

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

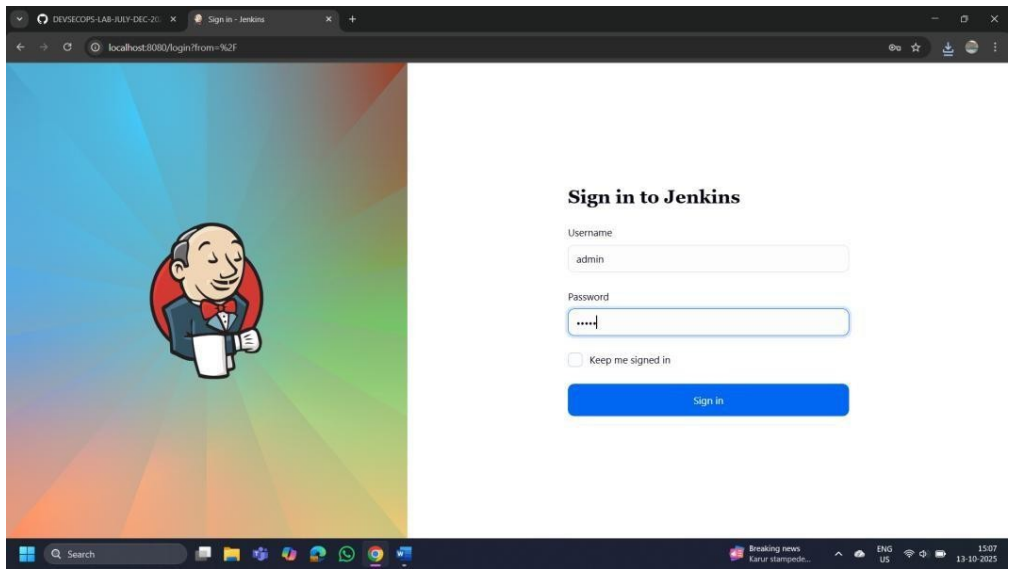
Steps to be followed:

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

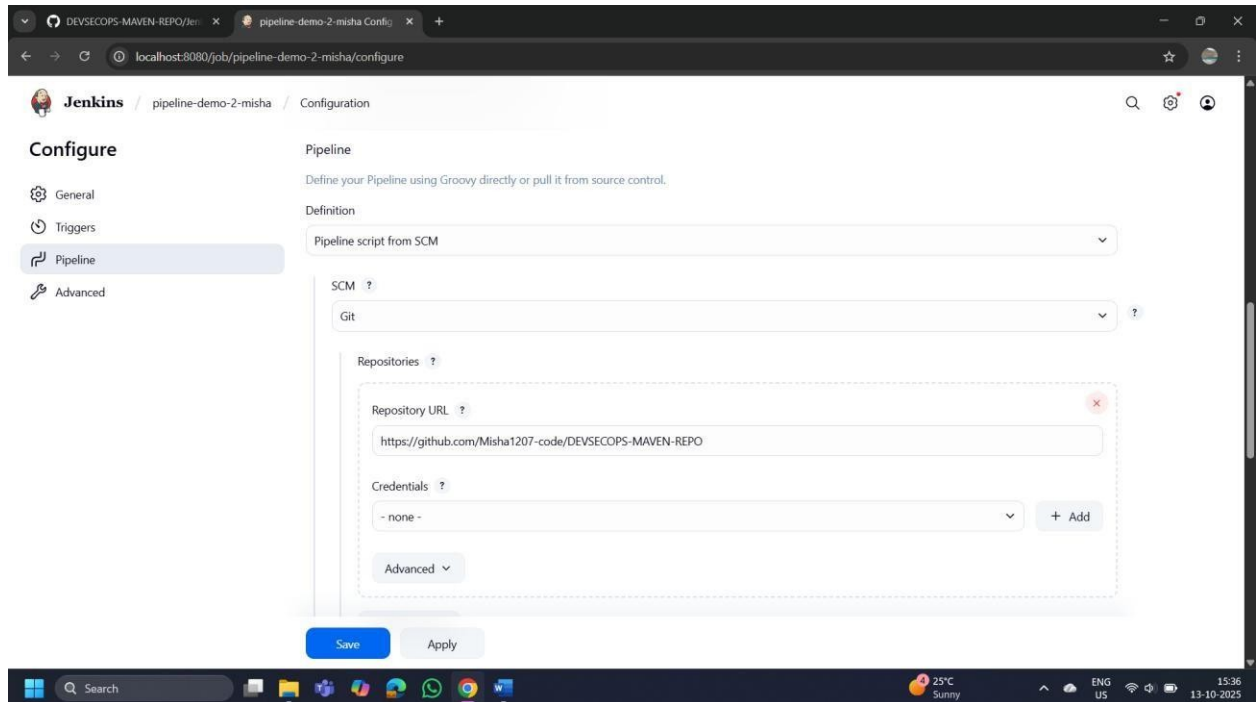
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1.2. Click on the New Item option as shown in the screenshot below:

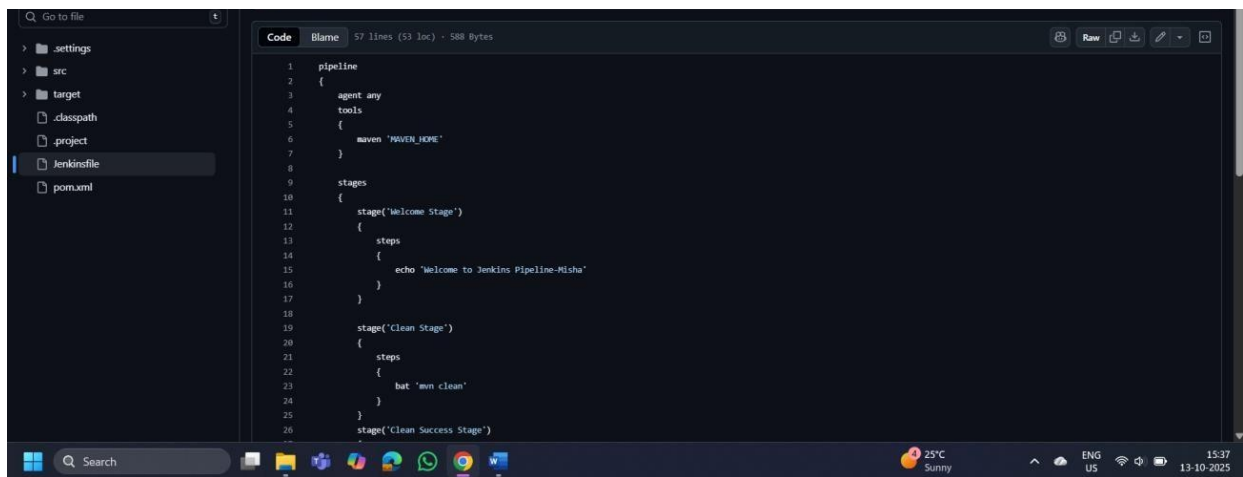
1.3. Enter a desired name for the project, select Pipeline, and then click on OK as shown in the screenshot below:

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:

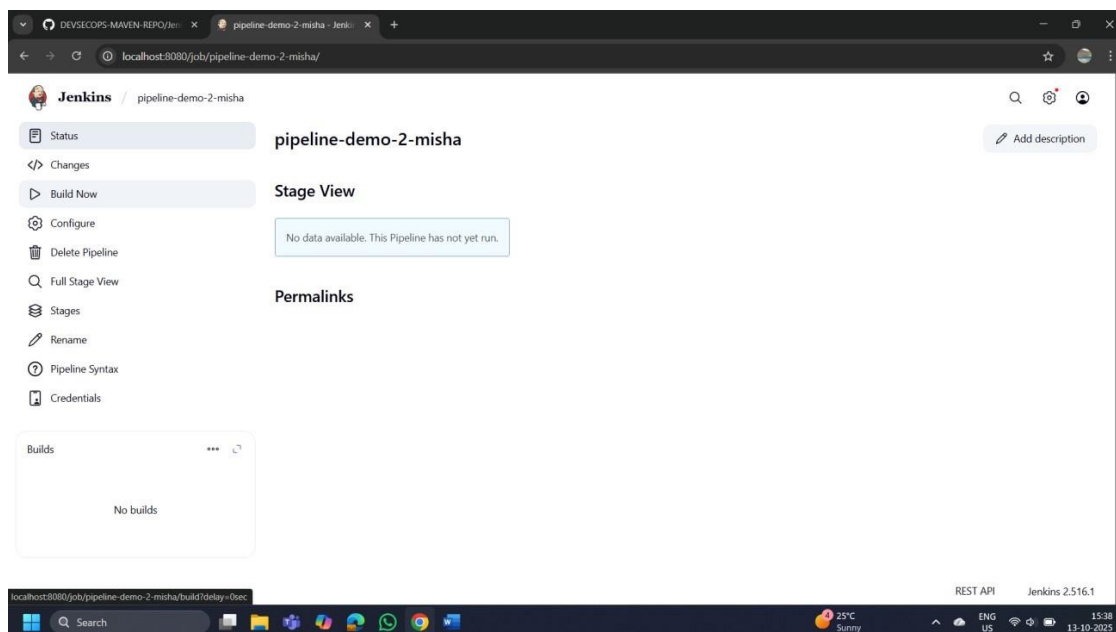
```
pipeline
{
  agent
  any
  stages
  {
    stage("hello") {
      steps {
        echo "welcome to Jenkins pipeline"
      }
    }
  }
}
```



The screenshot shows a code editor with a file explorer on the left and a code editor on the right. The file explorer shows a project structure with files like .settings, src, target, .classpath, .project, Jenkinsfile, and pom.xml. The code editor displays a Jenkins pipeline script with the following content:

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

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



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

The screenshot shows the Jenkins web interface for a pipeline named 'pipeline-demo-2-misha'. The 'Stage View' is active, displaying a table of stage durations for three builds. The first build is successful, while the second and third are failed. The table columns represent different stages of the pipeline, and the rows represent individual builds. The 'Average stage times' are shown at the top of the table.

	Declarative: Checkout SCM	Declarative: Tool Install	Welcome Stage	Clean Stage	Clean Success Stage	Build & Install Stage	Build Success	Final Success
Average stage times: (full run time: ~39s)	2s	137ms	240ms	15s	214ms	16s	244ms	244ms
#1 Oct 13 15:41 No Changes	2s	137ms	240ms	15s	214ms	16s	244ms	244ms
#2 Oct 13 15:39 No Changes								
#3 Oct 13 15:39 No Changes								

Below the table, there are 'Permalinks' for the last build and the last failed build. The bottom of the screenshot shows a Windows taskbar with the date and time as 13-10-2025 15:42.



After using POLL SCM method-

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 ?

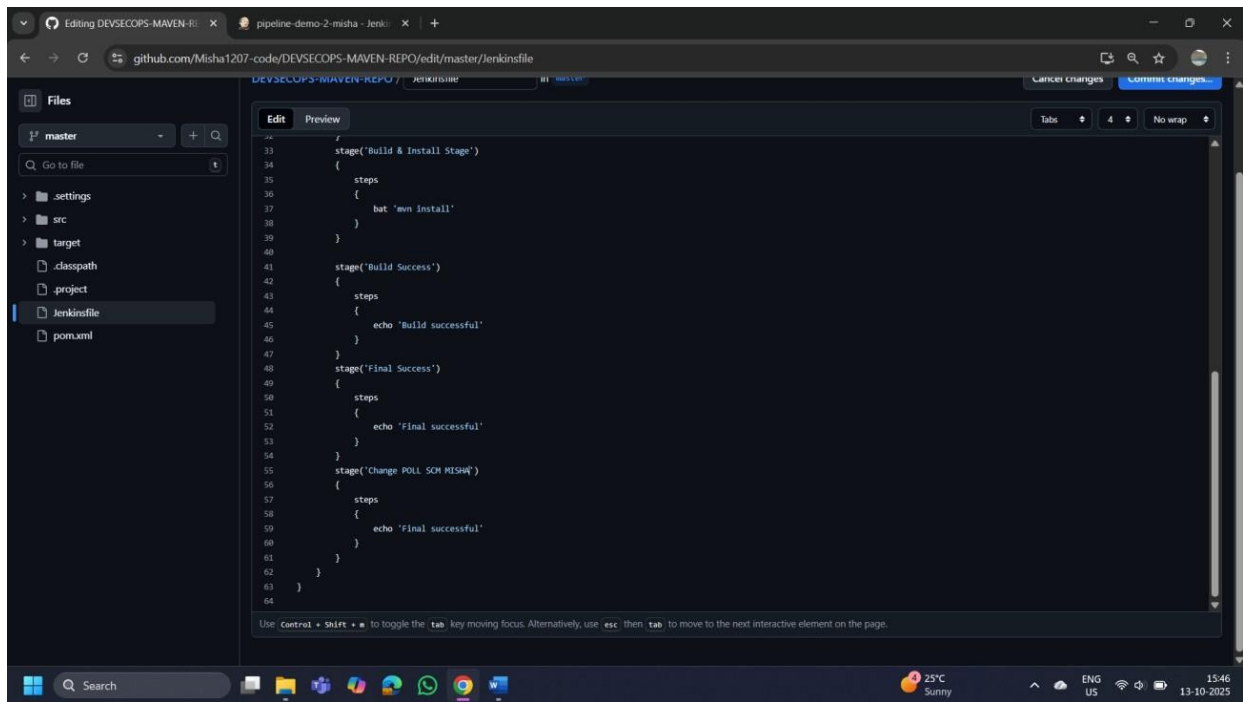
Schedule ?

⚠ 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.

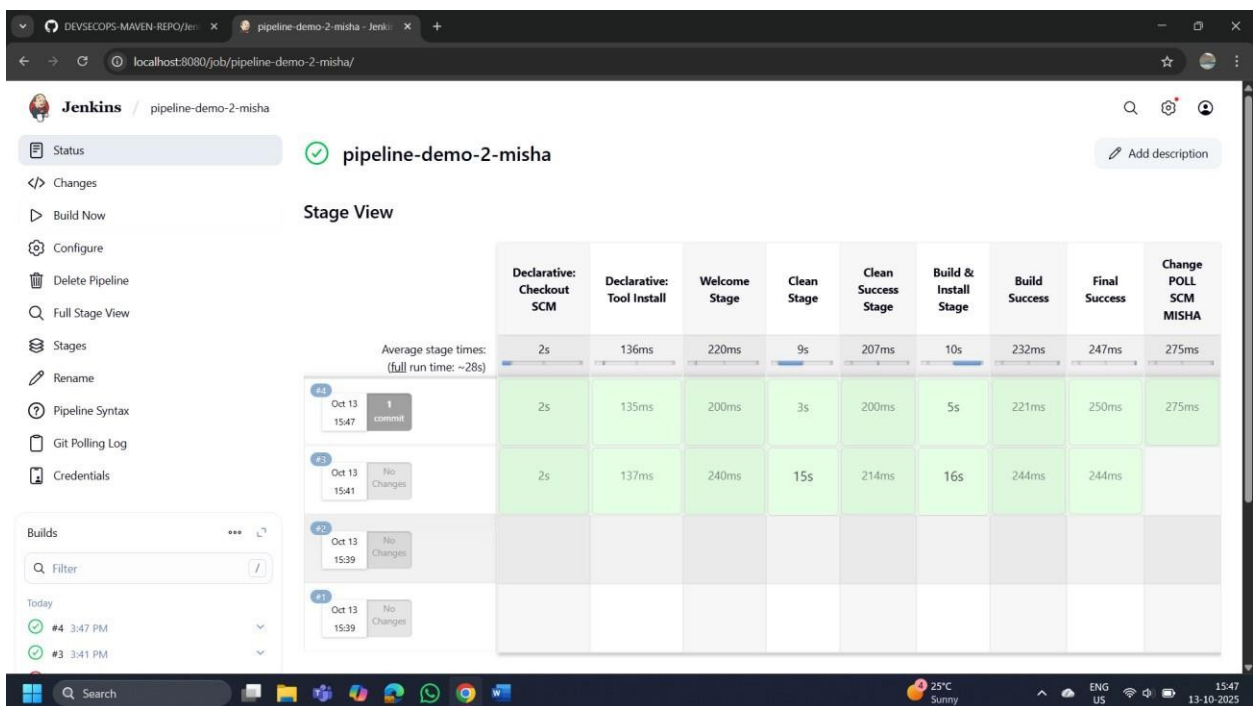
- ☐ Ignore post-commit hooks ?
- ☐ Trigger builds remotely (e.g., from scripts) ?

Save

Apply



Final added build stage-



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.