

UE23CS351B : Cloud Computing

LAB - 06

DATE: 26/02/2026

NAME:BHAVANI

SRN:PES2UG23CS125

SEC:B

Task 1:

SS1)

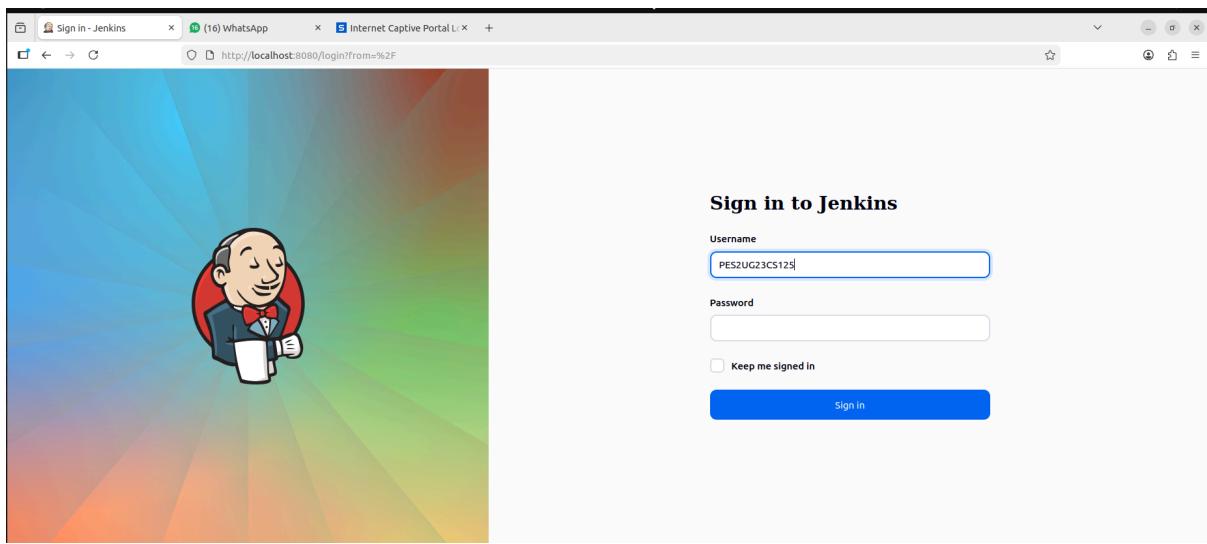
```
pes2ug23cs125@pes2ug23cs125: $ docker pull jenkins/jenkins:lts
lts: Pulling from jenkins/jenkins
a23f11f2c920: Pull complete
9d7440ab2b65: Pull complete
7eb0b3c920e0: Pull complete
53c8ff1dfefb7: Pull complete
24446a3c816: Pull complete
1354b1aa1de9: Pull complete
f03b11f2c92c: Pull complete
0c5135881854: Pull complete
0c9c0a650010: Pull complete
5081e84d3308: Pull complete
f703dc66a915: Pull complete
9b156237551b: Download complete
Digest: sha256:23b84d1060db6e9f2c17288c83ac071127092d720f14b3b8044d808468619c7
Status: Image is up to date for Jenkins/jenkins:lts
docker.io/jenkins/jenkins:lts
pes2ug23cs125@pes2ug23cs125: $ docker run -d \
--name jenkins \
-p 8080:8080 \
-p 50000:50000 \
-v Jenkins_home:/var/jenkins_home \
-v /var/run/docker.sock:/var/run/docker.sock \
--user root
jenkins/jenkins:lts
9340dcbb98e84a99b2f4342cab210c8554ed1786a2a942e980ec388fbe0b3e1
pes2ug23cs125@pes2ug23cs125: $ docker ps
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES
9340dcbb98e84a99b2f4342cab210c8554ed1786a2a942e980ec388fbe0b3e1_jenkins
fa999e7098481a8059d9c5ab032f
pes2ug23cs125@pes2ug23cs125: $ docker exec jenkins cat /var/jenkins_home/secrets/initialAdminPassword
fa999e7098481a8059d9c5ab032f
pes2ug23cs125@pes2ug23cs125: $
```

Getting Started

Getting Started

✓ Folders	✓ OWASP Markup Formatter	✓ Build Timeout	✓ Credentials Binding	** commons-lang3 v3.x Jenkins API ** Ionicons API Folders OWASP Markup Formatter ** ASM API ** JSON Path API ** Structs ** Pipeline: Step API ** commons-text API ** Token Macro
✓ Timestamper	⌚ Workspace Cleanup	⌚ Ant	⌚ Gradle	Build Timeout ** bouncycastle API ** Credentials ** Plain Credentials ** Variant ** SSH Credentials
⌚ Pipeline	⌚ GitHub Branch Source	⌚ Pipeline: GitHub Groovy Libraries	⌚ Pipeline Graph View	Credentials Binding ** SCM API ** Pipeline: API Timestamper ** Caffeine API ** Script Security ** JavaBeans Activation Framework (JAF) API
⌚ Git	⌚ SSH Build Agents	⌚ Matrix Authorization Strategy	⌚ LDAP	
⌚ Email Extension	⌚ Mailer	⌚ Dark Theme		** - required dependency

Jenkins 2.541.2



SS2)

Welcome to Jenkins!

This page is where your Jenkins jobs will be displayed. To get started, you can set up distributed builds or start building a software project.

Start building your software project

Create a job +

Set up a distributed build

Set up an agent

Configure a cloud

Learn more about distributed builds ?

Task 2:
SS3)

Status #7 (Feb 26, 2026, 10:25:53 AM)

Started by user PES2UG23CS125

Started 3 min 44 sec ago
Took 2 min 44 sec

Changes

Console Output

Edit Build Information

Delete build '#7'

Timings

Git Build Data

Previous Build

git Revision: af800bb52f9eb6b1e65190f2901fd336a7b166
Repository: https://github.com/Bhavanibakkappa/CC_Lab-6.git

</> No changes.

Jenkins / PES2UG23CS125-backend... / #7

Console

Started by user PES2UG23CS125
Running as SYSTEM
Building in workspace /var/jenkins_home/workspace/PES2UG23CS125-backend-build
The recommended git tool is: NONE
No credentials specified
> git rev-parse --resolve-git-dir /var/jenkins_home/workspace/PES2UG23CS125-backend-build/.git # timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url https://github.com/Bhavanibakkappa/CC_Lab-6.git # timeout=10
Fetching upstream changes from https://github.com/Bhavanibakkappa/CC_Lab-6.git
> git --version # timeout=10
> git fetch -tags --force --progress - https://github.com/Bhavanibakkappa/CC_Lab-6.git +refs/heads/*:refs/remotes/origin/* # timeout=10
> git rev-parse refs/remotes/origin/main^(commit) # timeout=10
Checking out Revision af800bb52fc96beb61e65196f2901fd336a7b166 (refs/remotes/origin/main)
> git config core.sparsecheckout # timeout=10
> git checkout -f af800bb52fc96beb61e65196f2901fd336a7b166 # timeout=10
Commit message: "Initial Jenkins lab setup"
> git rev-list --no-walk af800bb52fc96beb61e65196f2901fd336a7b166 # timeout=10
[PES2UG23CS125-backend-build] \$ /bin/sh -xe /tmp/jenkins3481517135096741139.sh
+ docker build -t backend-app backend
#0 building with "default" instance using docker driver

#1 [internal] load build definition from Dockerfile
#1 transferring dockerfile: 185B 0.0s done
#1 DONE 0.0s

Jenkins / PES2UG23CS125-backend... / #7

```
#7 [3/5] WORKDIR /app
#7 DONE 0.3s

#8 [4/5] COPY app.cpp .
#8 DONE 0.1s

#9 [5/5] RUN g++ app.cpp -o app
#9 DONE 3.4s

#10 exporting to image
#10 exporting layers
#10 exporting layers 46.6s done
#10 exporting manifest sha256:424464b1a6c456290d8f140282d6334f58375d1ee8a8307cda73cbf387cd14a8a
#10 exporting manifest sha256:424464b1a6c456290d8f140282d6334f58375d1ee8a8307cda73cbf387cd14a8a 0.0s done
#10 exporting config sha256:7133bbb03f92f3ad3a12a0bf1ff8fb2b52f502d2b3d03bb4795677c019d2315f46d16abafc 0.0s done
#10 exporting attestation manifest sha256:5b75146557c4a1f097c2bf5f02d2b3d03bb4795677c019d2315f46d16abafc 0.0s done
#10 exporting manifest list sha256:9f37b0a8a484db6b1b3b2bea3d12b91fed02e72cce267f378bd68ea86f28a 0.0s done
#10 exporting manifest list sha256:9f37b0a8a484db6b1b3b2bea3d12b91fed02e72cce267f378bd68ea86f28a 0.0s done
#10 naming to docker.io/library/backend-app:latest 0.0s done
#10 unpacking to docker.io/library/backend-app:latest
#10 unpacking to docker.io/library/backend-app:latest 17.8s done
#10 DONE 64.7s
Finished: SUCCESS
```

Jenkins 2.541.2

```
pes2ug23cs125@pes2ug23cs125:~/CC_Lab-6$ docker images
IMAGE           ID          DISK USAGE   CONTENT SIZE   EXTRA
backend-app:latest  9f37b0a8a484        557MB      166MB
jenkins-docker:latest  a7c35368a468        1.83GB      560MB   U
ubuntu:22.04       3ba65aa20f86        119MB      31.5MB
pes2ug23cs125@pes2ug23cs125:~/CC_Lab-6$
```

Jenkins / PES2UG23CS125-backend... / #7

PES2UG23CS125-backend-build

Permalinks

- Last build (#7), 9 min 58 sec ago
- Last stable build (#7), 9 min 58 sec ago
- Last successful build (#7), 9 min 58 sec ago
- Last failed build (#6), 18 min ago
- Last unsuccessful build (#6), 18 min ago
- Last completed build (#7), 9 min 58 sec ago

Builds >

Build #	Timestamp
③ #7	10:25 AM
② #6	10:17 AM
⑤ #5	10:17 AM
④ #4	10:15 AM
③ #3	9:53 AM
② #2	9:49 AM

SS4)

```
pes2ug23cs125@pes2ug23cs125:~/CC_Lab-6$ docker images
IMAGE           ID          DISK USAGE   CONTENT SIZE  EXTRA
backend-app:latest  9f37b0a8a484    557MB        166MB      U
jenkins-docker:latest  a7c35368a468    1.83GB       560MB
ubuntu:22.04        3ba65aa20f86    119MB       31.5MB
pes2ug23cs125@pes2ug23cs125:~/CC_Lab-6$ docker run -d -p 5000:5000 -name backend-container backend-app
2694f0ede513dc52e99a0419443ce9083aafe402da8f181140689293b3a24a
pes2ug23cs125@pes2ug23cs125:~/CC_Lab-6$ docker ps
CONTAINER ID   IMAGE           COMMAND          CREATED          STATUS          PORTS          NAMES
3ba65aa20f86   backend-app   "/usr/bin/tini -- /u..."  15 seconds ago  Up 14 seconds  0.0.0.0:5000->5000/tcp, [::]:5000->5000/tcp, 8080/tcp, [::]:8080->8080/tcp, 0.0.0.0:50000->50000/tcp, [::]:50000->50000/tcp   backend-container
02d47f93379   jenkins-docker "/usr/bin/tini -- /u..."  35 minutes ago  Up 35 minutes  0.0.0.0:8080->8080/tcp, 0.0.0.0:50000->50000/tcp, [::]:50000->50000/tcp   jenkins
pes2ug23cs125@pes2ug23cs125:~/CC_Lab-6$
```

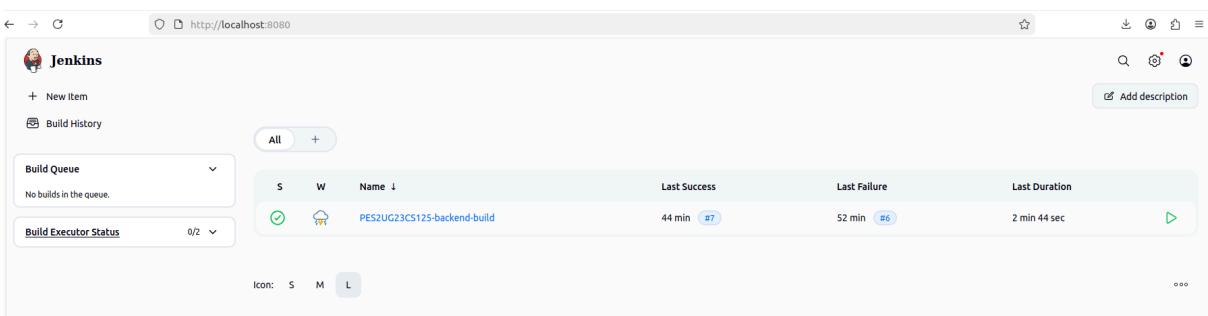
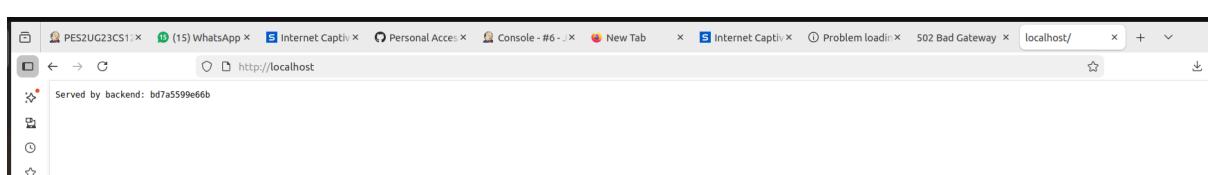
```
pes2ug23cs125@pes2ug23cs125:~/CC_Lab-6$ nano nginx/Dockerfile
pes2ug23cs125@pes2ug23cs125:~/CC_Lab-6$ docker build -t custom-nginx ./nginx
[+] Building 11.7s (8/8) FINISHED
=> [internal] load build definition from Dockerfile
=> => transferring dockerfile: 104B
=> [internal] load metadata for docker.io/library/nginx:latest
=> [auth] library/nginx:pull token for registry-1.docker.io
=> [internal] load .dockerignore
=> => transferring context: 2B
=> [internal] load build context
=> => transferring context: 210B
=> [1/2] FROM docker.io/library/nginx:latest@sha256:0236ee02dcfce00b9bd83e0f5fbc51069e7e1161bd59d99885b3ae1734f3392e
=> => resolve docker.io/library/nginx:latest@sha256:0236ee02dcfce00b9bd83e0f5fbc51069e7e1161bd59d99885b3ae1734f3392e
=> => sha256:dff0b66c867491634d63f065ef5ea556cba20a97761039f9e9d5af71442f8fb 1.40kB / 1.40kB
=> => sha256:17d0911eaaf62f5c4c34e54943d30dbb0d86bbad6480ef5ee0249ff54a3373a 1.21kB / 1.21kB
=> => sha256:eedda9fd87862df4b2eccd3da9f2e38122124dec2e4217b530bd48d809b3840b 954B / 954B
=> => sha256:b47f187216b08c3f90b7fb9a947a76d4bd2981a8f7469cb0092e7da5d9fea014 33.14kB / 33.14kB
=> => sha256:1ad2339804a1106fd3832d9657b163937f66c906795a517a87b516bc3f2481695 626B / 626B
=> => sha256:206356c42440674ecbf1070cf70ce8ef7885ac2e5c56f1ecf800b758f6b0419 29.78MB / 29.78MB
=> => extracting sha256:206356c42440674ecbf1070cf70ce8ef7885ac2e5c56f1ecf800b758f6b0419
=> => extracting sha256:b47f187216b08c3f90b7fb9a947a76d4bd2981a8f7469cb0092e7da5d9fea014
=> => extracting sha256:1ad233904a1166fd3832d9657b163937f66c906795a517a87b516bc3f2481695
=> => extracting sha256:eedda9fd87862df4b2eccd3da9f2e38122124dec2e4217b530bd48d809b3840b
=> => extracting sha256:35f8c394d65bf2c49f844ba18fe2e8121fe07e1f3f92325c05246319b98f7e
=> => extracting sha256:17d0911eaaf62f5c4c34e54943d30dbb0d86bbad6480ef5ee0249ff54a3373a
=> => extracting sha256:dff0b66c867491634d63f065ef5ea556cba20a97761039f9e9d5af71442f8fb
=> [2/2] COPY default.conf /etc/nginx/conf.d/default.conf
=> exporting to image
=> exporting layers
=> => exporting manifest sha256:77a7337ae17cad16949746812ec549eecca115b6289b3899705b8e70e0ce1443e
=> => exporting config sha256:f1ad757d0be32d75bac79e0ebc70c49a72fb77e94d9d0aae69e7641217396
=> => exporting attestation manifest sha256:7bbbf1dc9d52c598d27529c14afde96ebd1ca03542b363e0c1f3aaab3b214cc
=> => exporting manifest list sha256:45086cf9d385b1158c6e8c19bb5347f5cf42896968cf0690b6ab723806d23e
=> => naming to docker.io/library/custom-nginx:latest
=> => unpacking to docker.io/library/custom-nginx:latest
pes2ug23cs125@pes2ug23cs125:~/CC_Lab-6$
```

```
pes2ug23cs125@pes2ug23cs125:~/CC_Lab-6$ docker images

```

IMAGE	ID	DISK USAGE	CONTENT SIZE	EXTRA
backend-app:latest	9f37b0a8a484	557MB	166MB	U
custom-nginx:latest	1e0a2c9fa7ec	237MB	62.9MB	U
jenkins-docker:latest	a7c35368a468	1.83GB	560MB	U
ubuntu:22.04	3ba65aa20f86	119MB	31.5MB	

```
pes2ug23cs125@pes2ug23cs125:~/CC_Lab-6$ docker ps
CONTAINER ID   IMAGE           COMMAND          CREATED          STATUS          PORTS          NAMES
04c18a662566   custom-nginx   "/docker-entrypoint..."  10 minutes ago  Up 10 minutes  0.0.0.0:80->80/tcp, [::]:80->80/tcp   nginx-cont
bd7a599e66b   backend-app   "/usr/bin/tini -- /u..."  14 minutes ago  Up 14 minutes  8080/tcp, [::]:8080->8080/tcp   backend-cont
02d47f93379   jenkins-docker "/usr/bin/tini -- /u..."  About an hour ago  Up About an hour  0.0.0.0:8080->8080/tcp, [::]:8080->8080/tcp, 0.0.0.0:50000->50000/tcp, [::]:50000->50000/tcp   jenkins
pes2ug23cs125@pes2ug23cs125:~/CC_Lab-6$
```



```

pes2ug23cs125@pes2ug23cs125:~/CC_Lab-0$ docker run -d --name backend-container --network lab-network backend-app
bd7a5599e6bb906e901ea35f7ad84632f45a526fb0875141bb85f9f61345b
pes2ug23cs125@pes2ug23cs125:~/CC_Lab-0$ docker run -d -p 80:80 --name nginx-container --network lab-network custom-nginx
82b681d073d1373054395bd2a5afb5161dec3079b325f8949b09b51e51db217
pes2ug23cs125@pes2ug23cs125:~/CC_Lab-0$ docker inspect backend-container | grep NetworkMode
    "NetworkMode": "lab-network",
pes2ug23cs125@pes2ug23cs125:~/CC_Lab-0$ docker inspect nginx-container | grep NetworkMode
    "NetworkMode": "lab-network",
pes2ug23cs125@pes2ug23cs125:~/CC_Lab-0$ docker logs backend-container
Server listening on port 8080 (hostname: bd7a5599e6bb)
pes2ug23cs125@pes2ug23cs125:~/CC_Lab-0$ nano nginx/default.conf
pes2ug23cs125@pes2ug23cs125:~/CC_Lab-0$ docker build -t custom-nginx ./nginx
[+] Building 2.2s (8/8) FINISHED
=> [internal] load build definition from Dockerfile
=> => transferring dockerfile: 104B
=> [internal] load metadata for docker.io/library/nginx:latest
=> [auth] library/nginx:pull token for registry-1.docker.io
=> [internal] load .dockertignore
=> => transferring context: 2B
=> [internal] load build context
=> => transferring context: 1398
=> CACHED [1/2] FROM docker.io/library/nginx:latest@sha256:0236ee02dcfce00b9bd83e0f5fbc51069e7e1161bd59d99885b3ae1734f3392e
=> => resolve docker.io/library/nginx:latest@sha256:0236ee02dcfce00b9bd83e0f5fbc51069e7e1161bd59d99885b3ae1734f3392e
=> [2/2] COPY default.conf /etc/nginx/conf.d/default.conf
=> exporting to image
=> => exporting layers
=> => exporting manifest sha256:3ede0a9467430e107fb0b0c985e6b6e2f7b71fe104a936585fa4a344d2cea
=> => exporting config sha256:a4a89154a85cd3d755bc53ad0f84a558a590ade999a78473e605305833fb3442
=> => exporting attestation manifest sha256:e5254f9d38d65aef5cc2423d79a6a6be25b9a65cbe2387f89726a24c46d2cc22
=> => exporting manifest list sha256:1e0a2c9fa7ec5c8e94abac84f0aa1f8183f66a28402da6cdb7fe855df9eb3a9
=> => naming to docker.io/library/custom-nginx:latest
=> => unpacking to docker.io/library/custom-nginx:latest
=> => building docker.io/library/custom-nginx:latest
=> => building docker.io/library/custom-nginx:latest
pes2ug23cs125@pes2ug23cs125:~/CC_Lab-0$ docker stop nginx_container

```

Task 3:

SS5)

Build	Timestamp
#8	11:20 AM
#7	10:25 AM
#6	10:17 AM
#5	10:17 AM
#4	10:15 AM
#3	9:53 AM

Build	Timestamp
#8	11:20 AM
#7	10:25 AM
#6	10:17 AM
#5	10:17 AM
#4	10:15 AM
#3	9:53 AM

Console

```

Started by user PES2UG23CS125
Running as SYSTEM
Building in workspace /var/jenkins_home/workspace/PES2UG23CS125-backend-build
The recommended git tool is: NONE
No credentials specified
> git rev-parse --resolve-git-dir /var/jenkins_home/workspace/PES2UG23CS125-backend-build/.git # timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url https://github.com/Bhavanibakkappa/CC_Lab-6.git # timeout=10
Fetching upstream changes from https://github.com/Bhavanibakkappa/CC_Lab-6.git
> git --version # timeout=10
> git fetch --tags --force --progress -- https://github.com/Bhavanibakkappa/CC_Lab-6.git +refs/heads/*:refs/remotes/origin/*
> git rev-parse refs/remotes/origin/main^(commit) # timeout=10
Checking out Revision af800bb52fc96beb61e65196f2901fd336a7b166 (refs/remotes/origin/main)
> git config core.sparsecheckout # timeout=10
> git checkout -f af800bb52fc96beb61e65196f2901fd336a7b166 # timeout=10
Commit message: "Initial Jenkins lab setup"
> git rev-list --no-walk af800bb52fc96beb61e65196f2901fd336a7b166 # timeout=10
[PES2UG23CS125-backend-build] $ /bin/sh -xe /tmp/jenkins5870377957281336373.sh
+ docker rm -f backend1 backend2
Error response from daemon: No such container: backend1
Error response from daemon: No such container: backend2
+ [ 1 = 1 ]
+ docker run -d --name backend1 backend-app
2db411b046631500638e66f5d5327c89d6f50c12b6b71733681763636caa32d

```

Console Output

```

Started by user PES2UG23CS125
Running as SYSTEM
Building in workspace /var/jenkins_home/workspace/PES2UG23CS125-backend-build
The recommended git tool is: NONE
No credentials specified
> git rev-parse --resolve-git-dir /var/jenkins_home/workspace/PES2UG23CS125-backend-build/.git # timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url https://github.com/Bhavanibakkappa/CC_Lab-6.git # timeout=10
Fetching upstream changes from https://github.com/Bhavanibakkappa/CC_Lab-6.git
> git --version # timeout=10
> git fetch --tags --force --progress -- https://github.com/Bhavanibakkappa/CC_Lab-6.git +refs/heads/*:refs/remotes/origin/*
> git rev-parse refs/remotes/origin/main^(commit) # timeout=10
Checking out Revision af800bb52fc96beb61e65196f2901fd336a7b166 (refs/remotes/origin/main)
> git config core.sparsecheckout # timeout=10
> git checkout -f af800bb52fc96beb61e65196f2901fd336a7b166 # timeout=10
Commit message: "Initial Jenkins lab setup"
> git rev-list --no-walk af800bb52fc96beb61e65196f2901fd336a7b166 # timeout=10
[PES2UG23CS125-backend-build] $ /bin/sh -xe /tmp/jenkins5870377957281336373.sh
+ docker rm -f backend1 backend2
Error response from daemon: No such container: backend1
Error response from daemon: No such container: backend2
+ [ 1 = 1 ]
+ docker run -d --name backend1 backend-app
2db411b046631500638e66f5d5327c89d6f50c12b6b71733681763636caa32d
Finished: SUCCESS

```

Project PES2UG23CS125-backend-build

This build requires parameters:

Backend_Count

2

Build **Cancel**

Builds >

<input type="checkbox"/>	Filter	<input type="button" value="I"/>
Today		
(✓) #8 11:20 AM	v	
(✓) #7 10:25 AM	v	
(✗) #6 10:17 AM	v	
(✗) #5 10:17 AM	v	
(✗) #4 10:15 AM	v	
(✗) #3 9:53 AM	v	

Jenkins / PES2UG23CS125-backend... Status

PES2UG23CS125-backend-build

Permalinks

- Last build (#9), 0.14 sec ago
- Last stable build (#8), 1 min 32 sec ago
- Last successful build (#8), 1 min 32 sec ago
- Last failed build (#6), 1 hr 4 min ago
- Last unsuccessful build (#6), 1 hr 4 min ago
- Last completed build (#8), 1 min 32 sec ago

Builds >

Build #	Time
#9	11:22 AM
#8	11:20 AM
#7	10:25 AM
#6	10:17 AM
#5	10:17 AM
#4	10:15 AM

Jenkins / PES2UG23CS125-backend... #9 Status

Console

Started by user PES2UG23CS125

```
Running as SYSTEM
Building in workspace /var/jenkins_home/workspace/PES2UG23CS125-backend-build
The recommended git tool is: NONE
No credentials specified
> git rev-parse --resolve-git-dir /var/jenkins_home/workspace/PES2UG23CS125-backend-build/.git # timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url https://github.com/Bhavanibakkappa/CC_Lab-6.git # timeout=10
Fetching upstream changes from https://github.com/Bhavanibakkappa/CC_Lab-6.git
> git --version # timeout=10
> git -v version 2.47.3
> git fetch --tags --force --progress -- https://github.com/Bhavanibakkappa/CC_Lab-6.git +refs/heads/*:refs/remotes/origin/*
> git rev-parse refs/remotes/origin/main^{commit} # timeout=10
Checking out Revision af800bb52fc96beb61e65196f2901fd336a7b166 (refs/remotes/origin/main)
> git config core.sparsecheckout # timeout=10
> git checkout -f af800bb52fc96beb61e65196f2901fd336a7b166 # timeout=10
Commit message: "Initial Jenkins lab setup"
> git rev-list --no-walk af800bb52fc96beb61e65196f2901fd336a7b166 # timeout=10
[PES2UG23CS125-backend-build] $ /bin/sh -xe /tmp/jenkins3375357238799057643.sh
+ docker rm -f backend1 backend2
backend1
Error response from daemon: No such container: backend2
+ [ 2 = 1 ]
+ docker run -d --name backend1 backend-app
ea3ca8a889f7a9ba97039fcc295303c17d4e11bdcaf410ea4b03f0dc59bb675
```

Jenkins / PES2UG23CS125-backend... #9 Status

Console

Started by user PES2UG23CS125

```
> git rev-parse --resolve-git-dir /var/jenkins_home/workspace/PES2UG23CS125-backend-build/.git # timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url https://github.com/Bhavanibakkappa/CC_Lab-6.git # timeout=10
Fetching upstream changes from https://github.com/Bhavanibakkappa/CC_Lab-6.git
> git --version # timeout=10
> git -v version 2.47.3
> git fetch --tags --force --progress -- https://github.com/Bhavanibakkappa/CC_Lab-6.git +refs/heads/*:refs/remotes/origin/*
> git rev-parse refs/remotes/origin/main^{commit} # timeout=10
Checking out Revision af800bb52fc96beb61e65196f2901fd336a7b166 (refs/remotes/origin/main)
> git config core.sparsecheckout # timeout=10
> git checkout -f af800bb52fc96beb61e65196f2901fd336a7b166 # timeout=10
Commit message: "Initial Jenkins lab setup"
> git rev-list --no-walk af800bb52fc96beb61e65196f2901fd336a7b166 # timeout=10
[PES2UG23CS125-backend-build] $ /bin/sh -xe /tmp/jenkins3375357238799057643.sh
+ docker rm -f backend1 backend2
backend1
Error response from daemon: No such container: backend2
+ [ 2 = 1 ]
+ docker run -d --name backend1 backend-app
ea3ca8a889f7a9ba97039fcc295303c17d4e11bdcaf410ea4b03f0dc59bb675
+ docker run -d --name backend2 backend-app
44809ac2e3f2c4937a8467d173cf6583fe157b3c73029df8624ad6ca8e267439
+ docker run -d --name backend3 backend-app
Finished: SUCCESS
```

Jenkins 2.541.2

Task 4: SS6)

PES2UG23CS (13) WhatsApp Internet Cap Internet Cap CC_Lab-6/Jenkins New Tab Internet Cap Problem load 502 Bad Gateway localhost/ LAB6-PIPELINE localhost/

Served by backend: 4365c9e5a3fd

Jenkins / LAB6-PIPELINE-NGINX

Status

- </> Changes
- ▷ Build Now
- ⚙ Configure
- >Delete Pipeline
- Stages
- ✍ Rename
- ⓘ Pipeline Syntax

Permalinks

- Last build (#3), 12 min ago
- Last stable build (#3), 12 min ago
- Last successful build (#3), 12 min ago
- Last failed build (#2), 1 hr 14 min ago
- Last unsuccessful build (#2), 1 hr 14 min ago
- Last completed build (#3), 12 min ago

Builds >

...
Filter <input type="text"/>
Today
🕒 #3 12:47 PM
🕒 #2 11:45 AM
🕒 #1 11:37 AM

REST API Jenkins 2.541.2

Jenkins / LAB6-PIPELINE-NGINX / #3

Status

- </> Changes
- Console Output
- Edit Build Information
- Delete build '#3'
- Timings
- Git Build Data
- Pipeline Overview
- Restart from Stage
- Replay
- Pipeline Steps
- Workspaces
- ← Previous Build

Console

```

Started by user PES2UG23CS125
Obtained Jenkinsfile from git https://github.com/Bhavanibakkappa/CC_Lab-6.git
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins in /var/jenkins_home/workspace/LAB6-PIPELINE-NGINX
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Declarative: Checkout SCM)
[Pipeline] checkout
Selected Git installation does not exist. Using Default
The recommended git tool is: NONE
No credentials specified
> git rev-parse --resolve-git-dir /var/jenkins_home/workspace/LAB6-PIPELINE-NGINX/.git # timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url https://github.com/Bhavanibakkappa/CC_Lab-6.git # timeout=10
Fetching upstream changes from https://github.com/Bhavanibakkappa/CC_Lab-6.git
> git -version # timeout=10
> git -version # 'git' version 2.47.3'
> git fetch --tags --force --progress -- https://github.com/Bhavanibakkappa/CC_Lab-6.git +refs/heads/*:refs/remotes/origin/* # timeout=10
> git rev-parse refs/remotes/origin/main^{commit} # timeout=10
Checking out revision b262ba6a7dcff0e137b469a0a9d2cc6cc2ae169 (refs/remotes/origin/main)
> git config core.sparsecheckout # timeout=10
> git checkout -f b262ba6a7dcff0e137b469a0a9d2cc6cc2ae169 # timeout=10
Commit message: "Update Jenkinsfile"
> git rev-list --no-walk b262ba6a7dc6ff0e137b469a0a9d2cc6cc2ae169 # timeout=10

```

Jenkins / LAB6-PIPELINE-NGINX / #3

Status

- </> Changes
- Console Output
- Edit Build Information
- Delete build '#3'
- Timings
- Git Build Data
- Pipeline Overview
- Restart from Stage
- Replay
- Pipeline Steps
- Workspaces
- ← Previous Build

```

[Pipeline] {
  (Deploy NGINX Load Balancer)
  [Pipeline] sh
  + docker rm -f nginx-lb
  nginx-lb
  + docker run -d --name nginx-lb --network app-network -p 80:80 nginx
  201261b54e16680f5f8af16a52d4540e34bf641be48de4fbaec3fc6697f14b
  + docker cp nginx/default.conf nginx-lb:/etc/nginx/conf.d/default.conf
  + docker exec nginx-lb nginx -s reload
  2026/02/26 12:47:24 [notice] 30#30: signal process started
[Pipeline]
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Declarative: Post Actions)
[Pipeline] echo
Pipeline executed successfully. NGINX load balancer is running.
[Pipeline]
[Pipeline] // stage
[Pipeline]
[Pipeline] // withEnv
[Pipeline]
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS

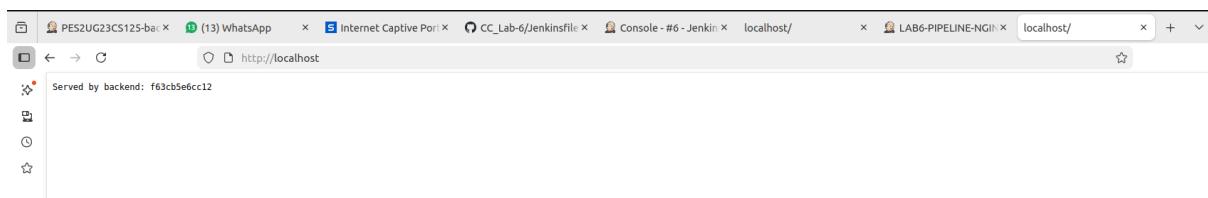
```

Jenkins 2.541.2

```

pes2ug23cs125@pes2ug23cs125:~/CC_Lab-6$ docker ps
CONTAINER ID        IMAGE               COMMAND             CREATED            STATUS              PORTS                               NAMES
3cb048ded669        backend-app        "/app"            59 minutes ago     Up 59 minutes      8080/tcp
6567973d21be        backend-app        "/app"            59 minutes ago     Up 59 minutes      8080/tcp
64c31ad62566        custom-nginx       "/docker-entrypoint..."   2 hours ago       Up 2 hours        0.0.0.0:80->80/tcp, [::]:80->80/tcp
bd7a5599e66b        9f37b0a8a484     "/app"            2 hours ago       Up 2 hours        8080/tcp
02dd47f93379        jenkins-docker    "/usr/bin/tini --u..."  3 hours ago       Up 3 hours        0.0.0.0:8080->8080/tcp, 0.0.0.0:50000->50000/tcp, [::]:50000->50000/tcp   jenkins

```

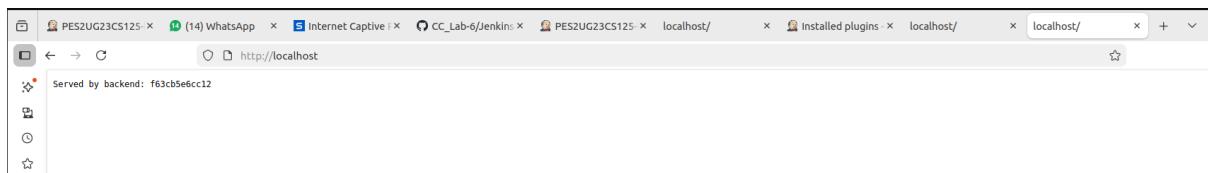
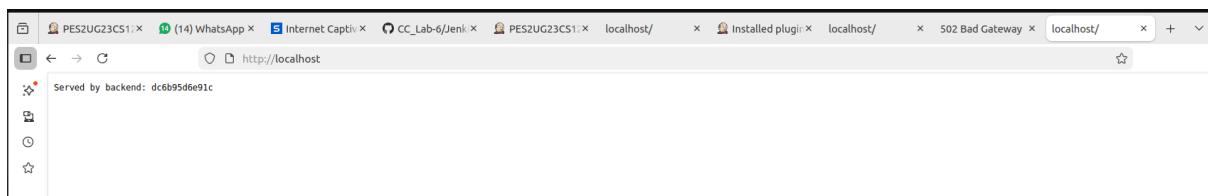


Task 5:

SS7)

```
pes2ug23cs125@pes2ug23cs125: ~/CC_Lab-6
GNU nano 6.2
upstream backend_servers {
    server backend1:8080;
    server backend2:8080;
}

server {
    listen 80;
    location / {
        proxy_pass http://backend_servers;
    }
}
```



```
pes2ug23cs125@pes2ug23cs125:~/CC_Lab-6$ docker ps
CONTAINER ID   IMAGE       COMMAND      CREATED     STATUS      PORTS          NAMES
dc6b95d6e91c   backend-app   ".app"      4 seconds ago   Up 4 seconds   8080/tcp      backend2
bf12a444e157   backend-app   ".app"      18 minutes ago  Up 18 minutes  8080/tcp      backend1
201261b54e16   nginx       "/docker-entrypoint..."  40 minutes ago  Up 40 minutes  0.0.0.0:80->80/tcp, [::]:80->80/tcp, nginx-lb
02dd47f93379   jenkins-docker  "/usr/bin/tini -- /u...  3 hours ago    Up 3 hours    0.0.0.0:8080->8080/tcp, 0.0.0.0:50000->50000/tcp, [::]:50000->50000/tcp  jenkins
pes2ug23cs125@pes2ug23cs125:~/CC_Lab-6$
```

```
pes2ug23cs125@pes2ug23cs125:~/CC_Lab-6$ git pull origin main --rebase
remote: Enumerating objects: 8, done.
remote: Counting objects: 100% (8/8), done.
remote: Compressing objects: 100% (6/6), done.
remote: Total 6 (delta 4), reused 0 (delta 0), pack-reused 0 (from 0)
Unpacking objects: 100% (6/6), 1.83 KiB | 936.00 KiB/s, done.
From https://github.com/Bhavanibakkappa/CC_Lab-6
 * branch            main      -> FETCH_HEAD
   af800bb..b262ba6  main      -> origin/main
Successfully rebased and updated refs/heads/main.
pes2ug23cs125@pes2ug23cs125:~/CC_Lab-6$ git push origin main
Username for 'https://github.com': Bhavanibakkappa
Password for 'https://Bhavanibakkappa@github.com':
Enumerating objects: 7, done.
Counting objects: 100% (7/7), done.
Delta compression using up to 2 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (4/4), 357 bytes | 357.00 KiB/s, done.
Total 4 (delta 2), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (2/2), completed with 2 local objects.
To https://github.com/Bhavanibakkappa/CC_Lab-6.git
  b262ba6..e689111  main -> main
pes2ug23cs125@pes2ug23cs125:~/CC_Lab-6$
```

```
pes2ug23cs125@pes2ug23cs125:~/CC_Lab-6
GNU nano 6.2
upstream backend_servers {
    ip_hash;
    server backend1:8080;
    server backend2:8080;
}

server {
    listen 80;
    location / {
        proxy_pass http://backend_servers;
    }
}
```

```
pes2ug23cs125@pes2ug23cs125:~/CC_Lab-6$ nano nginx/default.conf
pes2ug23cs125@pes2ug23cs125:~/CC_Lab-6$ git add nginx/default.conf
pes2ug23cs125@pes2ug23cs125:~/CC_Lab-6$ git commit -m "Changed to ip_hash load balancing"
[main 8c35b5d] Changed to ip_hash load balancing
 1 file changed, 1 insertion(+)
pes2ug23cs125@pes2ug23cs125:~/CC_Lab-6$ git push origin main
Username for 'https://github.com': Bhavanibakkappa
Password for 'https://Bhavanibakkappa@github.com':
Enumerating objects: 7, done.
Counting objects: 100% (7/7), done.
Delta compression using up to 2 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (4/4), 360 bytes | 360.00 KiB/s, done.
Total 4 (delta 2), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (2/2), completed with 2 local objects.
To https://github.com/Bhavanibakkappa/CC_Lab-6.git
  e689111..8c35b5d  main -> main
pes2ug23cs125@pes2ug23cs125:~/CC_Lab-6$
```