

JENKINS Task 1

1) INSTALL JENKINS AND RUN JENKINS ON PORT NUMBER 8081.

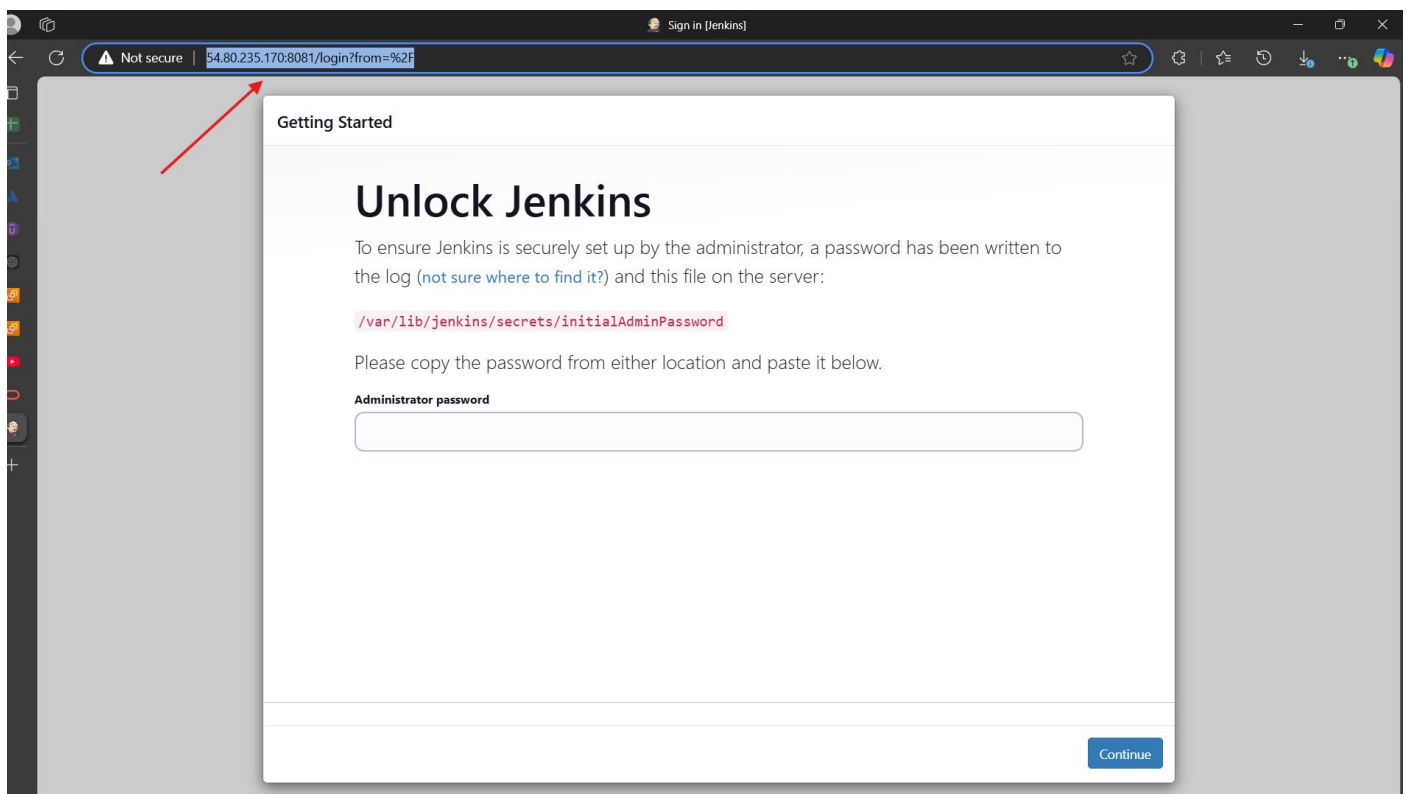
```
[root@ip-10-0-0-69 ~]# systemctl status jenkins.service
jenkins.service - Jenkins Continuous Integration Server
Loaded: loaded (/usr/lib/systemd/system/jenkins.service; disabled; vendor preset: disabled)
Active: active (running) since Wed 2024-11-27 10:09:10 UTC; 4min 56s ago
Main PID: 4810 (java)
CGroup: /system.slice/jenkins.service
└─4810 /usr/bin/java -Djava.awt.headless=true -jar /usr/share/java/jenkins.war --webroot=%C/jenkins/war --httpPort=8080

Nov 27 10:09:04 ip-10-0-0-69.ec2.internal jenkins[4810]: a865f52050c244f894488b46a7a1fbcd
Nov 27 10:09:04 ip-10-0-0-69.ec2.internal jenkins[4810]: This may also be found at: /var/lib/jenkins/secrets/initialAdminPassword
Nov 27 10:09:04 ip-10-0-0-69.ec2.internal jenkins[4810]: *****
Nov 27 10:09:04 ip-10-0-0-69.ec2.internal jenkins[4810]: *****
Nov 27 10:09:09 ip-10-0-0-69.ec2.internal jenkins[4810]: 2024-11-27 10:09:09.977+0000 [id=32] INFO jenkins.InitReactorR
Nov 27 10:09:10 ip-10-0-0-69.ec2.internal jenkins[4810]: 2024-11-27 10:09:10.001+0000 [id=24] INFO hudson.lifecycle.Lif
Nov 27 10:09:10 ip-10-0-0-69.ec2.internal systemd[1]: Started Jenkins Continuous Integration Server.
Nov 27 10:09:10 ip-10-0-0-69.ec2.internal jenkins[4810]: 2024-11-27 10:09:10.228+0000 [id=47] INFO h.m.DownloadServiceS
Nov 27 10:09:10 ip-10-0-0-69.ec2.internal jenkins[4810]: 2024-11-27 10:09:10.229+0000 [id=47] INFO hudson.util.Retrier#
Hint: Some lines were ellipsized, use -l to show in full.
[root@ip-10-0-0-69 ~]# lsof -i tcp:8080
COMMAND PID USER FD TYPE DEVICE SIZE/OFF NODE NAME
java 4810 jenkins 8u IPv6 68719 0t0 TCP *:webcache (LISTEN)
```

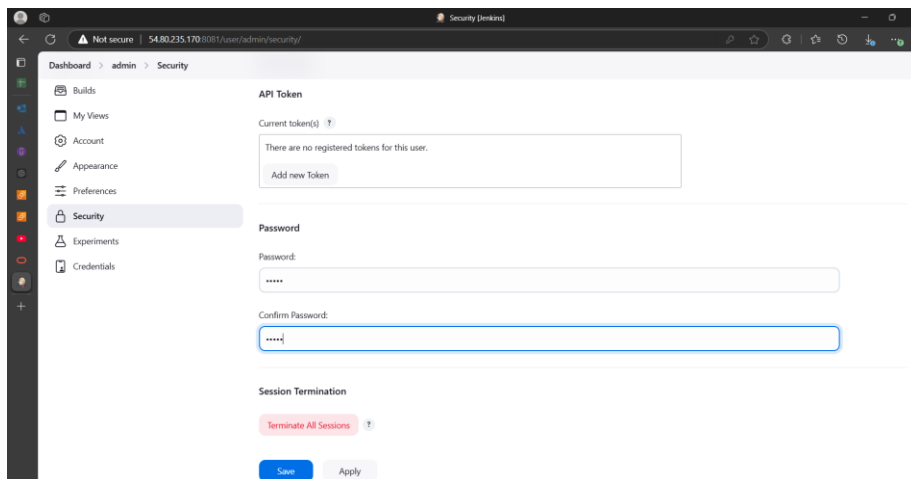
>>>CHANGING PORT NO OF JENKINS TO 8081

```
[root@ip-10-0-0-69 lib]# find / -name jenkins.service
/sys/fs/cgroup/systemd/system.slice/jenkins.service
/usr/lib/systemd/system/jenkins.service
[root@ip-10-0-0-69 lib]# vi /usr/lib/systemd/system/jenkins.service
[root@ip-10-0-0-69 lib]# systemctl restart jenkins
[root@ip-10-0-0-69 lib]# systemctl status jenkins | grep -http
grep: invalid option -- 't'
Usage: grep [OPTION]... PATTERN [FILE]...
Try 'grep --help' for more information.
[root@ip-10-0-0-69 lib]# systemctl status jenkins
jenkins.service - Jenkins Continuous Integration Server
Loaded: loaded (/usr/lib/systemd/system/jenkins.service; disabled; vendor preset: disabled)
Active: active (running) since Wed 2024-11-27 10:31:22 UTC; 31s ago
Main PID: 19048 (java)
CGroup: /system.slice/jenkins.service
└─19048 /usr/bin/java -Djava.awt.headless=true -jar /usr/share/java/jenkins.war --webroot=%C/jenkins/war --httpPort=8081
```

>>>CHECKING ON WEB BRO

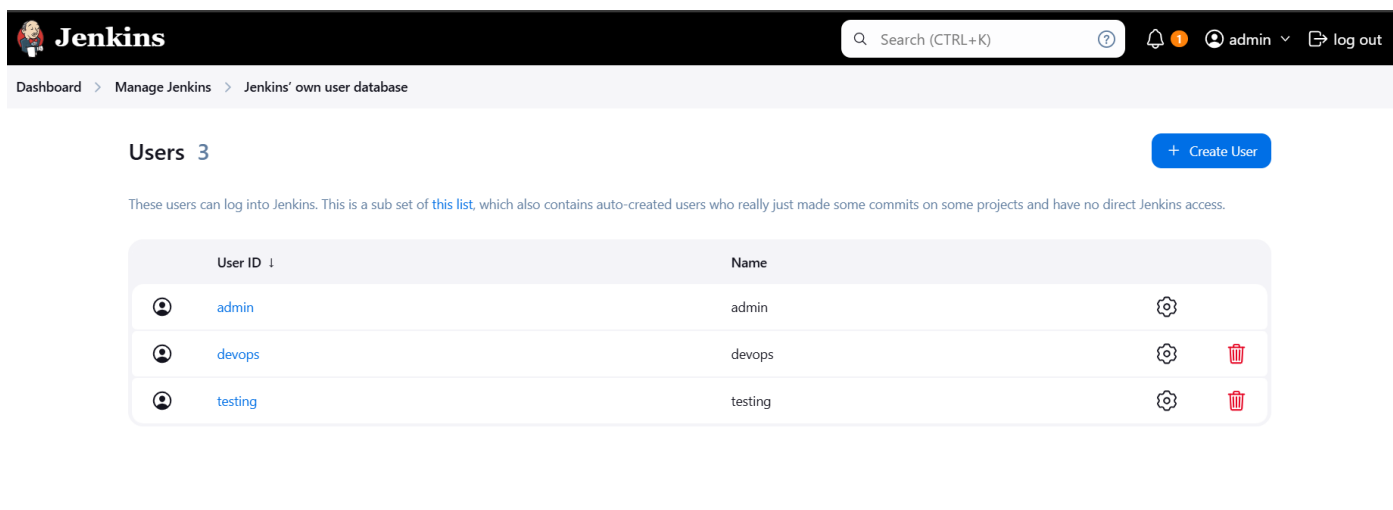


2) SECURE JENKINS SERVER



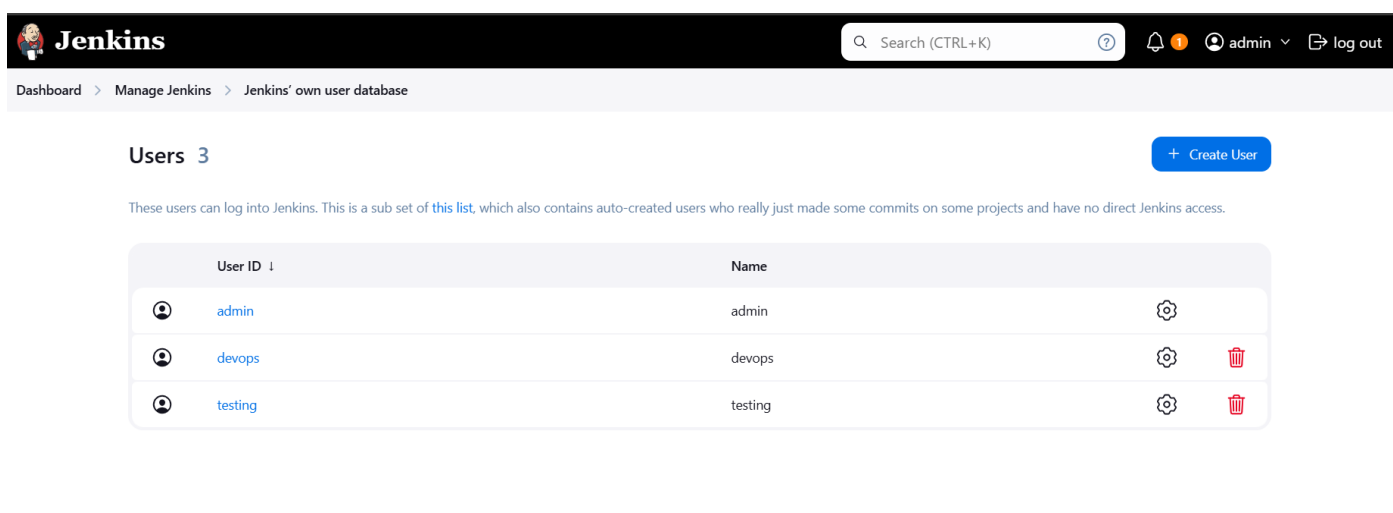
The screenshot shows the Jenkins Security configuration page. The left sidebar contains links to Builds, My Views, Account, Appearance, Preferences, Security (selected), Experiments, and Credentials. The main content area is titled 'Security (Jenkins)' and includes sections for API Token, Password, and Session Termination. The API Token section shows 'Current token(s)' with a message 'There are no registered tokens for this user.' and a button 'Add new Token'. The Password section has fields for 'Password:' and 'Confirm Password:', both containing masked text. The Session Termination section has a red button 'Terminate All Sessions' and 'Save' and 'Apply' buttons at the bottom.

3) CREATE USERS CALLED DEVOPS, TESTING IN JENKINS WITH LIMITED ACCESS.



The screenshot shows the Jenkins 'Users' page. The header includes the Jenkins logo, a search bar, and user information (admin). The breadcrumb trail is 'Dashboard > Manage Jenkins > Jenkins' own user database'. The page title is 'Users 3' with a '+ Create User' button. A note states: 'These users can log into Jenkins. This is a sub set of [this list](#), which also contains auto-created users who really just made some commits on some projects and have no direct Jenkins access.'

User ID ↓	Name	
admin	admin	
devops	devops	
testing	testing	



This screenshot is identical to the one above, showing the Jenkins 'Users' page with the same header, breadcrumb trail, page title, note, and table of users (admin, devops, testing).

4) CONFIGURE LABELS AND RESTRICT THE JOBS TO EXECUTE BASED ON LABEL ONLY.

The screenshot shows the Jenkins Dashboard with the following elements:

- Left Sidebar:** Contains navigation links for 'New Item', 'Build History', 'Manage Jenkins', and 'My Views'. A red arrow points to the 'My Views' link.
- Top Bar:** Displays the Jenkins logo, a search bar, and user information (admin, log out).
- Main Content Area:**
 - Build Queue:** Shows a message: 'Started by user admin. Jenkins is reserved for jobs with matching label expression. Waiting for 5 min 2 sec.' A red arrow points to this message.
 - Build Executor Status:** Shows a progress bar for 'sample-2' with a red arrow pointing to it.
 - Jobs Table:** A table with columns: S, W, Name, Last Success, Last Failure, Last Duration. It lists three jobs: 'sample-1', 'sample-2', and 'test'. A red arrow points to the 'sample-2' row.

5) CREATE THREE SAMPLE JOBS USING THE BELOW URL.

[HTTPS://GITHUB.COM/BETAWINS/TECHIE_HORIZON_LOGIN_APP.GIT](https://github.com/BETAWINS/TECHIE_HORIZON_LOGIN_APP.GIT)

The screenshot shows the Jenkins Dashboard with the following elements:

- Left Sidebar:** Contains navigation links for 'New Item', 'Build History', 'Manage Jenkins', and 'My Views'.
- Top Bar:** Displays the Jenkins logo, a search bar, and user information (admin, log out).
- Main Content Area:**
 - Build Queue:** Shows a message: 'No builds in the queue.'
 - Build Executor Status:** Shows a message: '(0 of 2 executors busy)'.
 - Jobs Table:** A table with columns: S, W, Name, Last Success, Last Failure, Last Duration. It lists three jobs: 'sample-1', 'sample-2', and 'test'. A red box highlights the 'sample-1' and 'sample-2' rows.

The screenshot shows a terminal window with the following commands and output:

```
[root@ip-10-0-0-69 sample-1]# cd /var/lib/jenkins/
[root@ip-10-0-0-69 jenkins]# ls
config.xml
jenkins.model.JenkinsLocationConfiguration.xml
jenkins.plugins.git.GitHooksConfiguration.xml
jenkins.plugins.git.GitTool.xml
jenkins.security.ApiTokenPropertyConfiguration.xml
jenkins.security.QueueItemAuthenticatorConfiguration.xml
jenkins.security.UpdateSiteWarningsConfiguration.xml
jenkins.telemetry.Correlator.xml
logs
nodeMonitors.xml
org.jenkinsci.plugins.gitclient.GitHostKeyVerificationConfiguration.xml
plugins
queue.xml
queue.xml.bak
scriptApproval.xml
secret.key
secret.key.not-so-secret
secrets
updates
userContent
workspace
```

A red arrow points to the 'workspace' directory. Below the terminal output, a red box highlights the following files:

- ansible
- azure-pipelines.yml
- Dockerfile
- pom.xml
- README.md
- src