

Lab Exercise 6—Job Chaining in Jenkins

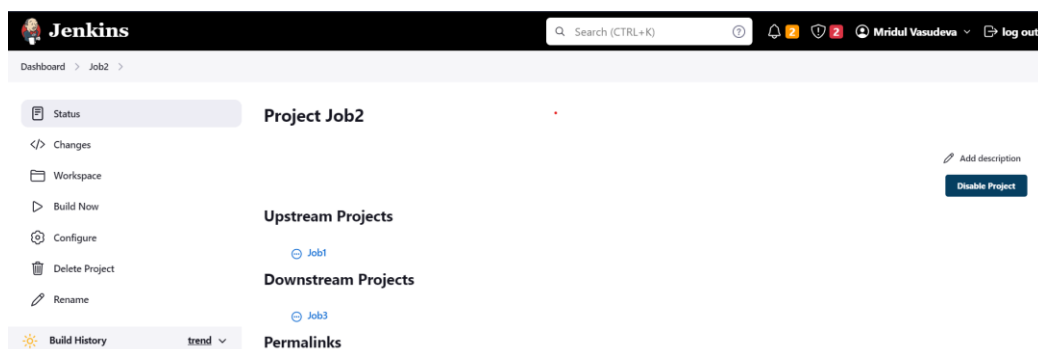
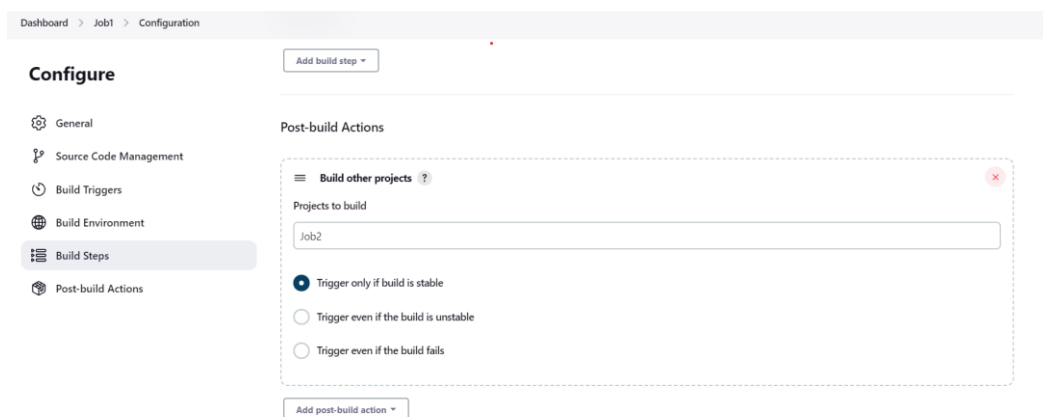
Below is a lab exercise that will help you understand and practice job chaining in Jenkins:

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.

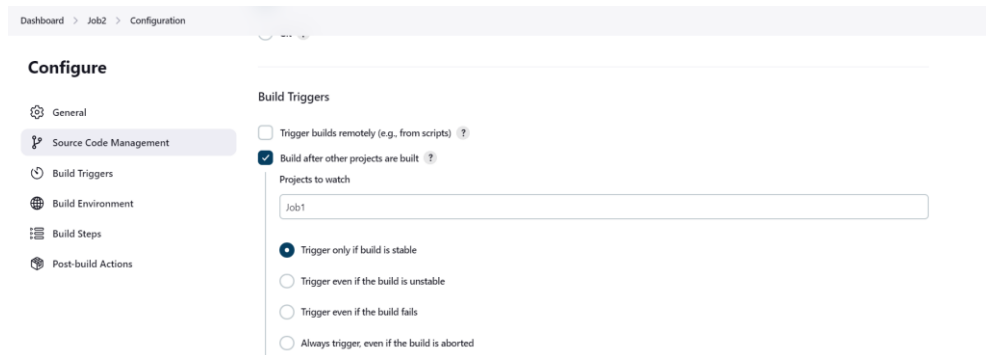
Task 2: Creating Jobs

- 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.



Dashboard > Job2 > Configuration

Configure

- General
- Source Code Management
- Build Triggers
- Build Environment
- Build Steps
- Post-build Actions

Build Triggers

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

☒ Build after other projects are built ?

Projects to watch

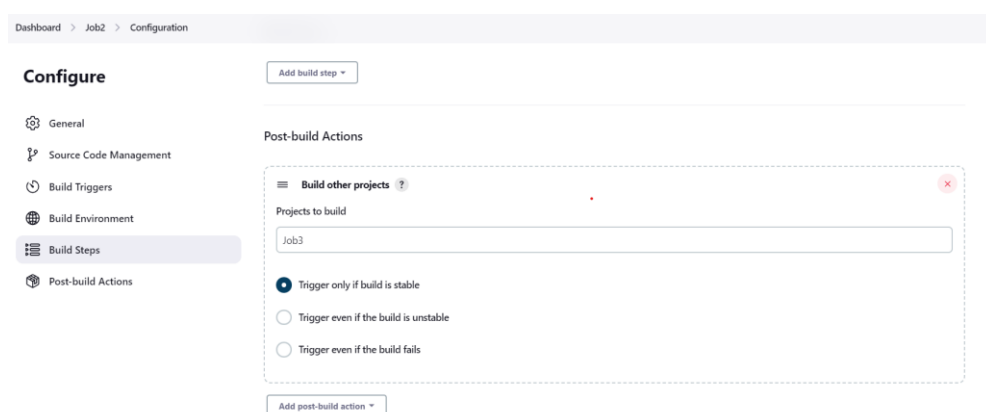
Job1

☒ 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 > Job2 > Configuration

Configure

Add build step +

- General
- Source Code Management
- Build Triggers
- Build Environment
- Build Steps
- Post-build Actions

Post-build Actions

Build other projects ?

Projects to build

Job3

☒ Trigger only if build is stable

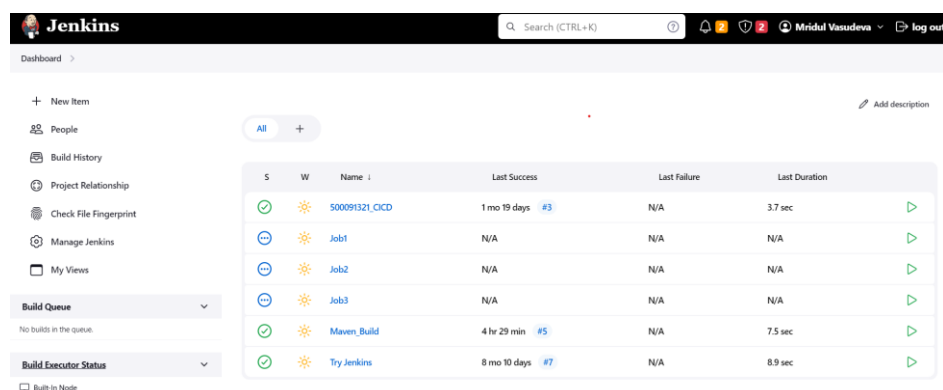
☐ Trigger even if the build is unstable

☐ Trigger even if the build fails

Add post-build action +

Task 3: 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.



Jenkins

Search (CTRL+K)

Dashboard >

+ New Item

People

Build History

Project Relationship

Check File Fingerprint

Manage Jenkins

My Views

Build Queue

No builds in the queue.

Build Executor Status

Build in Node

S	W	Name	Last Success	Last Failure	Last Duration
✓	☀	500091321_CI_CD	1 mo 19 days #3	N/A	3.7 sec
☹	☀	Job1	N/A	N/A	N/A
☹	☀	Job2	N/A	N/A	N/A
☹	☀	Job3	N/A	N/A	N/A
✓	☀	Maven_Build	4 hr 29 min #5	N/A	7.5 sec
✓	☀	Try Jenkins	8 mo 10 days #7	N/A	8.9 sec

Build Queue (1) ▼	
Job2	
<div></div>	
Build Queue (1) ▼	
Job3	

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 > Job1 >

Status

Changes

Workspace

Build Now

Configure

Delete Project

Rename

Build History trend ▼

Filter builds...

Project Job1

Add description

Disable Project

Downstream Projects

Job2

Permalinks

- Last build (#4), 1 min 27 sec ago
- Last stable build (#4), 1 min 27 sec ago
- Last successful build (#4), 1 min 27 sec ago
- Last completed build (#4), 1 min 27 sec ago

Dashboard > Job2 >

Status

Changes

Workspace

Build Now

Configure

Delete Project

Rename

Build History trend ▼

Filter builds...

#4

Oct 28, 2023, 12:59 AM

Project Job2

Add description

Disable Project

Upstream Projects

Job1

Downstream Projects

Job3

Permalinks

- Last build (#4), 1 min 48 sec ago
- Last stable build (#4), 1 min 48 sec ago
- Last successful build (#4), 1 min 48 sec ago
- Last completed build (#4), 1 min 48 sec ago

Dashboard > Job3 >

Status

Changes

Workspace

Build Now

Configure

Delete Project

Rename

Build History trend ▼

Filter builds...

Project Job3

Add description

Disable Project

Upstream Projects

Job2

Permalinks

- Last build (#5), 2 min 9 sec ago
- Last stable build (#5), 2 min 9 sec ago
- Last successful build (#5), 2 min 9 sec ago
- Last completed build (#5), 2 min 9 sec ago