

# JENKINS\_LAB01

01) What is Jenkins used for?

Answer:

Jenkins is used to build and test your product continuously, so developers can continuously integrate changes into the build. Jenkins is the most popular open source CI/CD tool on the market today and is used in support of DevOps, alongside other cloud native tools.

02) What is Jenkins agent? What is Jenkins executor (Build Executor)?

Answer:

A Jenkins agent is typically a machine, or container, which connects to a Jenkins controller and executes tasks when directed by the controller.

A Jenkins executor is a slot for execution of work defined by a Pipeline or job on a Node. A Node may have zero or more Executors configured which corresponds to how many concurrent Jobs or Pipelines are able to execute on that Node.

03) Explain Jenkins master-slave architecture?

Answer:

- The Jenkins master acts to schedule the jobs, assign slaves, and send builds to slaves to execute the jobs.
- It will also monitor the slave state (offline or online) and get back the build result responses from slaves and the display build results on the console output. The workload of building jobs is delegated to multiple slaves.

04) Install jenkins with docker image.

Activities Firefox Feb 7 1:54 AM

People - [Jenkins]

localhost:8080/asynchPeople/ 80%

Centos Wiki Documentation Forums

Jenkins Search (CTRL+K) Ahmed Abdelrhman log out

Dashboard

+ New Item

People

Build History

Manage Jenkins

My Views

Build Queue

No builds in the queue.

Build Executor Status

1 Idle

2 Idle

People

Includes all known "users", including login identities which the current security realm can enumerate, as well as people mentioned in commit messages in recorded changelogs.

| User ID | Name             | Last Commit Activity | On |
|---------|------------------|----------------------|----|
| admin   | Ahmed Abdelrhman | N/A                  |    |

Icon: S M L

Activate Windows  
Go to PC settings to activate Windows.

```
ahmed@localhost:~  
File Edit View Search Terminal Help  
[ahmed@localhost ~]$ sudo docker run -p 8080:8080 -p 50000:50000 -d -v jenkins_home:/var/jenkins_home jenkins/jenkins:ltls  
[sudo] password for ahmed:  
Emulate Docker CLI using podman. Create /etc/containers/nodocker to quiet msg.  
4553a071c91aa7051a9222fec62d77d0beafa339e5b02f3a9a1a743b156f82da
```

05) Create free style project and link it to private git repo containing any dockerfile then build an image from this dockerfile and push it to private docker repo

