

# Jenkins

## lab\_1

### 1- What is Jenkins used for ?

- Jenkins is used to build and test your product continuously, so developers can continuously integrate changes into the build.

### 2- What is Jenkins agent? What is Jenkins executor (Build Executor)?

- An 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 one of the basic building blocks which allow a build to run on a node/agent (e.g. build server). Think of an executor as a single "process ID", or as the basic unit of resource that Jenkins executes on your machine to run a build.

### 3- Explain Jenkins master-slave architecture ?

#### Jenkins Master

Your main Jenkins server is the Master. The Master's job is to handle:

- Scheduling build jobs.
- Dispatching builds to the slaves for the actual execution.
- Monitor the slaves (possibly taking them online and offline as required).
- Recording and presenting the build results.
- A Master instance of Jenkins can also execute build jobs directly.

#### Jenkins Slave

A Slave is a Java executable that runs on a remote machine. Following are the characteristics of Jenkins Slaves:

- It hears requests from the Jenkins Master instance.
- Slaves can run on a variety of operating systems.
- The job of a Slave is to do as they are told to, which involves executing build jobs dispatched by the Master.
- You can configure a project to always run on a particular Slave machine or a particular type of Slave machine, or simply let Jenkins pick the next available Slave.

#### 4- Install jenkins with docker image ?

