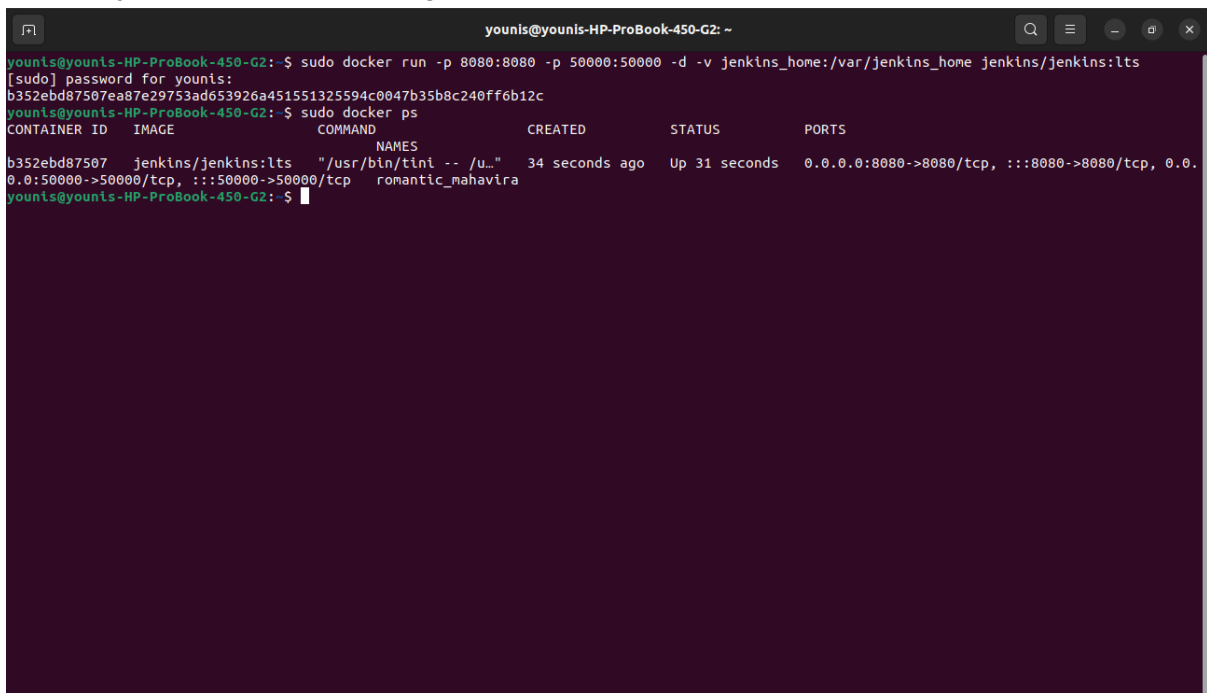


1. What is Jenkins used for?

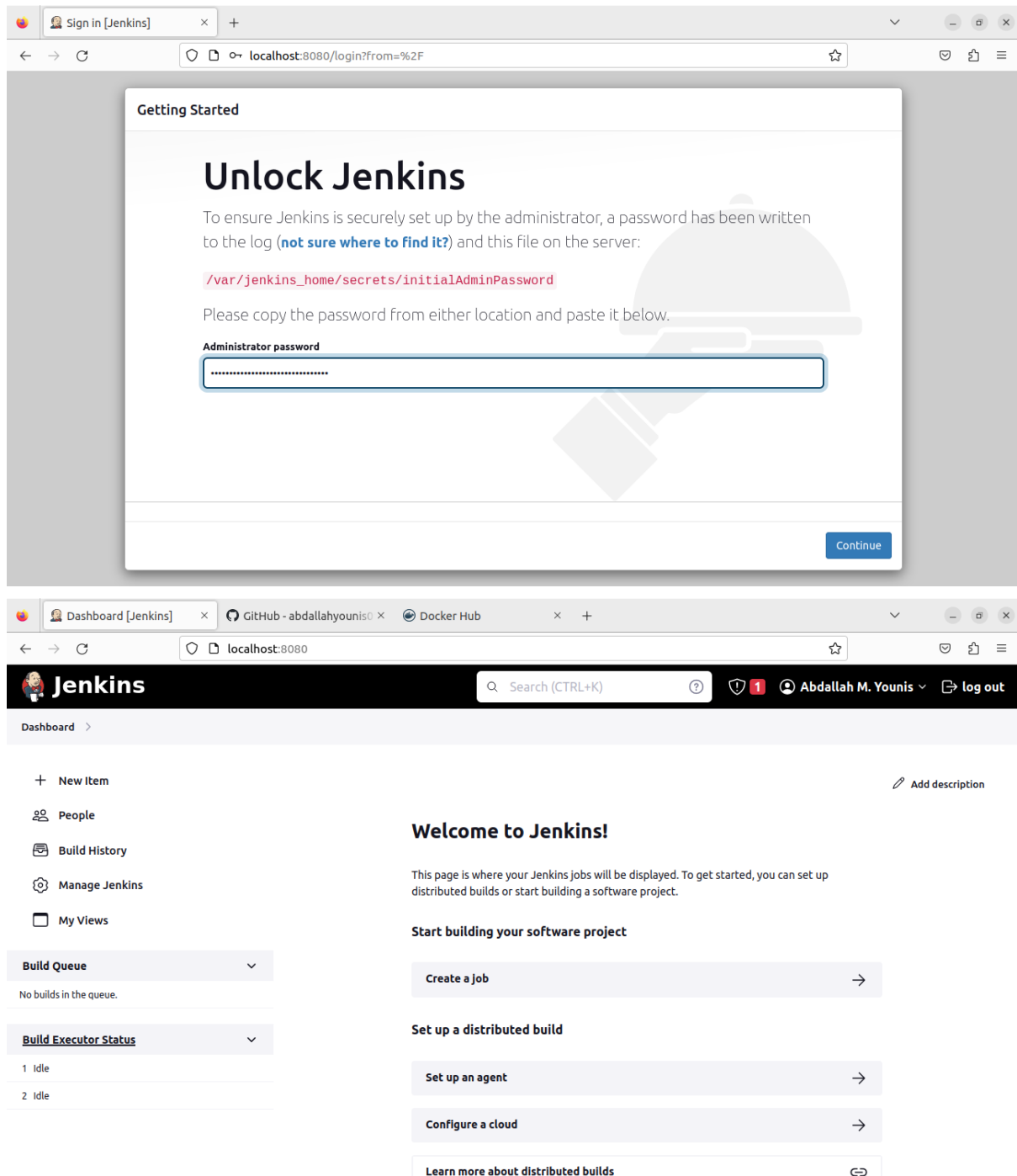
Jenkins is primarily used for three purposes:

1. Continuous Integration (CI): Jenkins helps automate the build and testing of software applications, ensuring that changes made to the codebase do not introduce new errors or conflicts.
2. Continuous Delivery (CD): Jenkins helps automate the deployment of software applications, allowing development teams to quickly and easily deliver new features and updates to users.
3. Build and Test Automation: Jenkins provides powerful automation capabilities for building and testing software applications, including support for parallel and distributed builds, test reporting, and automated testing frameworks.

2. Install jenkins with docker image.

A terminal window titled 'younis@younis-HP-ProBook-450-G2: ~' showing the installation of Jenkins using Docker. The user runs 'sudo docker run -p 8080:8080 -p 50000:50000 -d -v jenkins_home:/var/jenkins_home jenkins/jenkins:lts'. A password prompt is shown. Then, the user runs 'sudo docker ps' which displays a table of running containers.

```
younis@younis-HP-ProBook-450-G2: ~  
[sudo] password for younis:  
b352ebd87507ea87e29753ad653926a451551325594c0047b35b8c240ff6b12c  
younis@younis-HP-ProBook-450-G2:~$ sudo docker ps  
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS  
b352ebd87507   jenkins/jenkins:lts   "/usr/bin/tini -- /u..." 34 seconds ago Up 31 seconds 0.0.0.0:8080->8080/tcp, :::8080->8080/tcp, 0.0.0.0:50000->50000/tcp, :::50000->50000/tcp  
romantic_mahavira  
younis@younis-HP-ProBook-450-G2:~$
```



The image shows two screenshots of the Jenkins web interface. The top screenshot is the 'Getting Started' page, titled 'Unlock Jenkins'. It explains that a password has been written to the log file `/var/jenkins_home/secrets/initialAdminPassword` and asks the user to copy and paste it into the 'Administrator password' field. A 'Continue' button is at the bottom right. The bottom screenshot is the Jenkins dashboard. The top navigation bar includes the Jenkins logo, a search bar, a shield icon with a red '1', the user name 'Abdallah M. Younis', and a 'log out' button. The left sidebar contains links for 'New Item', 'People', 'Build History', 'Manage Jenkins', and 'My Views'. The main content area has a 'Welcome to Jenkins!' message, followed by 'Start building your software project' with a 'Create a Job' button, and 'Set up a distributed build' with buttons for 'Set up an agent', 'Configure a cloud', and a link to 'Learn more about distributed builds'. On the left, there are two expandable sections: 'Build Queue' (showing 'No builds in the queue.') and 'Build Executor Status' (showing two idle executors).

Getting Started

Unlock Jenkins

To ensure Jenkins is securely set up by the administrator, a password has been written to the log (**not sure where to find it?**) and this file on the server:

`/var/jenkins_home/secrets/initialAdminPassword`

Please copy the password from either location and paste it below.

Administrator password

Continue

Jenkins Dashboard

Search (CTRL+K) | 1 | Abdallah M. Younis | log out

Dashboard >

+ New Item | Add description

People | Build History | Manage Jenkins | My Views

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 ↗

Build Queue ▾

No builds in the queue.

Build Executor Status ▾

1	Idle
2	Idle

3. What is plugins in Jenkins ?

Plugins in Jenkins are software components that can be installed and used to extend the functionality of the Jenkins automation server. Plugins can add new features, integrate with external tools and services, and provide additional build and test automation capabilities.

4. Create a free style project and link it to a private git repo containing any dockerfile then build an image from this dockerfile and push it to the private docker repo.

The image shows two screenshots of the Jenkins web interface. The top screenshot is the 'New Item' page, where a new job named 'Jenkins-Task01' is being created. The 'Freestyle project' option is selected. The bottom screenshot is the 'Configure' page for the 'Jenkins-Task01' job. The 'Build Steps' section is expanded, showing a single step named 'Execute shell'. The command field contains the following Docker commands:

```
docker build -t abdallahyounis/my-repo:1 .
docker login -u $USER -p $PASSWORD
docker push abdallahyounis/my-repo:1
```

The 'Post-build Actions' section is visible at the bottom, with 'Save' and 'Apply' buttons.

```
Jenkins-Task01 # x System » Global x Your Repository x Personal Access x Docker Hub x New Tab x + v - o x
localhost:8080/job/Jenkins-Task01/7/console 90% ☆
Dashboard > Jenkins-Task01 > #7 > Console Output


WARNING! Using --password via the CLI is insecure. Use --password-stdin.
WARNING! Your password will be stored unencrypted in /var/jenkins_home/.docker/config.json.
Configure a credential helper to remove this warning. See
https://docs.docker.com/engine/reference/commandline/login/#credentials-store

Login Succeeded
+ docker push abdallahyounis/my-repo:1
The push refers to repository [docker.io/abdallahyounis/my-repo]
e4017ca349b2: Preparing
5f70bf18a086: Preparing
4fd834341303: Preparing
5e099cf3f3c8: Preparing
7daac92f43be: Preparing
e60266289ce4: Preparing
4b8862fe7056: Preparing
8cbe4b54fa88: Preparing
8cbe4b54fa88: Waiting
e60266289ce4: Waiting
4b8862fe7056: Waiting
4fd834341303: Mounted from library/nginx
5e099cf3f3c8: Mounted from library/nginx
7daac92f43be: Mounted from library/nginx
e4017ca349b2: Pushed
5f70bf18a086: Pushed
4b8862fe7056: Mounted from library/nginx
e60266289ce4: Mounted from library/nginx
8cbe4b54fa88: Mounted from library/httpd
1: digest: sha256:6441bd24506522cc473d5c3826b3074a5789d2f39842fee5eea238836c3611e7 size: 1986
Finished: SUCCESS
```

Want faster and simpler Kubernetes development? Test out [Telepresence for Docker](#) today.

dockerhub Search Docker Hub Explore Repositories Organizations Help Upgrade abdallahyounis

Explore abdallahyounis/my-repo



abdallahyounis/my-repo ☆

By [abdallahyounis](#) · Updated a minute ago

[Manage Repository](#)

↓ Pulls 0

Overview **Tags**

Sort by Newest Filter Tags

TAG	DIGEST	OS/ARCH	SCANNED	LAST PULL	COMPRESSED SIZE
1	6441bd245065	linux/amd64	---	---	54.54 MB

Last pushed a minute ago by [abdallahyounis](#)

docker pull abdallahyounis/my-re-...