

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.

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.

✓	☀	JOB1	19 hr	#1	N/A	16 sec	▶
✓	☀	JOB2	19 hr	#1	N/A	15 sec	▶
✓	☀	JOB3	19 hr	#1	N/A	11 sec	▶
✓	☀	JOB4	19 hr	#1	N/A	14 sec	▶

Dashboard > JOB1 >

Status

</> Changes

Workspace

Build Now

Configure

Delete Maven project

Modules

GitHub

Rename

Build History trend

Maven project JOB1

Latest Test Result (no failures)

Downstream Projects

JOB2

Permalinks

- Last build (#1), 19 hr ago
- Last stable build (#1), 19 hr ago
- Last successful build (#1), 19 hr ago
- Last completed build (#1), 19 hr ago

Add description

Disable Project

Test Result Trend

Passed

Skipped

Failed

1

0.5

#1

- Status
- Changes
- Workspace
- Build Now
- Configure
- Delete Maven project
- Modules
- GitHub
- Rename

Build Historytrend

Filter builds... /

#1
Oct 25, 2023, 9:27 PM

Maven project JOB2

Latest Test Result (no failures)

Upstream Projects

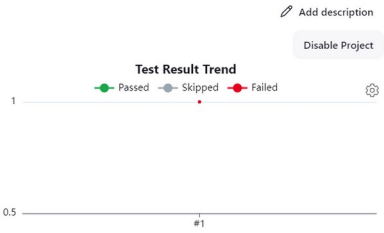
JOB1

Downstream Projects

JOB3
JOB4

Permalinks

- Last build (#1), 19 hr ago
- Last stable build (#1), 19 hr ago
- Last successful build (#1), 19 hr ago
- Last completed build (#1), 19 hr ago



- Status
- Changes
- Workspace
- Build Now
- Configure
- Delete Maven project
- Modules
- GitHub
- Rename

Build Historytrend

Filter builds... /

#1

Maven project JOB3

Latest Test Result (no failures)

Upstream Projects

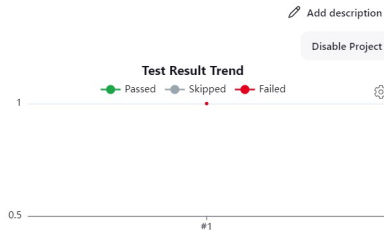
JOB2

Downstream Projects

JOB4

Permalinks

- Last build (#1), 19 hr ago
- Last stable build (#1), 19 hr ago
- Last successful build (#1), 19 hr ago
- Last completed build (#1), 19 hr ago



- Status
- Changes
- Workspace
- Build Now
- Configure
- Delete Maven project
- Modules
- GitHub
- Rename

Build Historytrend

Filter builds... /

#1
Oct 25, 2023, 9:31 PM

Maven project JOB4

Latest Test Result (no failures)

Upstream Projects

JOB2
JOB3

Permalinks

- Last build (#1), 19 hr ago
- Last stable build (#1), 19 hr ago
- Last successful build (#1), 19 hr ago
- Last completed build (#1), 19 hr ago



```
[INFO] --- jar:3.2.0:jar (default-jar) @ calc ---
[INFO] Building jar: C:\ProgramData\Jenkins\jenkins\workspace\JOB2\target\calc-1.0-SNAPSHOT.jar
[INFO] --- install:2.5.2:install (default-install) @ calc ---
[INFO] Installing C:\ProgramData\Jenkins\jenkins\workspace\JOB2\target\calc-1.0-SNAPSHOT.jar to
C:\windows\system32\config\systemprofile\.m2\repository\com\example\calc\1.0-SNAPSHOT\calc-1.0-SNAPSHOT.jar
[INFO] Installing C:\ProgramData\Jenkins\jenkins\workspace\JOB2\pom.xml to
C:\windows\system32\config\systemprofile\.m2\repository\com\example\calc\1.0-SNAPSHOT\calc-1.0-SNAPSHOT.pom
[WARNING] Attempt to (de-)serialize anonymous class org.jfrog.hudson.maven2.MavenDependenciesRecorder$1; see:
https://jenkins.io/redirect/serialization-of-anonymous-classes/
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 7.273 s
[INFO] Finished at: 2023-10-26T17:15:19+05:30
[INFO] -----
Waiting for Jenkins to finish collecting data
[JENKINS] Archiving C:\ProgramData\Jenkins\jenkins\workspace\JOB2\pom.xml to com.example\calc\1.0-SNAPSHOT\calc-1.0-SNAPSHOT.pom
[JENKINS] Archiving C:\ProgramData\Jenkins\jenkins\workspace\JOB2\target\calc-1.0-SNAPSHOT.jar to com.example\calc\1.0-SNAPSHOT\calc-1.0-SNAPSHOT.jar
channel stopped
Triggering a new build of JOB4
Triggering a new build of JOB3
Finished: SUCCESS
```

```
[INFO]
[JENKINS] Recording test results
[INFO] --- jar:3.2.0:jar (default-jar) @ calc ---
[INFO] Building jar: C:\ProgramData\Jenkins\jenkins\workspace\JOB3\target\calc-1.0-SNAPSHOT.jar
[INFO] --- install:2.5.2:install (default-install) @ calc ---
[INFO] Installing C:\ProgramData\Jenkins\jenkins\workspace\JOB3\target\calc-1.0-SNAPSHOT.jar to
C:\windows\system32\config\systemprofile\.m2\repository\com\example\calc\1.0-SNAPSHOT\calc-1.0-SNAPSHOT.jar
[INFO] Installing C:\ProgramData\Jenkins\jenkins\workspace\JOB3\pom.xml to
C:\windows\system32\config\systemprofile\.m2\repository\com\example\calc\1.0-SNAPSHOT\calc-1.0-SNAPSHOT.pom
[WARNING] Attempt to (de-)serialize anonymous class org.jfrog.hudson.maven2.MavenDependenciesRecorder$1; see:
https://jenkins.io/redirect/serialization-of-anonymous-classes/
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 12.341 s
[INFO] Finished at: 2023-10-26T17:14:56+05:30
[INFO] -----
Waiting for Jenkins to finish collecting data
[JENKINS] Archiving C:\ProgramData\Jenkins\jenkins\workspace\JOB3\pom.xml to com.example\calc\1.0-SNAPSHOT\calc-1.0-SNAPSHOT.pom
[JENKINS] Archiving C:\ProgramData\Jenkins\jenkins\workspace\JOB3\target\calc-1.0-SNAPSHOT.jar to com.example\calc\1.0-SNAPSHOT\calc-1.0-SNAPSHOT.jar
channel stopped
Triggering a new build of JOB4
Triggering a new build of JOB2
Finished: SUCCESS
```

Status

Changes

Console Output

Edit Build Information

Delete build '#5'

Git Build Data

Test Result

Redeploy Artifacts

See Fingerprints


Build Artifacts As Maven Repository

Previous Build

Next Build


 **Build #5 (Oct 26, 2023, 5:16:17 PM)**

Keep this build forever


 Add description

Started 56 sec ago
Took **11 sec** on built-in

 No changes.

 Started by upstream project [JOB2](#) build number [3](#)
originally caused by:

- Started by upstream project [JOB3](#) build number [3](#)
originally caused by:
 - Started by upstream project [JOB2](#) build number [2](#)
originally caused by:
 - Started by upstream project [JOB3](#) build number [2](#)
originally caused by:
 - Started by user [Raghav Sharma](#)

 **Revision:** c572a66630dd09e2936527f967c7b7d6fcb949c0
Repository: <https://github.com/royalkingzeher/jenkinsLab-1-2.git>

- refs/remotes/origin/main

 **Test Result** (no failures)

