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.

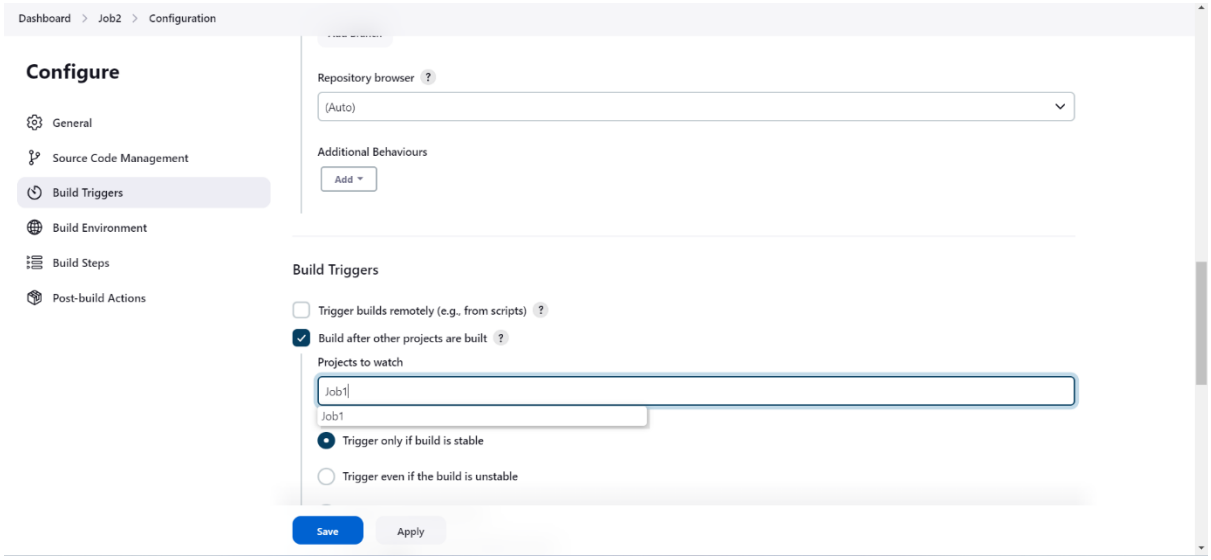
Task 8: Cleanup

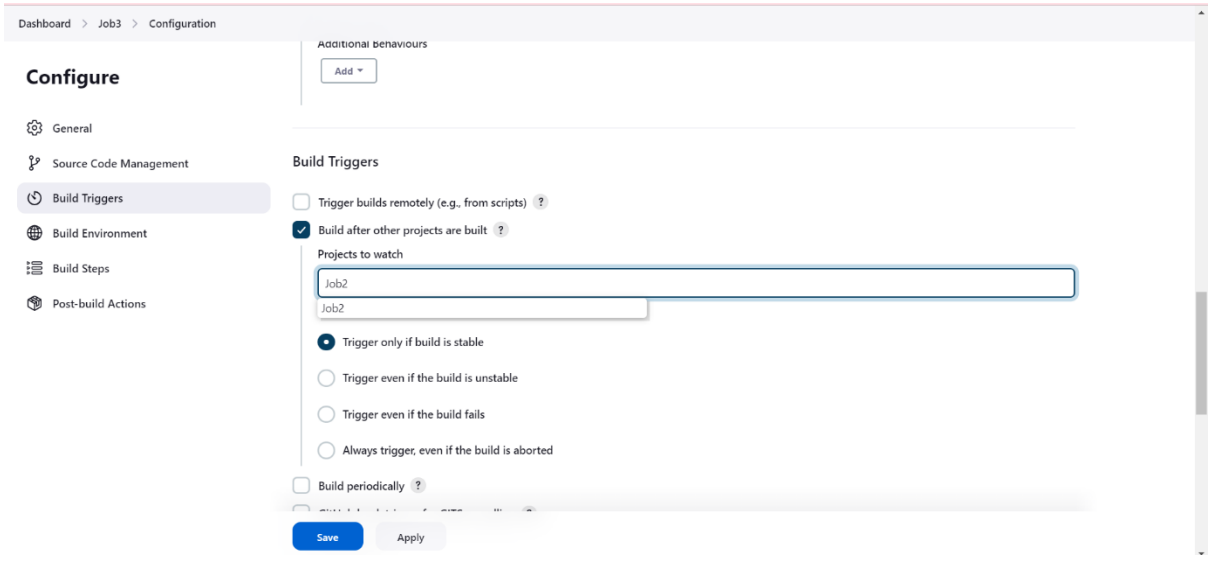
- Delete the jobs that were created during the exercise to clean up the Jenkins environment.

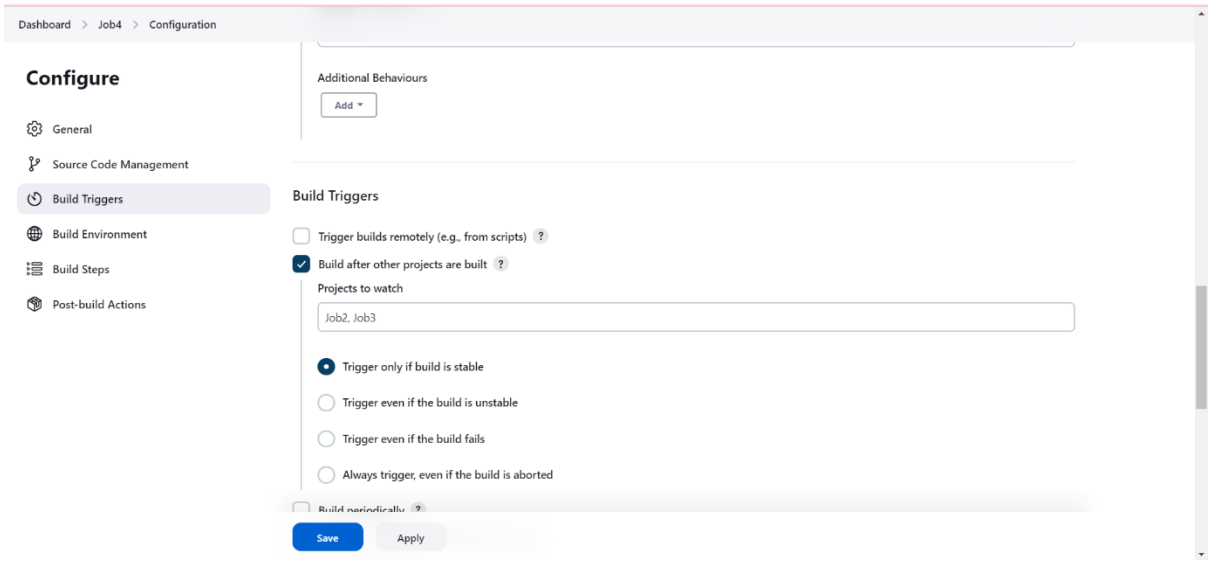
Task 9: Documentation and Best Practices

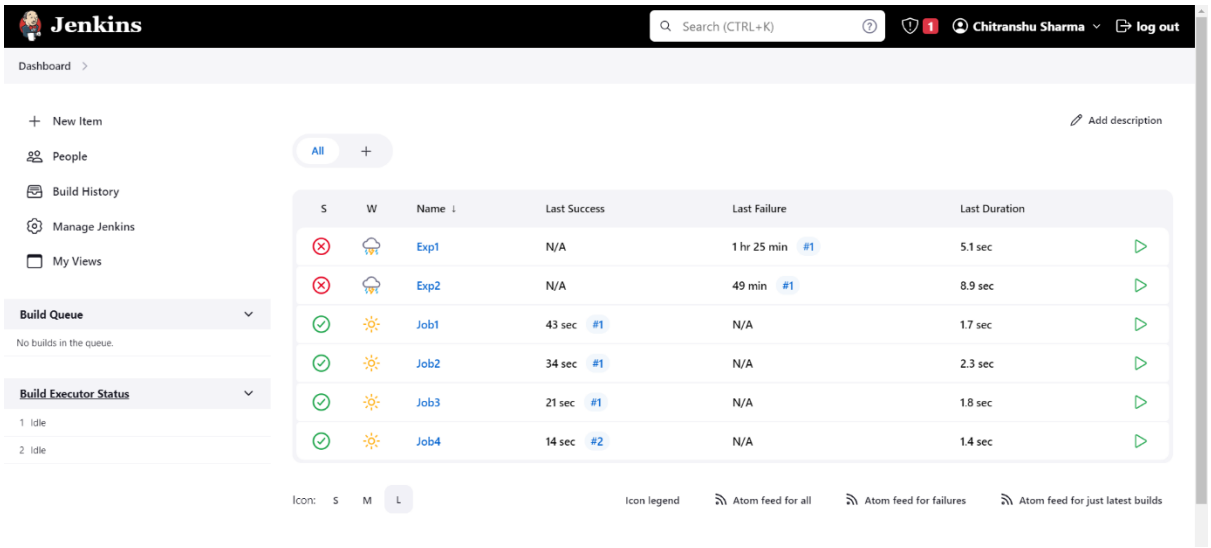
- Document your findings and the best practices for implementing job chaining in Jenkins.

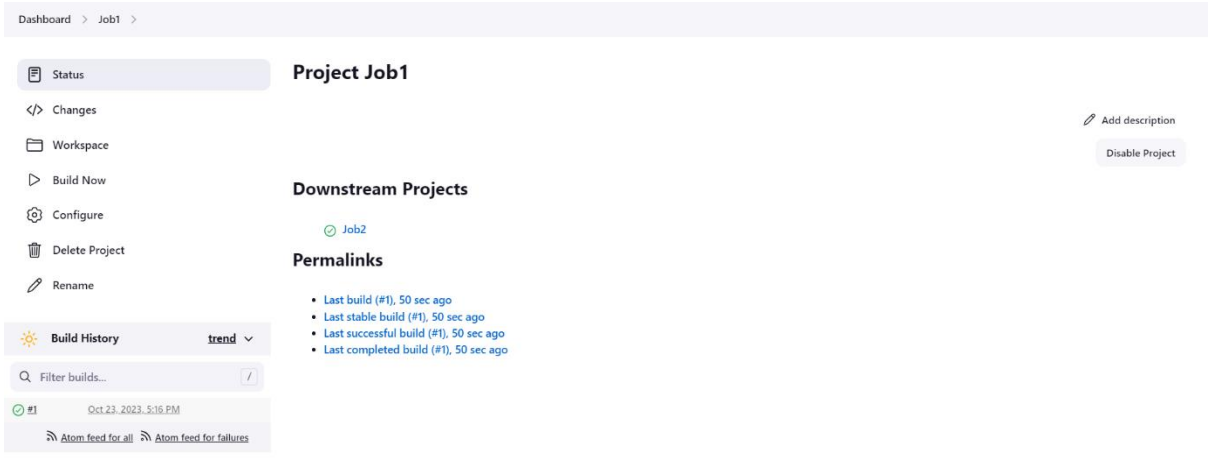
Through this exercise, you'll gain a better understanding of how to configure job chaining in Jenkins and effectively manage the execution of dependent jobs. Adjust the exercise based on your specific use case and requirements.

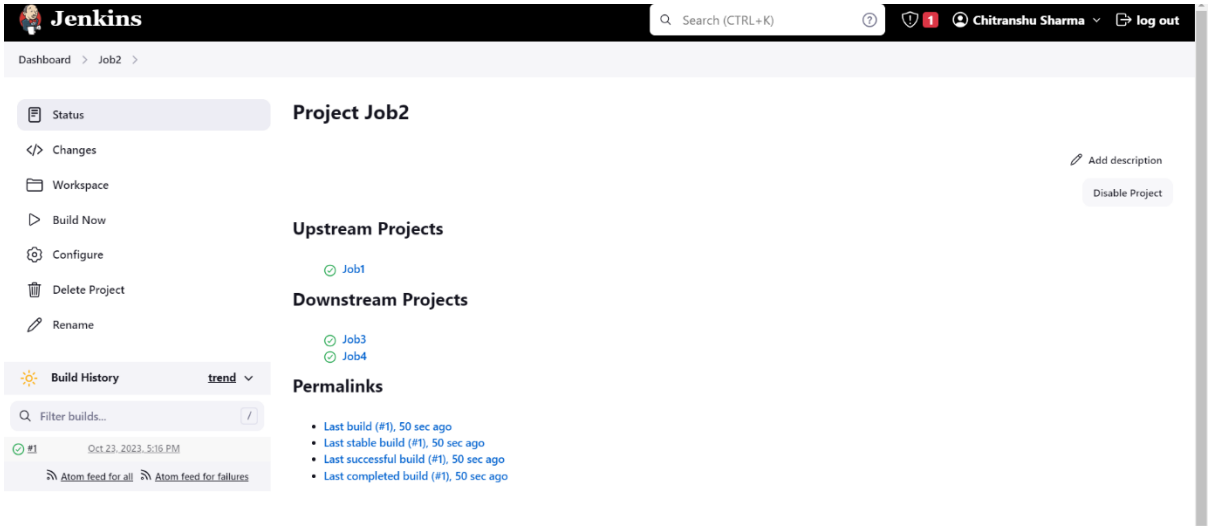


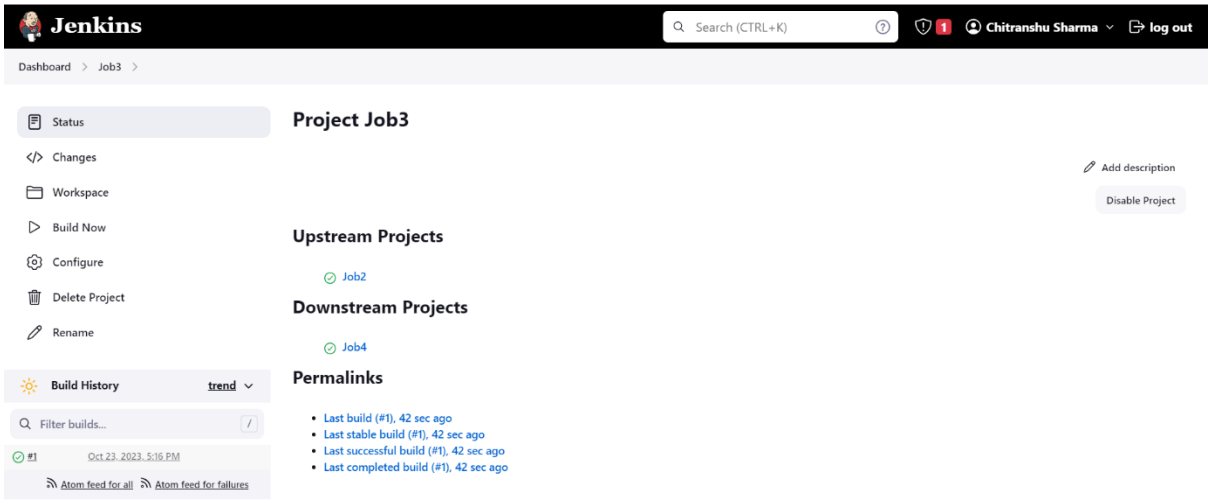


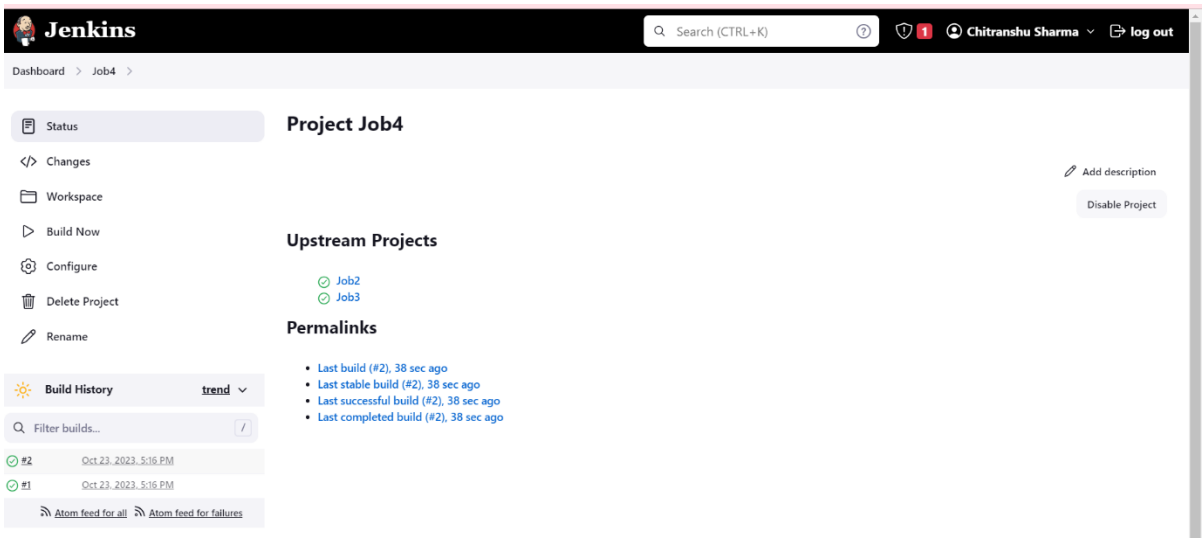

Dashboard > Job4 > Configuration
Configure
General
Source Code Management
Build Triggers
Build Environment
Build Steps
Post-build Actions
Additional Behaviours
Add
Build Triggers
Trigger builds remotely (e.g., from scripts)
Build after other projects are built
Projects to watch
Job2, Job3
Trigger only 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
Save
Apply


Jenkins
Search (CTRL+K)
Chitranshu Sharma
log out
Dashboard
New Item
People
Build History
Manage Jenkins
My Views
Build Queue
No builds in the queue.
Build Executor Status
1 Idle
2 Idle
Add description
All
S
W
Name
Last Success
Last Failure
Last Duration
Exp1 N/A 1 hr 25 min #1 5.1 sec
Exp2 N/A 49 min #1 8.9 sec
Job1 43 sec #1 N/A 1.7 sec
Job2 34 sec #1 N/A 2.3 sec
Job3 21 sec #1 N/A 1.8 sec
Job4 14 sec #2 N/A 1.4 sec
Icon: S M L
Icon legend
Atom feed for all
Atom feed for failures
Atom feed for just latest builds


Dashboard > Job1 >
Status
Changes
Workspace
Build Now
Configure
Delete Project
Rename
Build History
trend
Filter builds...
#1
Oct 23, 2023, 5:16 PM
Atom feed for all
Atom feed for failures
Project Job1
Add description
Disable Project
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)
1
Chitranshu Sharma
log out
Dashboard > Job2 >
Status
Changes
Workspace
Build Now
Configure
Delete Project
Rename
Build History
trend
Filter builds...
#1
Oct 23, 2023, 5:16 PM
Atom feed for all
Atom feed for failures
Project Job2
Add description
Disable Project
Upstream Projects
Job1
Downstream Projects
Job3
Job4
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)
1
Chitranshu Sharma
log out
Dashboard > Job3 >
Status
Changes
Workspace
Build Now
Configure
Delete Project
Rename
Build History
trend
Filter builds...
#1
Oct 23, 2023, 5:16 PM
Atom feed for all
Atom feed for failures
Project Job3
Add description
Disable Project
Upstream Projects
Job2
Downstream Projects
Job4
Permalinks
Last build (#1), 42 sec ago
Last stable build (#1), 42 sec ago
Last successful build (#1), 42 sec ago
Last completed build (#1), 42 sec ago


Jenkins
Search (CTRL+K)
1
Chitranshu Sharma
log out
Dashboard > Job4 >
Status
Changes
Workspace
Build Now
Configure
Delete Project
Rename
Build History
trend
Filter builds...
#2
Oct 23, 2023, 5:16 PM
#1
Oct 23, 2023, 5:16 PM
Atom feed for all
Atom feed for failures
Project Job4
Add description
Disable Project
Upstream Projects
Job2
Job3
Permalinks
Last build (#2), 38 sec ago
Last stable build (#2), 38 sec ago
Last successful build (#2), 38 sec ago
Last completed build (#2), 38 sec ago