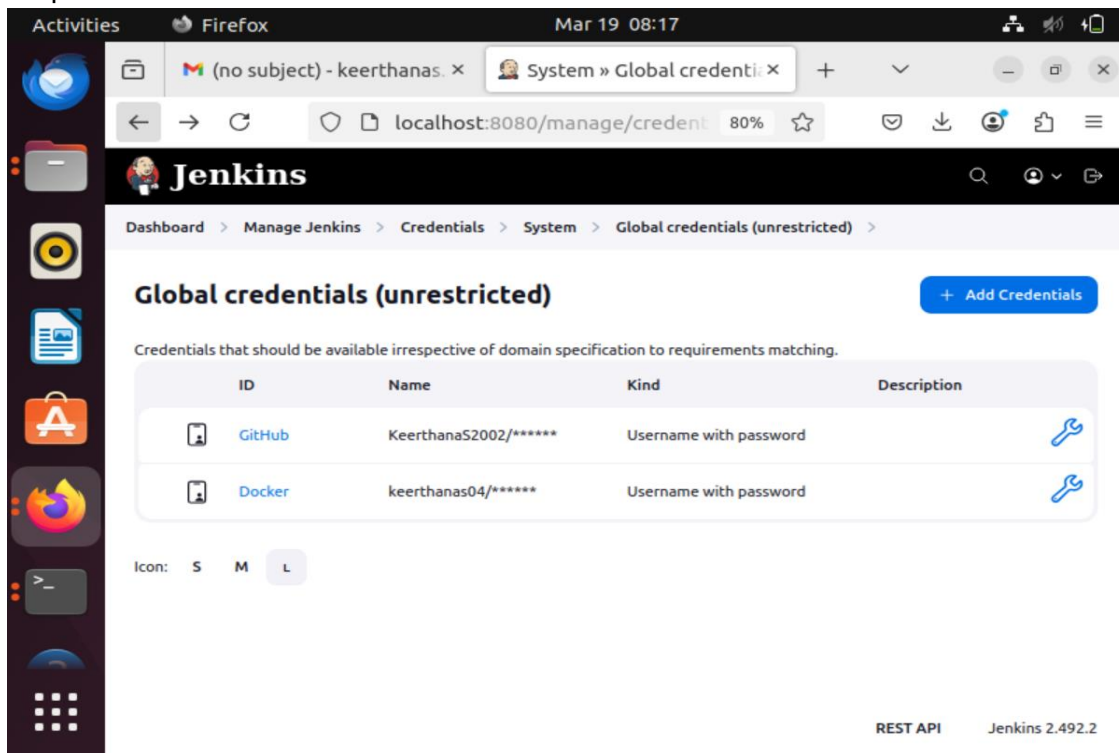
Mar 22 09:36:50 ubuntu1 java[5926]: 2025-03-22 04:06:50.687+0000 [id=32]
Mar 22 09:36:50 ubuntu1 java[5926]: 2025-03-22 04:06:50.725+0000 [id=31]
Mar 22 09:36:50 ubuntu1 java[5926]: 2025-03-22 04:06:50.727+0000 [id=35]
Mar 22 09:36:51 ubuntu1 java[5926]: 2025-03-22 04:06:51.318+0000 [id=37]
Mar 22 09:36:52 ubuntu1 java[5926]: 2025-03-22 04:06:52.896+0000 [id=31]
Mar 22 09:36:52 ubuntu1 java[5926]: 2025-03-22 04:06:52.900+0000 [id=35]
Mar 22 09:36:53 ubuntu1 java[5926]: 2025-03-22 04:06:53.508+0000 [id=30]
Mar 22 09:36:53 ubuntu1 java[5926]: 2025-03-22 04:06:53.551+0000 [id=30]
Mar 22 09:36:53 ubuntu1 java[5926]: 2025-03-22 04:06:53.628+0000 [id=30]
Mar 22 09:36:53 ubuntu1 java[5926]: 2025-03-22 04:06:53.704+0000 [id=24]

```

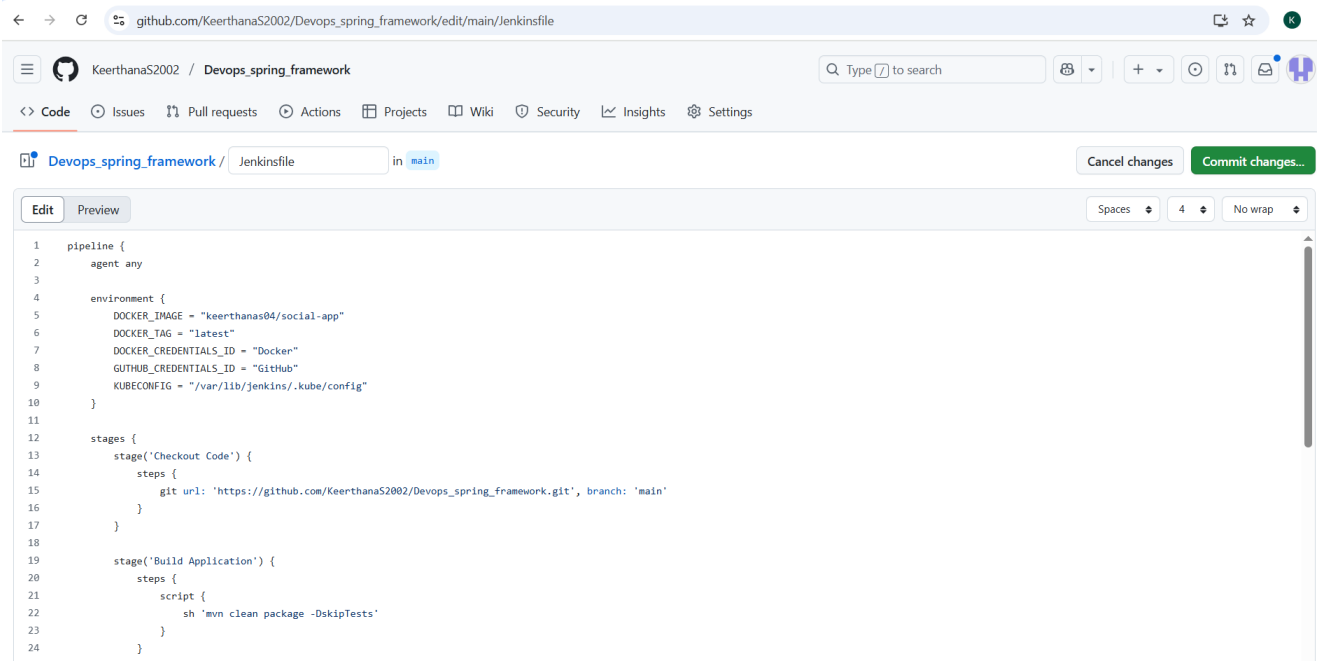
Step 4: In chrome type **localhost:8080** and enter. Then give the username and password to login into jenkins.

Step 5: Go to Manage Jenkins and choose **Credentials** from Security.

Step 6: Add new credentials for GitHub & Docker.



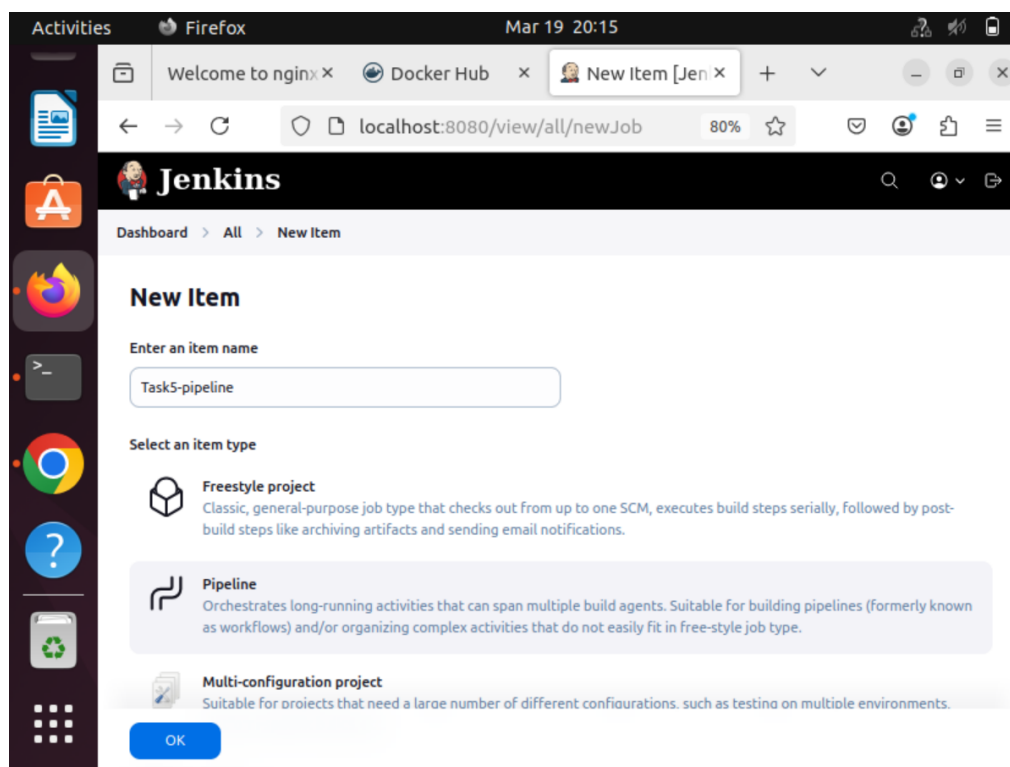
Step 7: Modify the Jenkinsfile with your own credentials.



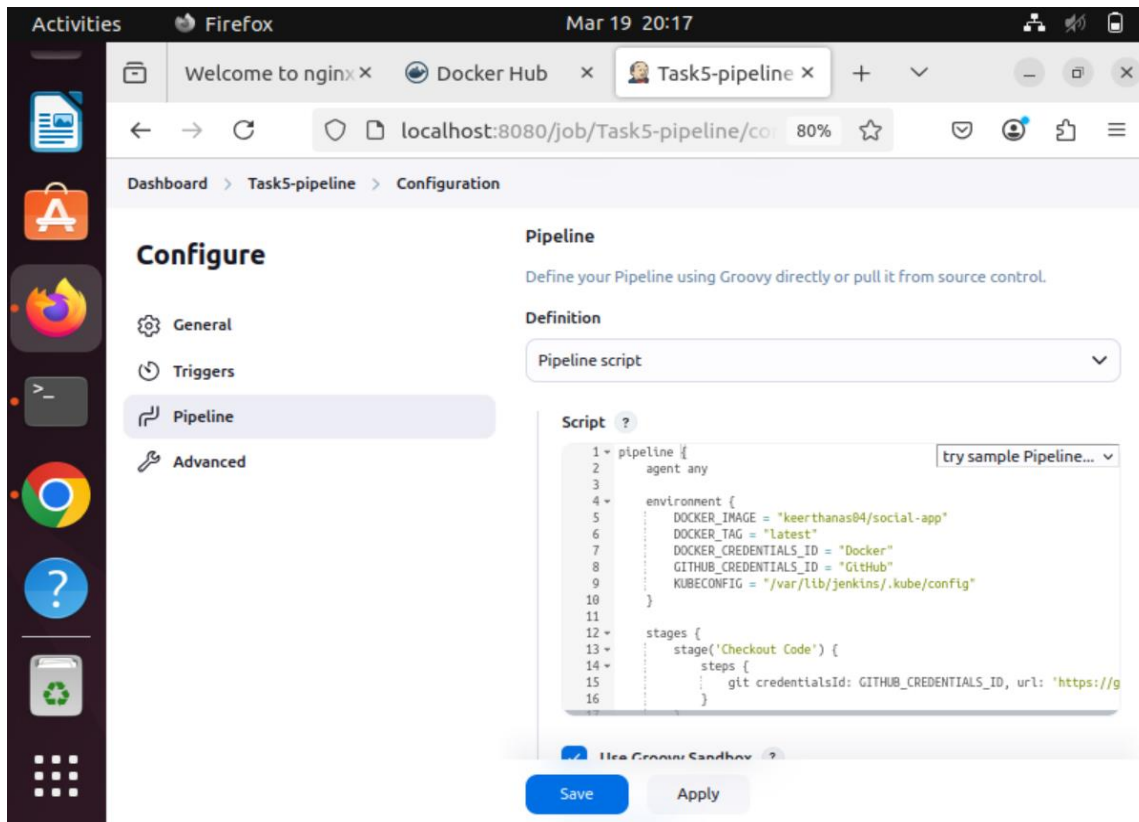
The screenshot shows a GitHub repository page for 'KeerthanaS2002 / Devops_spring_framework'. The 'Jenkinsfile' is selected in the file browser. The code is displayed in a text editor with a line number margin on the left. The Jenkinsfile content is as follows:

```
1 pipeline {
2   agent any
3
4   environment {
5     DOCKER_IMAGE = "keerthanas04/social-app"
6     DOCKER_TAG = "latest"
7     DOCKER_CREDENTIALS_ID = "Docker"
8     GITHUB_CREDENTIALS_ID = "GitHub"
9     KUBECONFIG = "/var/lib/jenkins/.kube/config"
10  }
11
12  stages {
13    stage('Checkout Code') {
14      steps {
15        git url: 'https://github.com/KeerthanaS2002/Devops_spring_framework.git', branch: 'main'
16      }
17    }
18
19    stage('Build Application') {
20      steps {
21        script {
22          sh 'mvn clean package -DskipTests'
23        }
24      }
25    }
26  }
```

Step 8: Create a new item named Task5-pipeline, select pipeline and click ok.

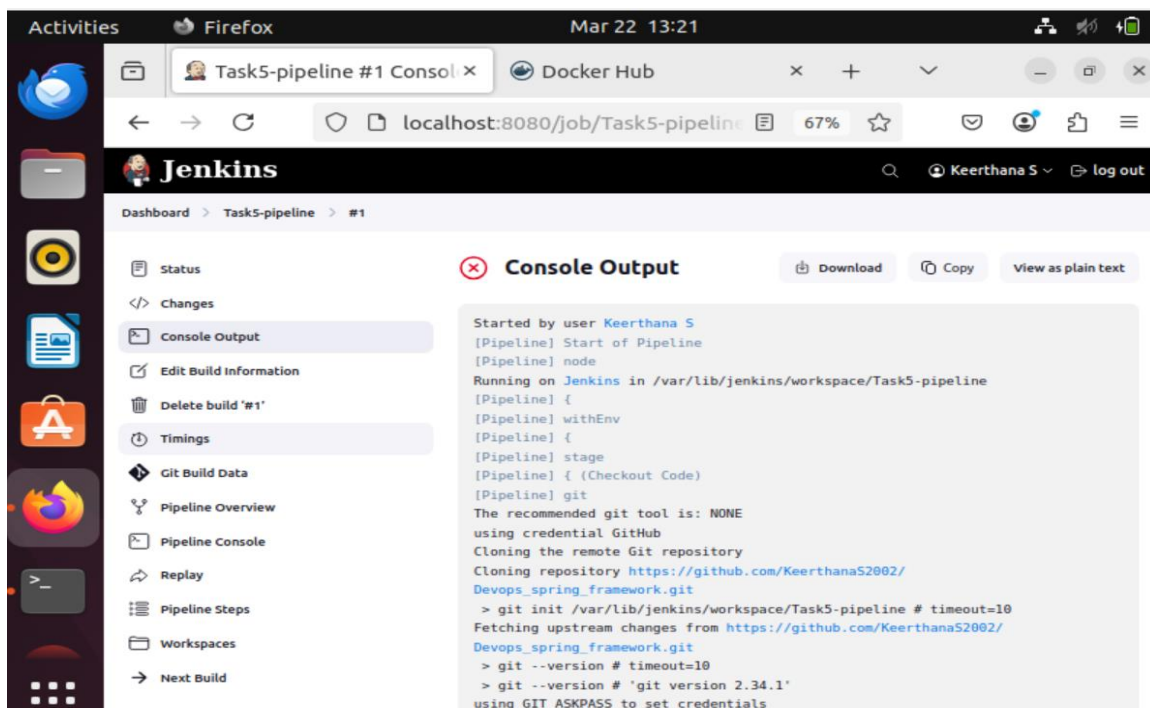


Step 9: Go to **Configure** in Task5-pipeline item, and paste the edited jenkins file in the script with proper indentation.



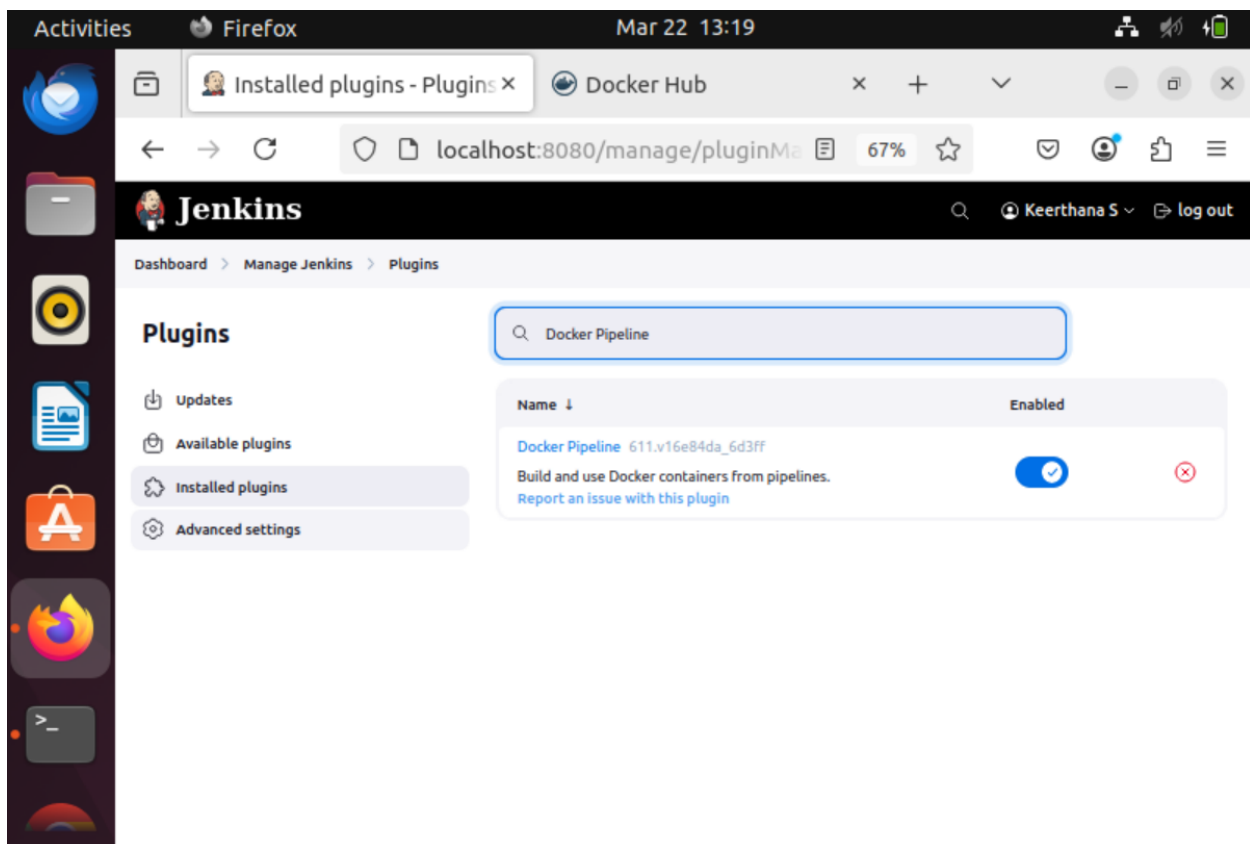
Step 10: Click on Apply and Save. Give Build now

Step 11: This gives an error message and we need to install maven to overcome this error



Step 12: Install maven and other necessary plugins in jenkins, give correct docker hub password and build again.

```
root@ubuntu1:/home/vboxuser# sudo apt install maven -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following NEW packages will be installed:
  maven
0 upgraded, 1 newly installed, 0 to remove and 10 not upgraded.
Need to get 17.8 kB of archives.
After this operation, 129 kB of additional disk space will be used.
Get:1 http://in.archive.ubuntu.com/ubuntu jammy/universe amd64 maven all 3.6.3-5 [17.8 kB]
Fetched 17.8 kB in 1s (15.4 kB/s)
Selecting previously unselected package maven.
(Reading database ... 169134 files and directories currently installed.)
Preparing to unpack .../archives/maven_3.6.3-5_all.deb ...
Unpacking maven (3.6.3-5) ...
Setting up maven (3.6.3-5) ...
update-alternatives: using /usr/share/maven/bin/mvn to provide /usr/bin/mvn (mvn) in auto mode
root@ubuntu1:/home/vboxuser# mvn -version
Apache Maven 3.6.3
Maven home: /usr/share/maven
Java version: 17.0.14, vendor: Ubuntu, runtime: /usr/lib/jvm/java-17-openjdk-amd64
Default locale: en_IN, platform encoding: UTF-8
OS name: "linux", version: "5.15.0-43-generic", arch: "amd64", family: "unix"
root@ubuntu1:/home/vboxuser# which mvn
/usr/bin/mvn
```



Activities Firefox Mar 22 12:14

Task5-pipeline [Jenkins] x Docker Hub

localhost:8080/job/Task5-pipeline/ 67%

Jenkins

Dashboard > Task5-pipeline >

Task5-pipeline

Permalinks

- Last build (#11), 2 hr 7 min ago
- Last stable build (#11), 2 hr 7 min ago
- Last successful build (#11), 2 hr 7 min ago
- Last failed build (#10), 2 hr 35 min ago
- Last unsuccessful build (#10), 2 hr 35 min ago
- Last completed build (#11), 2 hr 7 min ago

Builds

Build	Status	Time
#11	Success	10:06 AM
#10	Failure	9:38 AM
#9	Success	9:09 AM
#8	Success	8:40 AM

Activities Firefox Mar 22 10:13

Task5-pipeline #11 Console x Docker Hub

localhost:8080/job/Task5-pipeline/11 67%

Jenkins

Dashboard > Task5-pipeline > #11

Console Output

Started by user Keerthana S

```
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins in /var/lib/jenkins/workspace/Task5-pipeline
[Pipeline] {
[Pipeline] withEnv
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Checkout Code)
[Pipeline] git
The recommended git tool is: NONE
No credentials specified
> git rev-parse --resolve-git-dir /var/lib/jenkins/workspace/Task5-
pipeline/.git # timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url https://github.com/KeerthanaS2002/
Devops_spring_framework.git # timeout=10
Fetching upstream changes from https://github.com/KeerthanaS2002/
Devops_spring_framework.git
> git --version # timeout=10
> git --version # 'git version 2.34.1'
> git fetch --tags --force --progress -- https://github.com/KeerthanaS2002/
Devops_spring_framework.git +refs/heads/*:refs/remotes/origin/* # timeout=10
```

Activities Firefox Mar 22 10:14

Task5-pipeline #11 Consc Docker Hub

localhost:8080/job/Task5-pipeline/11 67%

Dashboard > Task5-pipeline > #11

```
p1_0.id,p1_0.birth_date,p1_0.name,o1_0.id,o1_0.address,o1_0.city,o1_0.first_nam
e,o1_0.last_name,o1_0.telephone,t1_0.id,t1_0.name,v1_0.pet_id,v1_0.id,v1_0.visi
t_date,v1_0.description from pets p1_0 left join owners o1_0 on
o1_0.id=p1_0.owner_id left join types t1_0 on t1_0.id=p1_0.type_id left join
visits v1_0 on p1_0.id=v1_0.pet_id where p1_0.id=?
Hibernate: select pt1_0.id,pt1_0.name from types pt1_0 order by pt1_0.name
Hibernate: select
p1_0.id,p1_0.birth_date,p1_0.name,o1_0.id,o1_0.address,o1_0.city,o1_0.first_nam
e,o1_0.last_name,o1_0.telephone,t1_0.id,t1_0.name,v1_0.pet_id,v1_0.id,v1_0.visi
t_date,v1_0.description from pets p1_0 left join owners o1_0 on
o1_0.id=p1_0.owner_id left join types t1_0 on t1_0.id=p1_0.type_id left join
visits v1_0 on p1_0.id=v1_0.pet_id where p1_0.id=?
[INFO] Tests run: 11, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 4.069 s
-- in
org.springframework.samples.petclinic.service.ClinicServiceSpringDataJpaTests
[INFO] Running
org.springframework.samples.petclinic.service.ClinicServiceJdbcTests
[INFO] Tests run: 11, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.754 s
-- in org.springframework.samples.petclinic.service.ClinicServiceJdbcTests
INFO LocalContainerEntityManagerFactoryBean - Closing JPA EntityManagerFactory
for persistence unit 'petclinic'
[INFO]
[INFO] Results:
[INFO]
[INFO] Tests run: 62, Failures: 0, Errors: 0, Skipped: 0
[INFO]
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
```

Activities Firefox Mar 22 10:15

Task5-pipeline #11 Consc Docker Hub

localhost:8080/job/Task5-pipeline/11 67%

Dashboard > Task5-pipeline > #11

```
49cb1bc2daeb: Mounted from library/tomcat
4e5b554b7345: Mounted from library/tomcat
6fbd02a6a33: Mounted from library/tomcat
5f70bf18a086: Mounted from library/tomcat
39cf0ac89a5a: Mounted from library/tomcat
f844dcf94898: Mounted from library/tomcat
3359bc3d7a6a: Mounted from library/tomcat
4b7c01ed0534: Mounted from library/tomcat
61cb5a284d29: Pushed
latest: digest:
sha256:2564101cf18ded76562d6e80b297c4e24e59739875bfb825f6f9b064c00a2a95 size:
2413
[Pipeline] }
[Pipeline] // script
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Declarative: Post Actions)
[Pipeline] echo
Pipeline executed successfully!
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS
```