

Lab Exercise 20

Creating a Pipeline Script

PART 2

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Objective: To create a pipeline script for automating build processes in Jenkins

Tools required: Jenkins

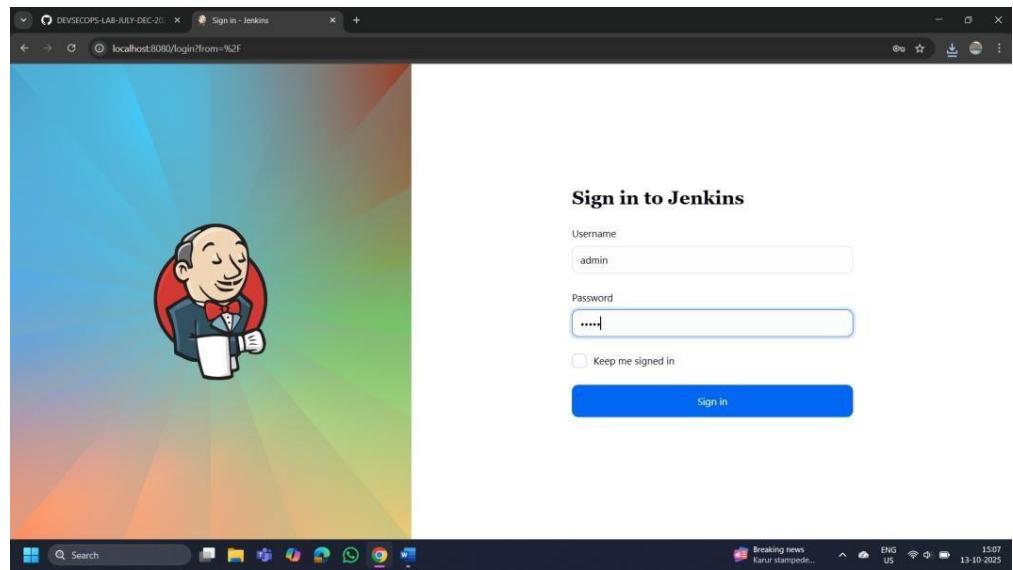
Prerequisites: None

Steps to be followed:

1. Log in to the Jenkins CI tool and create a pipeline script

Step 1: Log in to the Jenkins CI tool and create a pipeline script

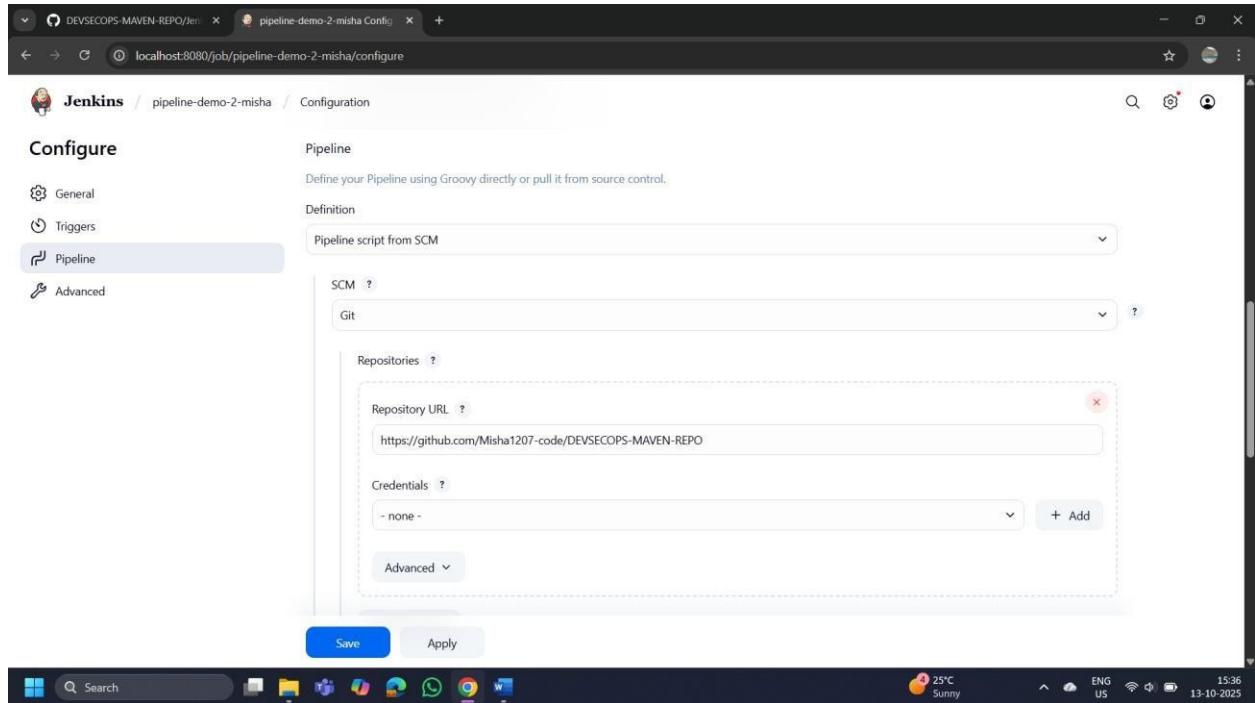
- 1.1. Open the browser, go to the Jenkins Dashboard by typing localhost:8080 in your browser, provide the credentials, and click the Sign in button



1.2.Click on the New Item option as shown in the screenshot below:

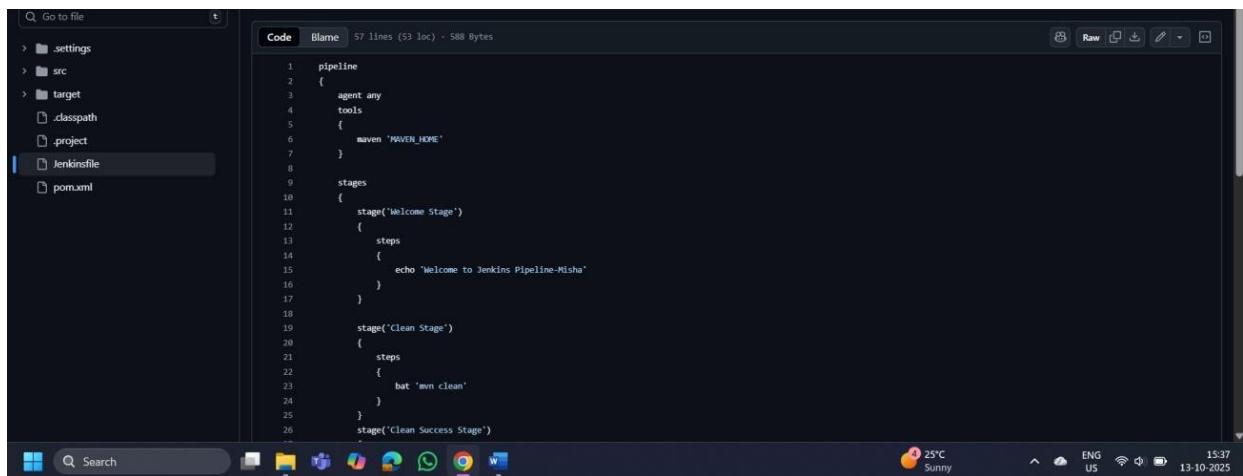
1.3.Enter a desired name for the project, select Pipeline, and then click on OK as shown in the screenshot below:

1.4.Click on Pipeline as shown in the screenshot below:



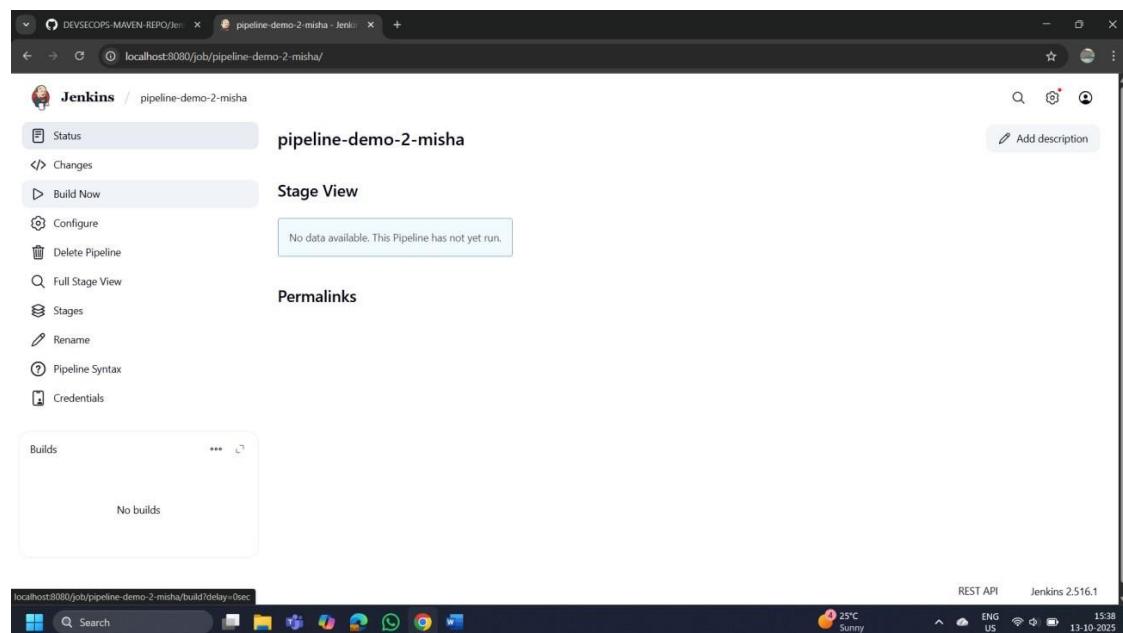
1.5.Enter the following pipeline script in the script editor and click on Save as shown in the screenshot below:
pipeline

```
{ ag
ent
any
stag
es
{
  stage("hello") {
    steps{
      echo"welcome to Jenkins pipeline"
    }
  }
}
```



```
1 pipeline
2 {
3     agent any
4     tools
5     {
6         maven 'MAVEN_HOME'
7     }
8     stages
9     {
10        stage('Welcome Stage')
11        {
12            steps
13            {
14                echo 'Welcome to Jenkins Pipeline-Misha'
15            }
16        }
17        stage('Clean Stage')
18        {
19            steps
20            {
21                bat 'mvn clean'
22            }
23        }
24    }
25    stage('Clean Success Stage')
26 }
```

1.6. Click on Build Now to run the pipeline script as shown in the screenshot below:



Jenkins / pipeline-demo-2-misha

Status pipeline-demo-2-misha

Build Now

Configure

Delete Pipeline

Full Stage View

Stages

Rename

Pipeline Syntax

Credentials

Stage View

No data available. This Pipeline has not yet run.

Permalinks

Builds

No builds

localhost:8080/job/pipeline-demo-2-misha/build?delay=0sec

REST API Jenkins 2.516.1

1.7.Hover over the milliseconds number next to the build stage name as shown in the screenshot below:

Declarative: Checkout SCM	Declarative: Tool Install	Welcome Stage	Clean Stage	Clean Success Stage	Build & Install Stage	Build Success	Final Success
2s	137ms	240ms	15s	214ms	16s	244ms	244ms
#3 Oct 13 15:41 No Changes	2s	137ms	240ms	15s	214ms	16s	244ms
#2 Oct 13 15:39 No Changes							
#1 Oct 13 15:39 No Changes							

Permalinks

- Last build (#2), 2 min 24 sec ago
- Last failed build (#2), 2 min 24 sec ago
- Last unsuccessful build (#2), 2 min 24 sec ago

After using POLL SCM method-

Jenkins / pipeline-demo-2-misha / Configuration

Configure

General Triggers Pipeline Advanced

Triggers

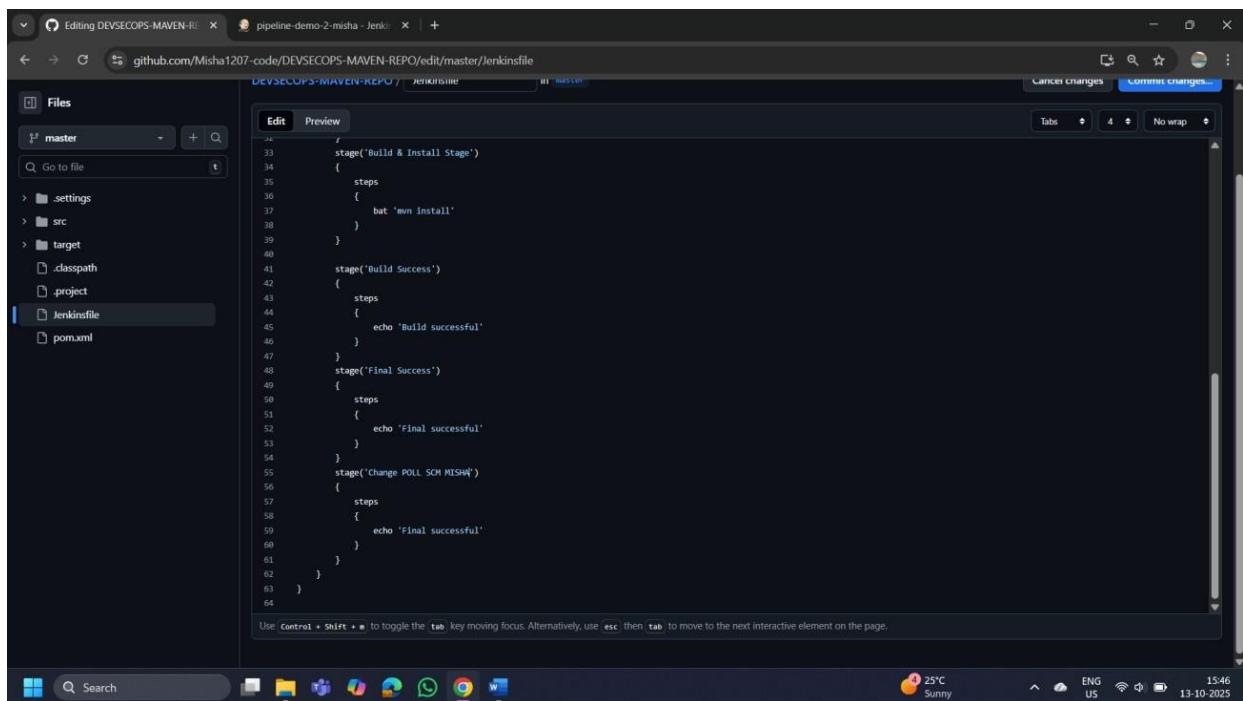
Set up automated actions that start your build based on specific events, like code changes or scheduled times:

Build after other projects are built ?
 Build periodically ?
 GitHub hook trigger for GITScm polling ?
 Maven Dependency Update Trigger ?
 Poll SCM ?
Schedule ?

⚠ Do you really mean "every minute" when you say "*****"? Perhaps you meant "H * * * *" to poll once per hour
Would last have run at Monday, 13 October, 2025 at 3:44:00 pm India Standard Time; would next run at Monday, 13 October, 2025 at 3:45:00 pm India Standard Time.

Ignore post-commit hooks ?
 Trigger builds remotely (e.g., from scripts) ?

Save Apply



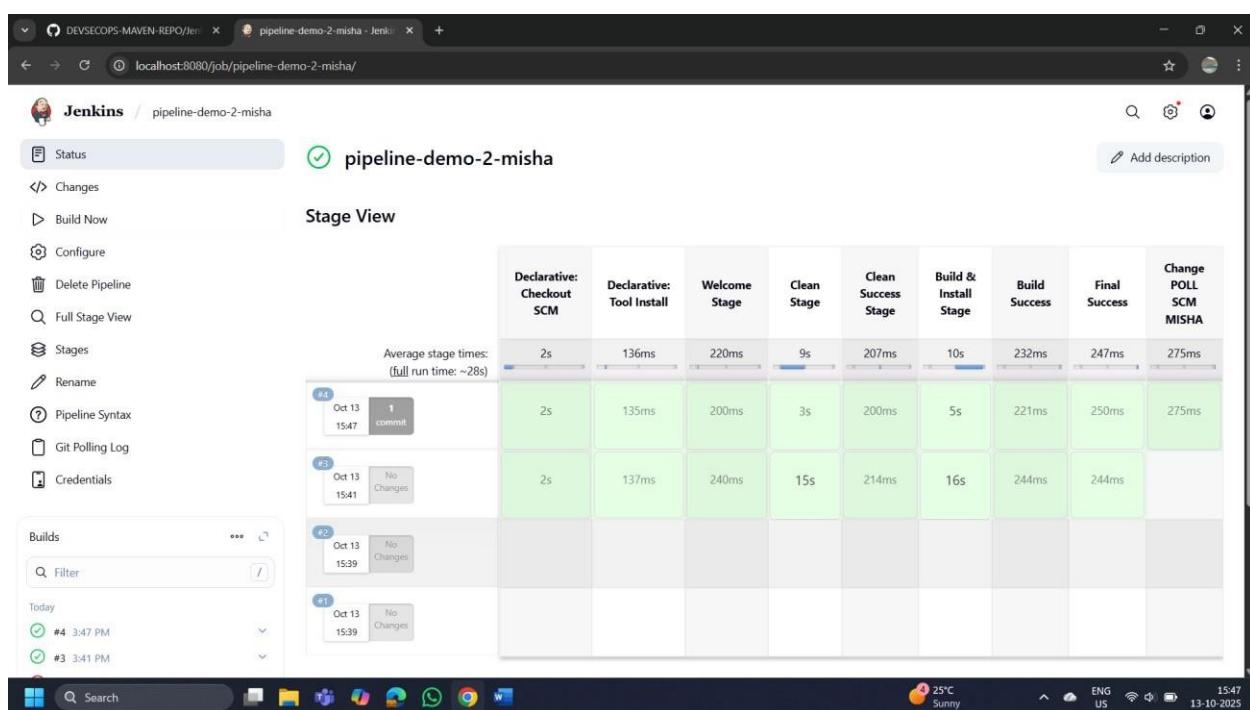
```

26
27
28
29
30
31
32
33     stage('Build & Install Stage')
34     {
35         steps
36         {
37             bat 'mvn install'
38         }
39     }
40
41     stage('Build Success')
42     {
43         steps
44         {
45             echo 'Build successful'
46         }
47     }
48     stage('Final Success')
49     {
50         steps
51         {
52             echo 'Final successful'
53         }
54     }
55     stage('Change POLL SCM MISHA')
56     {
57         steps
58         {
59             echo 'Final successful'
60         }
61     }
62 }
63

```

Use: **Control + Shift + m** to toggle the **tab** key moving focus. Alternatively, use **esc** then **tab** to move to the next interactive element on the page.

Final added build stage-



Jenkins / pipeline-demo-2-misha

Status: **green** pipeline-demo-2-misha

Add description

Changes: </> Build Now: Configure: Delete Pipeline: Full Stage View: Stages: Rename: Pipeline Syntax: Git Polling Log: Credentials:

Stage View

	Declarative: Checkout SCM	Declarative: Tool Install	Welcome Stage	Clean Stage	Clean Success Stage	Build & Install Stage	Build Success	Final Success	Change POLL SCM MISHA
Average stage times: (full run time: ~28s)	2s	136ms	220ms	9s	207ms	10s	232ms	247ms	275ms
#4 Oct 13 15:47 1 commit	2s	135ms	200ms	3s	200ms	5s	221ms	250ms	275ms
#3 Oct 13 15:41 No Changes	2s	137ms	240ms	15s	214ms	16s	244ms	244ms	
#2 Oct 13 15:39 No Changes									
#1 Oct 13 15:39 No Changes									

Builds: #4 3:47 PM, #3 3:41 PM

Now we have created a new Jenkins build stage without making hardcoding changes in Jenkins- making changes in Github repo and it will automatically reflect new added stages in the next build scheduled.