

## Experiment No. 6

### Procedure :

Step 1 : TCP port for inbound agents is set to random.

Dashboards > Manage Jenkins > Security

Markup Formatter ?

Plain text

Shows descriptions mostly as written. HTML unsafe characters like < and & are escaped to their respective character entities, and line breaks are converted to their HTML equivalent.

Agents

TCP port for inbound agents ?

☐ Fixed

☒ Random

☐ Disable

Agent protocols

Save

Apply

Step 2 : Click on new node.

**Jenkins**

Yash Doke
log out

Dashboard > Manage Jenkins > Nodes >

Nodes

Clouds

Build Queue

No builds in the queue.

Build Executor Status

1 idle

2 idle

## Nodes

+ New Node
Configure Monitors

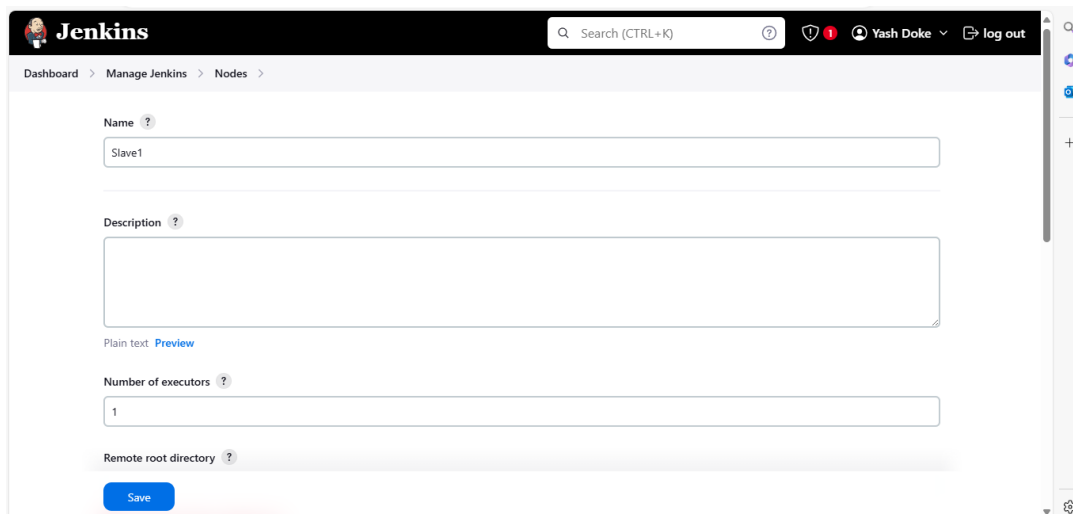
S	Name	Architecture	Clock Difference	Free Disk Space	Free Swap Space	Free Temp Space	Response Time
	Built-In Node	Windows 11 (amd64)	In sync	155.95 GiB	6.92 GiB	155.95 GiB	0ms
Data obtained		27 min	27 min	27 min	27 min	27 min	27 min

Icon: S M L

Legend

REST API Jenkins 2.462.1

Step 3 : Enter slave node name.



The screenshot shows the Jenkins web interface at the 'Manage Jenkins > Nodes' path. The 'Name' field is filled with 'Slave1'. The 'Description' field is empty. The 'Number of executors' is set to '1'. The 'Remote root directory' field is empty. A 'Save' button is at the bottom left. The top navigation bar includes a search bar, a user profile for 'Yash Doke', and a 'log out' link. The right sidebar contains various utility icons.

Jenkins

Search (CTRL+K)

Yash Doke log out

Dashboard > Manage Jenkins > Nodes >

Name ?

Slave1

Description ?

Plain text [Preview](#)

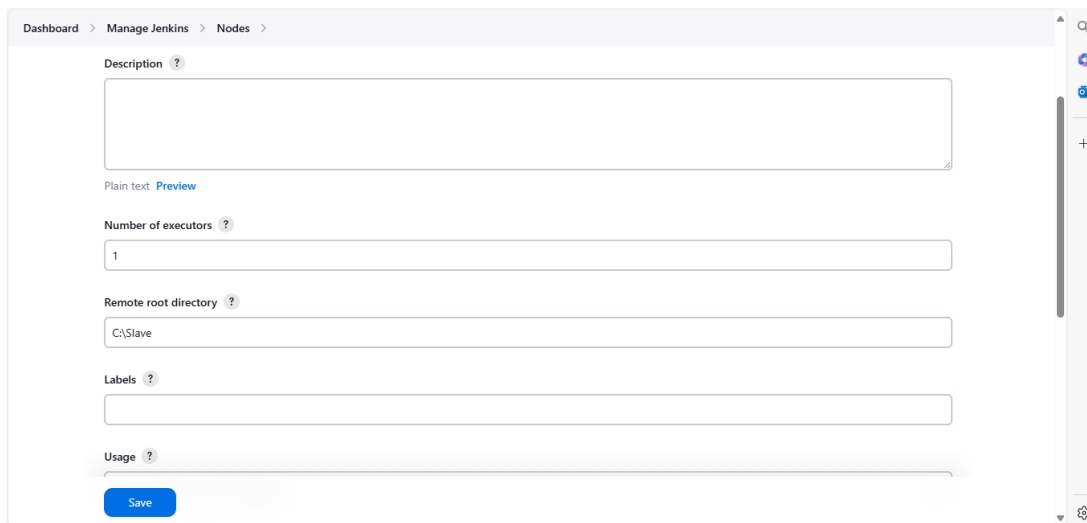
Number of executors ?

1

Remote root directory ?

Save

Step 4 : Create a new folder and set it as directory.



This screenshot shows the same Jenkins configuration page as Step 3, but with additional fields filled out. The 'Remote root directory' field now contains 'C:\Slave'. The 'Labels' and 'Usage' fields are empty. The 'Save' button remains at the bottom left. The interface elements like the top navigation bar and right sidebar are consistent with the previous screenshot.

Dashboard > Manage Jenkins > Nodes >

Description ?

Plain text [Preview](#)

Number of executors ?

1

Remote root directory ?

C:\Slave

Labels ?

Usage ?

Save

## Step 5 : Set the properties and save.

The screenshot shows the Jenkins 'Nodes' configuration page for a node named 'Slave1'. The breadcrumb navigation at the top is 'Dashboard > Manage Jenkins > Nodes > Slave1'. The page has three dropdown menus: 'Usage' set to 'Use this node as much as possible', 'Launch method' set to 'Launch agent by connecting it to the controller', and 'Availability' set to 'Keep this agent online as much as possible'. Below these is a section titled 'Node Properties' with four unchecked checkboxes: 'Disable deferred wipeout on this node', 'Disk Space Monitoring Thresholds', 'Environment variables', and 'Tool Locations'. A blue 'Save' button is at the bottom left. On the right, there is a vertical toolbar with icons for search, help, and other actions.

## Step 6 : Copy the command for command line.

The screenshot shows the Jenkins 'Agent Slave1' configuration page. The breadcrumb navigation is 'Dashboard > Manage Jenkins > Nodes > Slave1'. The page title is 'Agent Slave1'. There are two tabs: 'Status' (active) and 'Add description'. A 'Mark this node temporarily offline' button is also present. On the left, there is a sidebar with links: 'Delete Agent', 'Configure', 'Build History', 'Load Statistics', and 'Log'. Below the sidebar is a 'Build Executor Status' section showing '1 Idle'. The main content area has three sections for command lines: 'Run from agent command line: (Unix)', 'Run from agent command line: (Windows)', and 'Or run from agent command line, with the secret stored in a file: (Unix)'. Each section contains a code block with the respective command lines. A 'Copy' button is visible next to the Unix command line.

```
curl -sO http://localhost:8080/jnlpJars/agent.jar
java -jar agent.jar -url http://localhost:8080/ -secret
ce7da0feedbdfdc9452327ca86f1d123b6a5bad723b76efc26abb0ca7451ec0 -name Slave1 -workDir "C:\Slave"
```

```
curl.exe -sO http://localhost:8080/jnlpJars/agent.jar
java -jar agent.jar -url http://localhost:8080/ -secret
ce7da0feedbdfdc9452327ca86f1d123b6a5bad723b76efc26abb0ca7451ec0 -name Slave1 -workDir "C:\Slave"
```

```
echo ce7da0feedbdfdc9452327ca86f1d123b6a5bad723b76efc26abb0ca7451ec0 > secret-file
curl -sO http://localhost:8080/jnlpJars/agent.jar
java -jar agent.jar -url http://localhost:8080/ -secret @secret-file -name Slave1 -workDir "C:\Slave"
```

Step 7 : Run the command in cmd, then slave node should be visible.

The screenshot shows the Jenkins 'Nodes' page. On the left, there's a sidebar with 'Nodes' and 'Clouds' sections. The 'Nodes' section shows a 'Build Queue' with no builds and a 'Build Executor Status' section with 'Built-In Node' (1 Idle) and 'Slave1' (1 Idle). The main area displays a table of nodes:

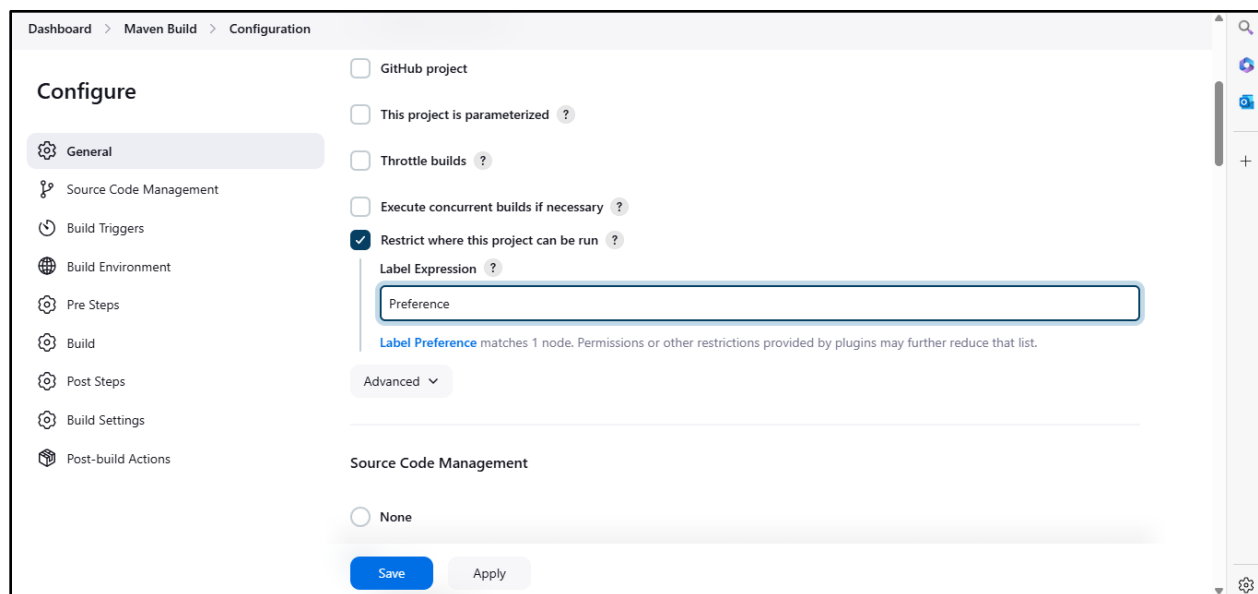
S	Name	Architecture	Clock Difference	Free Disk Space	Free Swap Space	Free Temp Space	Response Time
	Built-In Node	Windows 11 (amd64)	In sync	155.11 GiB	4.26 GiB	155.11 GiB	0ms
	Slave1	Windows 11 (amd64)	In sync	155.11 GiB	4.21 GiB	155.11 GiB	91ms
Data obtained			8.6 sec	8.5 sec	8.5 sec	7.9 sec	8.5 sec

Below the table, there's a legend with icons for 'S', 'M', and 'L'. The bottom right corner shows 'REST API' and 'Jenkins 2.462.1'.

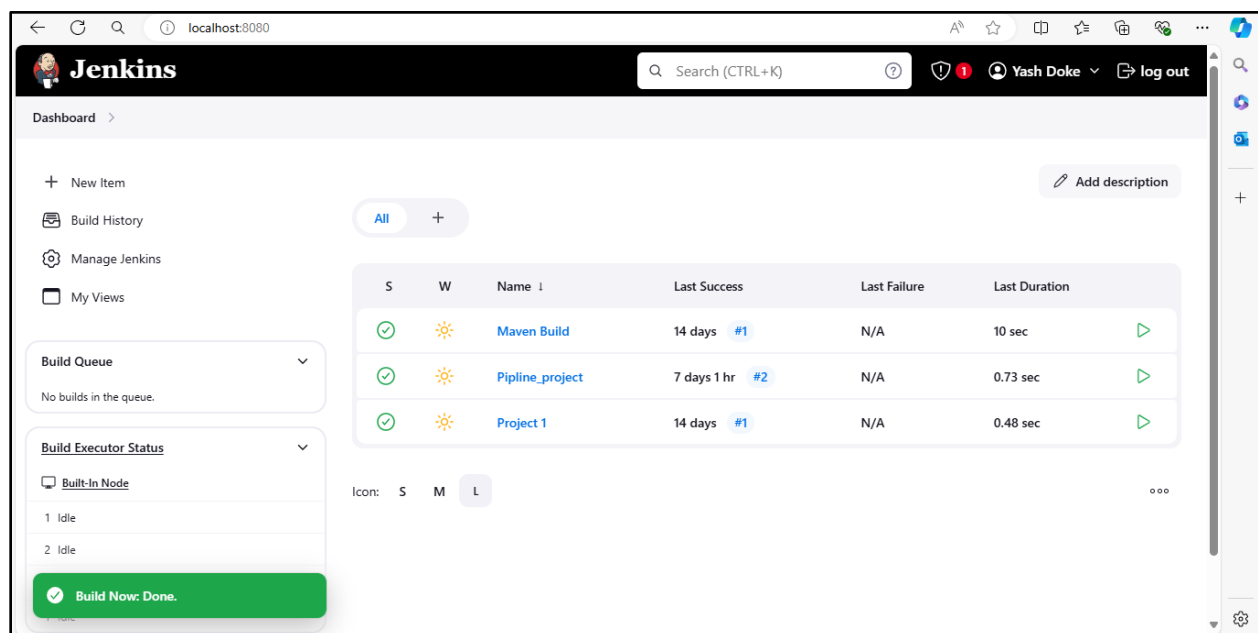
Step 8 : In slave node configuration, set labels as preference and save.

The screenshot shows the Jenkins 'Slave1 Configuration' page. The left sidebar has 'Script Console', 'Log', 'System Information', and 'Disconnect' options. The main area contains configuration fields: 'Number of executors' (1), 'Remote root directory' (C:\Slave), 'Labels' (preference), 'Usage' (Use this node as much as possible), and 'Launch method'. A 'Save' button is at the bottom.

Step 9 : In master node configuration, select the slave node label.



Step 10 : Build the master node.



## Step 11 : Build in progress.

The screenshot shows the Jenkins Dashboard with the following components:

- Left Sidebar:** Includes links for 'New Item', 'Build History', 'Manage Jenkins', and 'My Views'. Below these are two expandable sections: 'Build Queue' (showing 'No builds in the queue.') and 'Build Executor Status' (showing 'Built-In Node' with 2 idle executors and 'Slave1' with 1 build in progress, 'Maven Build').
- Main Content Area:** Features a table of recent builds and a filter icon.

S	W	Name	Last Success	Last Failure	Last Duration
✓	☀	Maven Build	14 days #1	N/A	10 sec
✓	☀	Pipeline_project	7 days 1 hr #2	N/A	0.73 sec
✓	☀	Project 1	14 days #1	N/A	0.48 sec

Icon: S M L

## Step 12 : Build is successful and slave node is visible.

The screenshot shows the Jenkins Dashboard with the following components:

- Header:** Includes the Jenkins logo, a search bar, and user information 'Yash Doke' with a 'log out' button.
- Left Sidebar:** Similar to Step 11, but the 'Build Executor Status' section now shows 'Built-In Node' with 2 idle executors and 'Slave1' with 1 build in progress, 'Maven Build'. A green banner at the bottom left says 'Build Now: Done.'.
- Main Content Area:** Features a table of recent builds and a filter icon.

S	W	Name	Last Success	Last Failure	Last Duration
✓	☀	Maven Build	14 days #1	N/A	10 sec
✓	☀	Pipeline_project	7 days 1 hr #2	N/A	0.73 sec
✓	☀	Project 1	14 days #1	N/A	0.48 sec

Icon: S M L