

## **Lab-6**

### **Job chaining in Jenkins**

#### **Task 1: Installation and Setup**

- Install Jenkins on your local machine or server. You can follow the instructions provided on the Jenkins website for installation.

#### **Task 2: Creating Jobs**

- Create multiple Jenkins jobs, such as Job1, Job2, and Job3, to simulate job chaining and sequential execution.

#### **Task 3: Configuring Job Dependencies**

- Configure the Job2 to be triggered automatically when Job1 is completed successfully.
- Configure the Job3 to be triggered automatically when Job2 is completed successfully.

#### **Task 4: Setting Up Build Triggers**

- Configure build triggers for each job to automatically trigger downstream jobs upon successful completion of the upstream jobs.

#### **Task 5: Defining Build Steps**

- Define the build steps for each job. You can use simple shell commands or execute complex build scripts depending on the requirements of each job.

#### **Task 6: Running the Jobs**

- Run the Job1 and verify that it triggers Job2 upon successful completion.
- Monitor the execution of Job2 and ensure it triggers Job3 upon successful

completion.

## Task 7: Viewing Console Output and Logs

- View the console output and logs of each job to understand the sequence of execution and any potential issues.

## Task 8: Cleanup

- Delete the jobs that were created during the exercise to clean up the Jenkins environment.

## Task 9: Documentation and Best Practices

- Document your findings and the best practices for implementing job chaining in Jenkins.

Through this exercise, you'll gain a better understanding of how to configure job chaining in Jenkins and effectively manage the execution of dependent jobs. Adjust the exercise based on your specific use case and requirements.

The screenshot shows the Jenkins Dashboard interface. The left sidebar contains navigation links: Build History, Manage Jenkins, My Views, Build Queue, and Build Executor Status. The main content area displays a table of jobs with columns for Status (S), Weather (W), Name, Last Success, Last Failure, and Last Duration. The table lists five jobs: Exp2, Job1, Job2, Job3, and Job4. Exp2 is the only job with a successful build, while the others are in a pending state. The bottom of the dashboard shows the REST API and Jenkins version (2.414.3).


S	W	Name	Last Success	Last Failure	Last Duration
✓	☀	Exp2	1 hr 17 min #1	N/A	6.7 sec
...	☀	Job1	N/A	N/A	N/A
...	☀	Job2	N/A	N/A	N/A
...	☀	Job3	N/A	N/A	N/A
...	☀	Job4	N/A	N/A	N/A

← → ↺ ⌂



localhost:8080/job/Job1/

🔖 ☆ ⚙️ 🖨️ 👤 ⋮


Xebia Academy: Lo... UPES Coursera Lear... devtown Devtown-Student advance.html [Jenkins] What is Containeriz... Java Tutorial | Learn... Introduction - Kode...


**Jenkins**


🔍 Search (CTRL+K) ⓘ


 2  1 👤 Aastha Mishra ▾ 📄 log out


Dashboard > Job1 >


 Status


 Changes

 Workspace

 Build Now

 Configure



 Delete Project

 Rename

☀️ **Build History** trend ^

📡 Atom feed for all 📡 Atom feed for failures

## Project Job1

 Add description  Disable Project

### Downstream Projects

✔️ Job2

### Permalinks


- Last build (#1), 26 sec ago
- Last stable build (#1), 26 sec ago
- Last successful build (#1), 26 sec ago
- Last completed build (#1), 26 sec ago

← → ↺ ⌂



localhost:8080/job/Job2/

🔖 ☆ ⚙️ 🖨️ 👤 ⋮


Xebia Academy: Lo... UPES Coursera Lear... devtown Devtown-Student advance.html [Jenkins] What is Containeriz... Java Tutorial | Learn... Introduction - Kode...


**Jenkins**


🔍 Search (CTRL+K) ⓘ


 2  1 👤 Aastha Mishra ▾ 📄 log out


Dashboard > Job2 >

 Workspace

 Build Now

 Configure

 Delete Project

 Rename

☀️ **Build History** trend ^

📡 Atom feed for all 📡 Atom feed for failures

## Upstream Projects

✔️ Job1

### Downstream Projects

✔️ Job3  
✔️ Job4

### Permalinks

- Last build (#1), 28 sec ago
- Last stable build (#1), 28 sec ago
- Last successful build (#1), 28 sec ago
- Last completed build (#1), 28 sec ago


REST API Jenkins 2.414.3

← → ↺ ⌂



localhost:8080/job/Job3/

🔖 ☆ ⚙️ 🖨️ 👤 ⋮


Xebia Academy: Lo... UPES Coursera Lear... devtown Devtown-Student advance.html [Jenkins] What is Containeriz... Java Tutorial | Learn... Introduction - Kode...


**Jenkins**


🔍 Search (CTRL+K) ⓘ


 2  1 👤 Aastha Mishra ▾ 📄 log out


Dashboard > Job3 >


 Changes

 Workspace

 Build Now

 Configure

 Delete Project

 Rename

☀️ **Build History** trend ^

📡 Atom feed for all 📡 Atom feed for failures

## Upstream Projects

✔️ Job2

### Downstream Projects

✔️ Job4

### Permalinks

- Last build (#1), 27 sec ago
- Last stable build (#1), 27 sec ago
- Last successful build (#1), 27 sec ago
- Last completed build (#1), 27 sec ago

REST API Jenkins 2.414.3

← → ↻ 🏠

localhost:8080/job/Job4/

🔖 ☆ ⚙️ 🖨️ 👤 ⋮

Xebia Academy: Lo... UPES Coursera Lear... devtown Devtown-Student advance.html [Jenkins] What is Containeriz... Java Tutorial | Learn... Introduction - Kode...

Dashboard > Job4 >

📄 Status

</> Changes

📁 Workspace

▶ Build Now

⚙️ Configure

🗑 Delete Project

✎ Rename

☀️ Build History trend ^

📡 Atom feed for all 📡 Atom feed for failures

Project Job4

✎ Add description

Disable Project

Upstream Projects

🟢 Job2  
🟢 Job3

Permalinks

- Last build (#2), 29 sec ago
- Last stable build (#2), 29 sec ago
- Last successful build (#2), 29 sec ago
- Last completed build (#2), 29 sec ago

REST API Jenkins 2.414.3

← → ↻ 🏠

localhost:8080

🔖 ☆ ⚙️ 🖨️ 👤 ⋮

Xebia Academy: Lo... UPES Coursera Lear... devtown Devtown-Student advance.html [Jenkins] What is Containeriz... Java Tutorial | Learn... Introduction - Kode...

Dashboard >

📁 Build History

⚙️ Manage Jenkins

📄 My Views

Build Queue

No builds in the queue.

Build Executor Status

1 Idle

2 Idle

S	W	Name ↕	Last Success	Last Failure	Last Duration
🟢	☀️	Exp2	1 hr 17 min #1	N/A	6.7 sec ▶
🟢	☀️	Job1	33 sec #1	N/A	3.4 sec ▶
🟢	☀️	Job2	24 sec #1	N/A	3.3 sec ▶
🟢	☀️	Job3	11 sec #1	N/A	2.1 sec ▶
🟢	☀️	Job4	4 sec #2	N/A	1.9 sec ▶

Icon: S M L Icon legend 📡 Atom feed for all 📡 Atom feed for failures 📡 Atom feed for just latest builds