



CONTINUOUS INTEGRATION AND CONTINUOUS DEPLOYMENT LAB

Lab File
(2023-2024)

for

5th Semester

Submitted To

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EXPERIMENT 6

Job Chaining in Jenkins

Aim

To understand and practice job chaining in Jenkins.

Steps

1. Create a Maven Project pipeline E6J1

- Build History
- Project Relationship
- Check File Fingerprint
- Manage Jenkins

S	W	Name ↓	Last Success	Last Failure	Last Duration	
✓	☀	E6J1	34 sec #1	N/A	14 sec	▶

2. Create another pipeline E6J2

a. Choose Build Triggers > Build after other projects are built

- Build
- Post Steps
- Build Settings
- Post Build Actions

☒ Build after other projects are built ?

Projects to watch

E6J1

☒ Trigger only if build is stable

b. Previous job is now showing as Upstream Project in the new job

- Build Now
- Configure
- Delete Maven project
- Modules

Upstream Projects

✓ E6J1 ☀

Permalinks

3. Test the chain by building the first pipeline

- Build History
- Project Relationship
- Check File Fingerprint
- Manage Jenkins
- My Views

S	W	Name ↓	Last Success	Last Failure	Last Duration	
✓	☀	E6J1	31 sec #2	N/A	6.3 sec	▶
✓	☀	E6J2	16 sec #1	N/A	7.2 sec	▶

4. Create 2 more pipelines E6J3 and E6J4, creating a longer and branched chain

a. Add E6J2 as upstream in E6J3

Build Now

Configure

Delete Maven project

Modules

Fingerprint

Upstream Projects

E6J2

Downstream Projects

E6J4

b. Add E6J2 and E6J3 as upstream in E6J4

Build Now

Configure

Delete Maven project

Upstream Projects

E6J2

E6J3

5. Test the complete pipeline chain by running E6J1

Build History

Project Relationship

Check File Fingerprint

Manage Jenkins

My Views

Build Queue
No builds in the queue.

S	W	Name ↓	Last Success	Last Failure	Last Duration	
		E6J1	2 min 49 sec #3	N/A	5.7 sec	
		E6J2	2 min 34 sec #2	N/A	5.8 sec	
		E6J3	2 min 14 sec #1	N/A	10 sec	
		E6J4	1 min 54 sec #2	N/A	5.8 sec	

6. Checking logs

a. E6J1 triggered E6J2 once it succeeded

Console Output

```
ToolsQA/exp1-jenkins/1.0-SNAPSHOT/exp1-jenkins-1.0-SNAPSHOT.jar
channel stopped
Triggering a new build of E6J2
Finished: SUCCESS
```

b. Similarly others were also triggered

- E6J2 logs

Console Output


View as plain text

```
Started by upstream project "E6J1" build number 3
originally caused by:
  Started by user Ayush Singh Kushwah
```

```
channel stopped
Triggering a new build of E6J4
Triggering a new build of E6J3
Finished: SUCCESS
```

• E6J3 logs

Console Output

 View as plain text


 Edit Build Information

```
Started by upstream project "E6J2" build number 2
originally caused by:
  Started by upstream project "E6J1" build number 3
  originally caused by:
    Started by user Ayush Singh Kushwah
```

```
SNAPSHOT.jar to DevOps/CICD-EXP3/1.0-SNAPSHOT/CICD-EXP3-1.0-SNAPSHOT.jar
channel stopped
Triggering a new build of E6J4
Finished: SUCCESS
```

• E6J4 logs

Console Output

 View as plain text


 Edit Build Information

 Delete build '#2'

```
Started by upstream project "E6J3" build number 1
originally caused by:
  Started by upstream project "E6J2" build number 2
  originally caused by:
    Started by upstream project "E6J1" build number 3
    originally caused by:
      Started by user Ayush Singh Kushwah
```

```
[JENKINS] Archiving /var/jenkins_home/workspace/E6J4/target/my-calculator.jar to
DevOps/exp2-jenkins/1.0-SNAPSHOT/exp2-jenkins-1.0-SNAPSHOT.jar
channel stopped
Finished: SUCCESS
```

7. Cleaning up the jobs

 People

 Build History

 Project Relationship

Welcome to Jenkins!

This page is where your Jenkins jobs will be displayed. To get started, you can set up distributed builds or start building a software project.