

Experiment 6

Job Chaining in Jenkins

Aim

To understand and practice job chaining in Jenkins.

Steps

1. Create a Maven Project pipeline E6J1
2. Create another pipeline E6J2
 - a. Choose Build Triggers > Build after other projects are built

☒ 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

Upstream Projects

... E6J1

Permalinks

3. Test the chain by building the first pipeline

| | | | | |
|--|--|------|---------|----|
| | | E6J1 | 26 sec | #1 |
| | | E6J2 | 9.5 sec | #1 |

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

- Add E6J1, E6J2 as upstream in E6J3

Latest Test Result (no failures)

Upstream Projects

E6J1

E6J2

Downstream Projects

E6J4

Permalinks

- Add E6J1, E6J2 and E6J3 as upstream in E6J4

Latest Test Result (no failures)

Upstream Projects

E6J1








E6J2

E6J3

Permalinks

- Last build (#5), 1 min 35 sec ago
- Last stable build (#5), 1 min 35 sec ago
- Last successful build (#5), 1 min 35 sec ago

4. Test the complete pipeline chain by running E6J1

| | | | | |
|---|---|------|--------------|----|
|  |  | E6J1 | 3 min 19 sec | #3 |
|  |  | E6J2 | 3 min 0 sec | #3 |
|  |  | E6J3 | 2 min 42 sec | #3 |
|  |  | E6J4 | 2 min 27 sec | #5 |

5. Checking logs

a. E6J1 triggered other pipelines once it succeeded

```
[JENKINS] Archiving /var/lib/jenkins/w  
channel stopped  
Triggering a new build of E6J4  
Triggering a new build of E6J3  
Triggering a new build of E6J2  
Finished: SUCCESS
```

b. Similarly others were also triggered

i. E6J2 logs

```
[JENKINS] Archiving /var/lib/jenkins/w  
[JENKINS] Archiving /var/lib/jenkins/w  
channel stopped  
Triggering a new build of E6J4  
Triggering a new build of E6J3  
Finished: SUCCESS
```

ii. E6J3 logs

```
[INFO] -----  
Waiting for Jenkins to finish collectin  
[JENKINS] Archiving /var/lib/jenkins/wo  
[JENKINS] Archiving /var/lib/jenkins/wo  
channel stopped  
Triggering a new build of E6J4  
Finished: SUCCESS
```

iii. E6J4 logs

```
[INFO] Finished at: 2023-10-20 12:39:37  
[INFO] -----  
Waiting for Jenkins to finish collectin  
[JENKINS] Archiving /var/lib/jenkins/wo  
[JENKINS] Archiving /var/lib/jenkins/wo  
channel stopped  
Finished: SUCCESS
```

| | | |
|--------------------------------------|----------------------|----------------------|
| CICD-LAB-1 (automated-trigger-build) | [OBJ] | 3 days 16 hr |
| #6[OBJ] | 3 days 18 hr #1[OBJ] | 7.5 sec |
| CICD-LAB-2 (JENKINSFILE) | [OBJ] | N/A 31 min #6[OBJ] |
| | | 6.2 sec |
| CICD-LAB-5 (jojo) | [OBJ] | 28 min #3[OBJ] |
| | | N/A 14 sec |
| CICD-LAB-5 (stiffler) | [OBJ] | 32 min #2[OBJ] |
| | | N/A 32 sec |
| E6J1 | [OBJ] | 8 min 39 sec #3[OBJ] |
| | | N/A 5.6 sec |
| E6J2 | [OBJ] | 8 min 21 sec #3[OBJ] |
| | | N/A 5.9 sec |
| E6J3 | [OBJ] | 8 min 2 sec #3[OBJ] |
| | | N/A 8.2 sec |
| E6J4 | | CICD-LAB-1 |

(automated-trigger-build) [OBJ] 3 days 16 hr #6[OBJ] 3 days 18
hr #1[OBJ] 7.5 sec CICD-LAB-2 (JENKINSFILE) [OBJ] N/A
31 min #6[OBJ] 6.2 sec CICD-LAB-5 (jojo) [OBJ] 28 min
#3[OBJ] N/A 14 sec CICD-LAB-5 (stiffler) [OBJ] 32 min
#2[OBJ] N/A 32 sec E6J1 [OBJ] 8 min 39 sec #3[OBJ] N/A
5.6 sec E6J2 [OBJ] 8 min 21 sec #3[OBJ] N/A 5.9 sec
E6J3 [OBJ] 8 min 2 sec #3[OBJ] N/A 8.2 sec E6J4