

# **Lab Exercise 6–Job Chaining in Jenkins**

Below is a lab exercise that will help you understand and practice 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.

Dashboard > Job2 > Configuration

Configure

General

Source Code Management

Build Triggers

Build Environment

Build Steps

Post-build Actions

Additional Behaviours

Add

Build Triggers

☐ Trigger builds remotely (e.g., from scripts) ?

☒ Build after other projects are built ?

Projects to watch

Job1

Job1

☒ Trigger only if build is stable

☐ Trigger even if the build is unstable

☐ Trigger even if the build fails

☐ Always trigger, even if the build is aborted

Dashboard >

+ New Item

People

Build History

Manage Jenkins

My Views

Open Blue Ocean

Build Queue

No builds in the queue.

Build Executor Status

1 Idle

2 Idle

All +

| S   | W   | Name ↓    | Last Success | Last Failure   | Last Duration | Fav |
|-----|---|-----------|--------------|----------------|---------------|-----|
| W   | Description                               | %         |              | 1 hr 25 min #1 | 5.6 sec       | ▶ ☆ |
| ☀   | Build stability: No recent builds failed. | 100       |              | 49 min #2      | 6.6 sec       | ▶ ☆ |
| ✔ ☀ | Job1                                      | 40 sec #1 | N/A          | 2.1 sec        | ▶ ☆           |     |
| ✔ ☀ | Job2                                      | 30 sec #1 | N/A          | 2.9 sec        | ▶ ☆           |     |
| ✔ ☀ | Job3                                      | 17 sec #1 | N/A          | 1.5 sec        | ▶ ☆           |     |
| ✔ ☀ | Job4                                      | 10 sec #2 | N/A          | 2 sec          | ▶ ☆           |     |

Icon: S M L

Icon legend

Atom feed for all

Atom feed for failures

Atom feed for just latest builds

Add description

Jenkins

Search (CTRL+K)

Devesh Singh

Dashboard > Job1 >

Status

Changes

Workspace

Build Now

Configure

Delete Project

Favorite

Open Blue Ocean

Rename

Build History

trend

Filter builds...

#1 23-Oct-2023, 5:16 am

Project Job1

Downstream Projects

Job2

Permalinks

Last build (#1), 50 sec ago

Last stable build (#1), 50 sec ago

Last successful build (#1), 50 sec ago

Last completed build (#1), 50 sec ago

Jenkins

Search (CTRL+K)

Devesh

Dashboard > Job2 >

Status

Changes

Workspace

Build Now

Configure

Delete Project

Favorite

Open Blue Ocean

Rename

Build History

trend

Filter builds...

#1 23-Oct-2023, 5:16 pm

Project Job2

Upstream Projects

Job1

Downstream Projects

Job3

Job4

Permalinks

Last build (#1), 47 sec ago

Last stable build (#1), 47 sec ago

Last successful build (#1), 47 sec ago

Last completed build (#1), 47 sec ago

Jenkins

Search (CTRL+K)

Devesh S

Dashboard > Job3 >

Status

Changes

Workspace

Build Now

Configure

Delete Project

Favorite

Open Blue Ocean

Rename

Build History

trend

Filter builds...

#1 23-Oct-2023, 5:16 pm

Project Job3

Upstream Projects

Job2

Downstream Projects

Job4

Permalinks

Last build (#1), 41 sec ago

Last stable build (#1), 41 sec ago

Last successful build (#1), 41 sec ago

Last completed build (#1), 41 sec ago

Jenkins

Search (CTRL+K)

Devesh S

Dashboard > Job4 >

Status

Changes

Workspace

Build Now

Configure

Delete Project

Favorite

Open Blue Ocean

Rename

Build History

trend

Filter builds...

#2 23-Oct-2023, 5:16 pm

Project Job4

Upstream Projects

Job2

Job3

Permalinks

Last build (#2), 37 sec ago

Last stable build (#2), 37 sec ago

Last successful build (#2), 37 sec ago

Last completed build (#2), 37 sec ago