

## Experiment No. 2.2

Student Name: **Rishav Kumar**

Branch: **MCA - CCD**

Semester: **III**

Subject Name: **DevOps Process Automation Lab**

UID: **22MCC20039**

Section/Group: **MCD-1/ Grp A**

Date of Performance: **26<sup>th</sup> Sep 23**

Subject Code: **22CAP-745**

### 1. Aim/Overview of the practical:

A. Write a Scripted Pipeline to execute the build pipeline with all the 9 goals of Maven.

B. Execute the Scripted Pipeline via Scripted Pipeline with SCM. Name the file as Jenkinsfile and build a pipeline.

### Code for practical:

#### A.

- Open Jenkins on localhost and login with your credentials.
- Go to **Manage Jenkins>Plugins** and install build pipeline plugin.
- Click on **New item > Pipeline**.
- Select **Definition > Pipeline script**
- Write pipeline script as follows.

```
jenkinsfile
1 pipeline {
2   agent any
3   tools {
4     maven 'mvn'
5   }
6   stages {
7     stage("Fetching") {
8       steps {
9         git branch: "master",
10          url: "https://github.com/Rishav518/java"
11       }
12     }
13     stage("Compile") {
14       steps {
15         bat 'mvn compile'
16       }
17     }
18     stage("Test"){
19       steps{
20         bat 'mvn test'
21       }
22     }
23     stage("Package"){
24       steps{
25         bat 'mvn package'
26       }
27     }
28     stage("Verify"){
29       steps{
30         bat 'mvn verify'
31       }
32     }
33     stage("Install"){
34       steps{
35         bat 'mvn install'
36       }
37     }
38   }
39 }
```

- Click on Save and Build now.
- Pipeline will be built in some moments.

### Stage View

	Declarative: Checkout SCM	Declarative: Tool Install	Fetching	Compile	Test	Package	Verify	Install
Average stage times: (Average full run time: ~44s)	3s	142ms	1s	4s	4s	4s	4s	5s
#24 Oct 04 13:21 1 commit	2s	101ms	1s	3s	4s	4s	4s	6s
#23 Oct 04 13:20 No Changes								
#22 Oct 04 13:14 1 commit	5s	183ms	1s	4s	4s	4s	4s	4s
#21 Oct 04 13:13 No Changes								

## B.

- Open Jenkins on localhost and login with your credentials.
- Click on *New item* > *Pipeline*.
- Select *Definition* > *Pipeline script from SCM* > *Git*.
- Enter GitHub repository URL and select branch

Pipeline

Definition

Pipeline script from SCM

SCM ?

Git

Repositories ?

Repository URL ?

https://github.com/Rishav518/java

- Create a Jenkinsfile and paste scripted pipeline and commit to github.
- In script path add Jenkinsfile.



Script Path ?

jenkinsfile

☒ Lightweight checkout ?

[Pipeline Syntax](#)

Save

Apply

- Save pipeline and click on build now.
- Pipeline will be built in some moments.

The screenshot shows the Jenkins web interface. The top navigation bar includes the Jenkins logo, a search bar, and user information (Rishav Kumar). The breadcrumb trail is Dashboard > Rishav Kumar > My Views > All > pipeline. The left sidebar contains a list of actions: Status (selected), Changes, Build Now, Configure, Delete Pipeline, Full Stage View, Rename, and Pipeline Syntax. The main content area is titled 'Pipeline pipeline' and includes an 'Add description' link and a 'Disable Project' button. Below this is the 'Stage View' table, which displays the execution history of the pipeline stages. The table has columns for stages: Declarative: Checkout SCM, Declarative: Tool Install, Fetching, Compile, Test, Package, Verify, and Install. Each row represents a build, with columns for build number, date, and commit status. The table shows that build #24 is the most recent, with a commit status of '1 commit'. The average stage times are displayed at the top of the table: Declarative: Checkout SCM (3s), Declarative: Tool Install (142ms), Fetching (1s), Compile (4s), Test (4s), Package (4s), Verify (4s), and Install (5s). The average full run time is ~44s.

	Declarative: Checkout SCM	Declarative: Tool Install	Fetching	Compile	Test	Package	Verify	Install
Average stage times: (Average full run time: ~44s)	3s	142ms	1s	4s	4s	4s	4s	5s
#24 Oct 04 13:21 1 commit	2s	101ms	1s	3s	4s	4s	4s	6s
#23 Oct 04 13:20 No Changes								
#22 Oct 04 13:14 1 commit	5s	183ms	1s	4s	4s	4s	4s	4s
#21 Oct 04 13:13 No Changes								

\*\*\*\*\* THE END \*\*\*\*\*