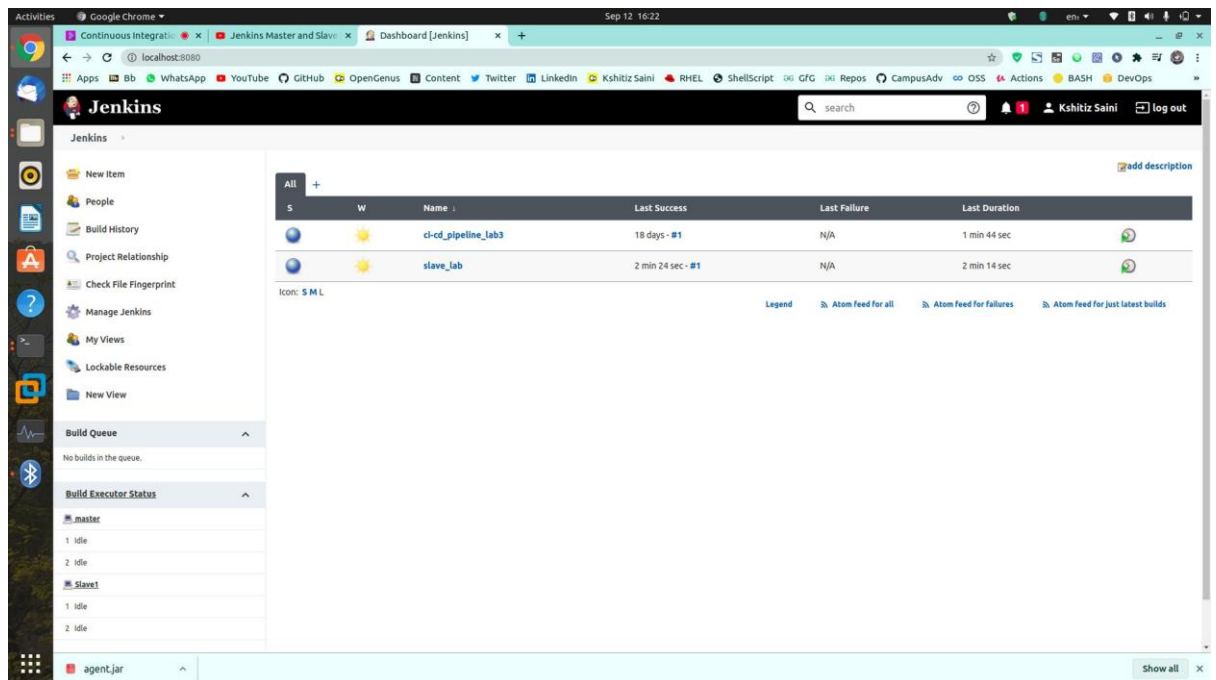


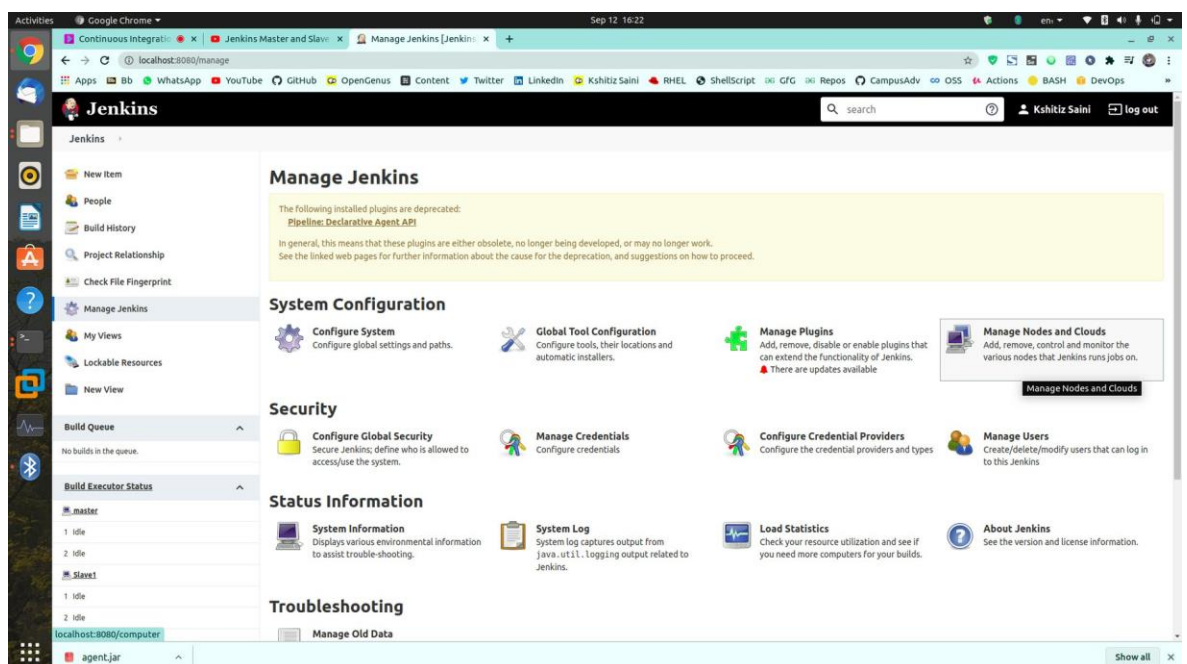
# Experiment 8

## Implementing Master/Slave Architecture

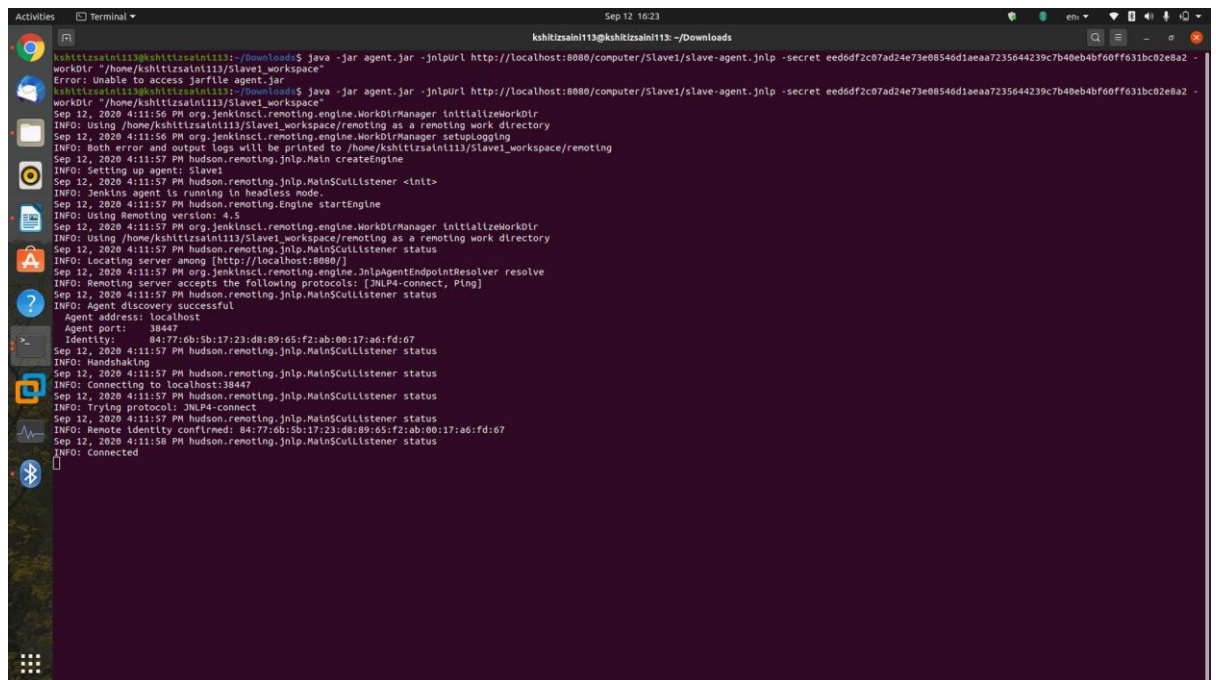
- 1) Launch Jenkins to setup a Master-Slave Architecture



- 2) Go to settings and use manage nodes and cloud settings under manage Jenkins options to create a new slave.



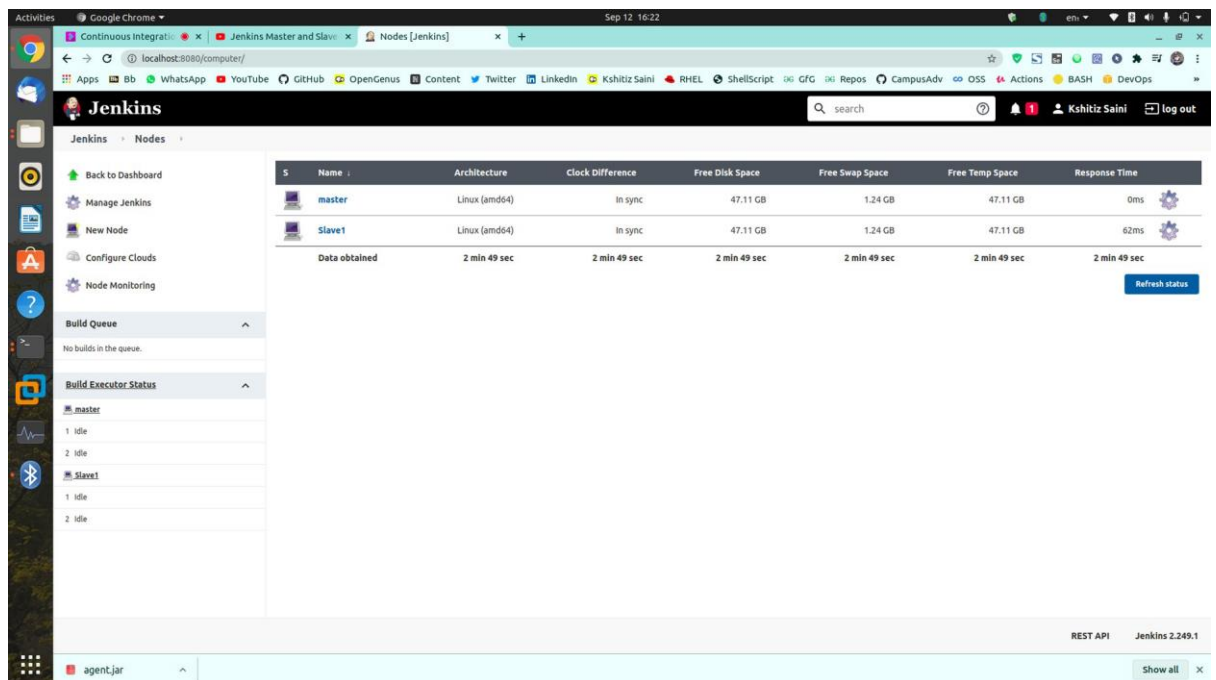
3) Run the slave node on the slave.



A terminal window showing the execution of the Jenkins agent command. The command is: `java -jar agent.jar -jnlpUrl http://localhost:8080/computer/Slave1/slave-agent.jnlp -secret eed6df2c07ad24e73e08546d1a6aa7235644239c7b40eb4bf60ff631bc02e8a2 -workDir "/home/kshitzsaini113/Slave1_workspace"`. The logs show the agent successfully connecting to the Jenkins master at localhost:8080.

```
kshitzsaini113@kshitzsaini113: ~/Downloads
kshitzsaini113@kshitzsaini113:~/Downloads$ java -jar agent.jar -jnlpUrl http://localhost:8080/computer/Slave1/slave-agent.jnlp -secret eed6df2c07ad24e73e08546d1a6aa7235644239c7b40eb4bf60ff631bc02e8a2 -workDir "/home/kshitzsaini113/Slave1_workspace"
Errors: Unable to access jarfile agent.jar
kshitzsaini113@kshitzsaini113:~/Downloads$ java -jar agent.jar -jnlpUrl http://localhost:8080/computer/Slave1/slave-agent.jnlp -secret eed6df2c07ad24e73e08546d1a6aa7235644239c7b40eb4bf60ff631bc02e8a2 -workDir "/home/kshitzsaini113/Slave1_workspace"
Sep 12, 2020 4:11:56 PM org.jenkinsci.remoting.engine.WorkDirManager initializeWorkDir
INFO: Using /home/kshitzsaini113/Slave1_workspace/remoting as a remoting work directory
Sep 12, 2020 4:11:56 PM org.jenkinsci.remoting.engine.WorkDirManager setupLogging
INFO: Both error and output logs will be printed to /home/kshitzsaini113/Slave1_workspace/remoting
Sep 12, 2020 4:11:57 PM hudson.remoting.jnlp.Main createEngine
INFO: Setting up agent: Slave1
Sep 12, 2020 4:11:57 PM hudson.remoting.jnlp.Main$CullListener <init>
INFO: Jenkins agent is running in headless mode.
Sep 12, 2020 4:11:57 PM hudson.remoting.Engine startEngine
INFO: Using Remoting version: 4.5
Sep 12, 2020 4:11:57 PM org.jenkinsci.remoting.engine.WorkDirManager initializeWorkDir
INFO: Using /home/kshitzsaini113/Slave1_workspace/remoting as a remoting work directory
Sep 12, 2020 4:11:57 PM hudson.remoting.jnlp.Main$CullListener status
INFO: Locating server among [http://localhost:8080/]
Sep 12, 2020 4:11:57 PM org.jenkinsci.remoting.engine.JnlpAgentEndpointResolver resolve
INFO: Remoting server accepts the following protocols: [JNLP4-connect, Ping]
Sep 12, 2020 4:11:57 PM hudson.remoting.jnlp.Main$CullListener status
INFO: Agent discovery successful
Agent address: localhost
Agent port: 38447
Identity: 84:77:6b:5b:17:23:d8:09:65:f2:ab:00:17:a6:fd:67
Sep 12, 2020 4:11:57 PM hudson.remoting.jnlp.Main$CullListener status
INFO: Handshaking
Sep 12, 2020 4:11:57 PM hudson.remoting.jnlp.Main$CullListener status
INFO: Connecting to localhost:38447
Sep 12, 2020 4:11:57 PM hudson.remoting.jnlp.Main$CullListener status
INFO: Trying protocol: JNLP4-connect
Sep 12, 2020 4:11:57 PM hudson.remoting.jnlp.Main$CullListener status
INFO: Remote identity confirmed: 84:77:6b:5b:17:23:d8:09:65:f2:ab:00:17:a6:fd:67
Sep 12, 2020 4:11:58 PM hudson.remoting.jnlp.Main$CullListener status
INFO: Connected
```

4) Run the project specifying the slave node.



A screenshot of the Jenkins web interface. The 'Nodes' page shows a table with columns: Name, Architecture, Clock Difference, Free Disk Space, Free Swap Space, Free Temp Space, and Response Time. The table lists two nodes: 'master' and 'Slave1', both with Linux (amd64) architecture and 'In sync' clock difference. Below the table, there is a 'Build Queue' section showing 'No builds in the queue.' and a 'Build Executor Status' section showing the status of executors for 'master' and 'Slave1'.

Name	Architecture	Clock Difference	Free Disk Space	Free Swap Space	Free Temp Space	Response Time
master	Linux (amd64)	In sync	47.11 GB	1.24 GB	47.11 GB	0ms
Slave1	Linux (amd64)	In sync	47.11 GB	1.24 GB	47.11 GB	62ms

Data obtained: 2 min 49 sec, 2 min 49 sec, 2 min 49 sec, 2 min 49 sec, 2 min 49 sec, 2 min 49 sec

Build Queue: No builds in the queue.

Build Executor Status:

- master: 1 idle, 2 idle
- Slave1: 1 idle, 2 idle

REST API: Jenkins 2.249.1