

Lab Exercise 20

Creating a Pipeline Script

PART 2

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Batch-2(DevOps)

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

Tools required: Jenkins

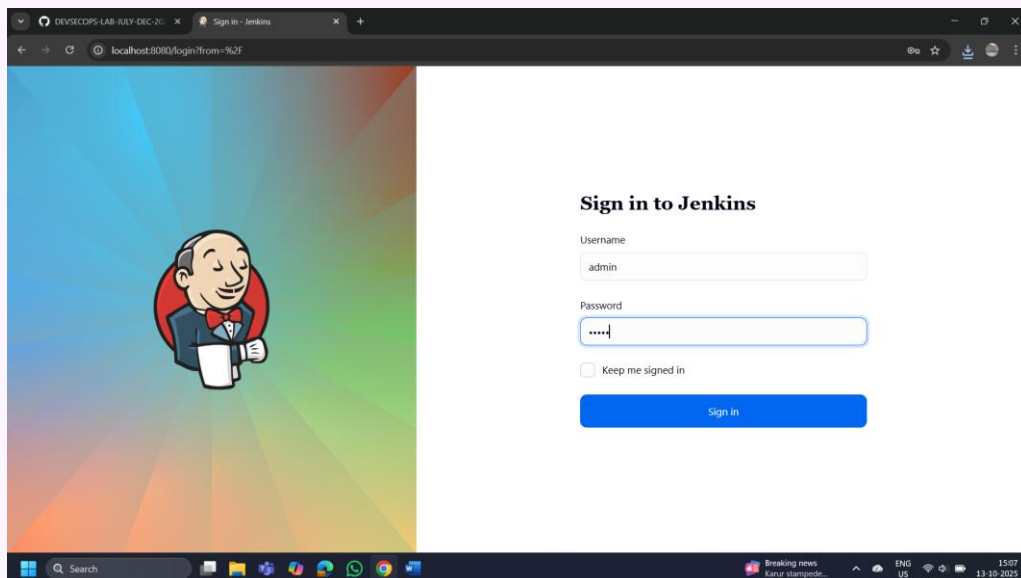
Prerequisites: None

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

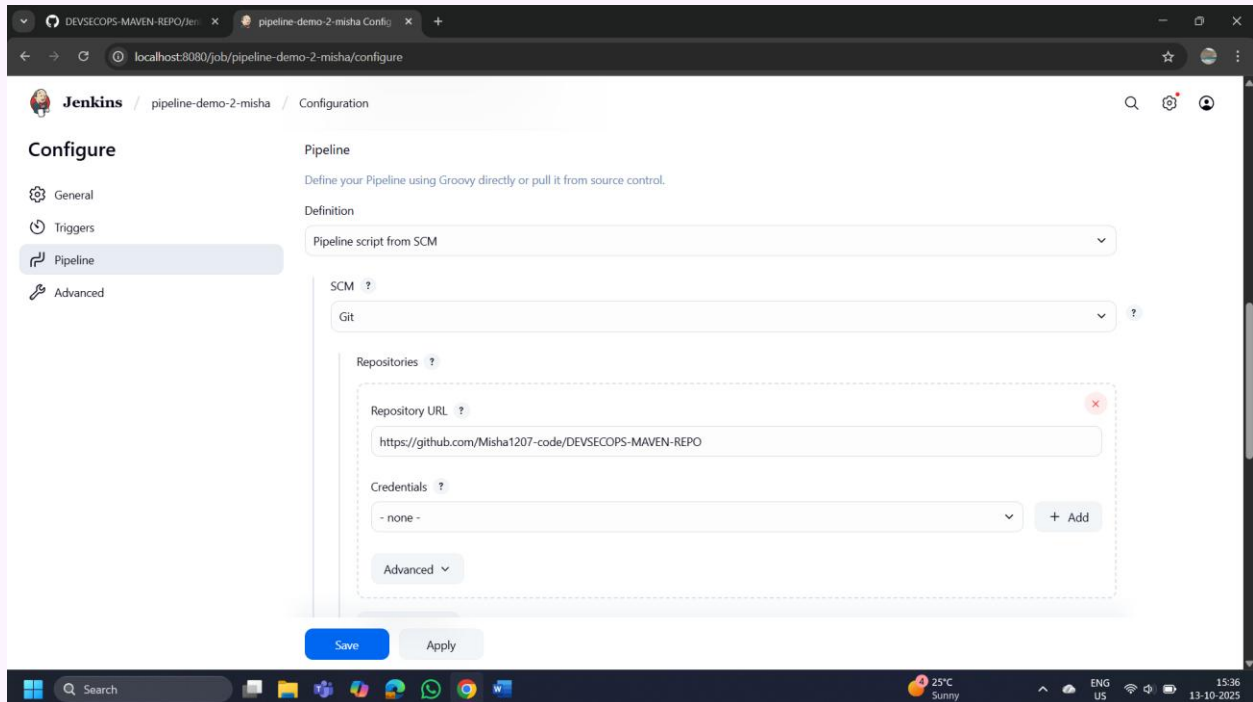
- 1.1 Open the browser, go to the Jenkins **Dashboard** by typing **localhost:8080** in your browser, provide the credentials, and click the **Sign in** button



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

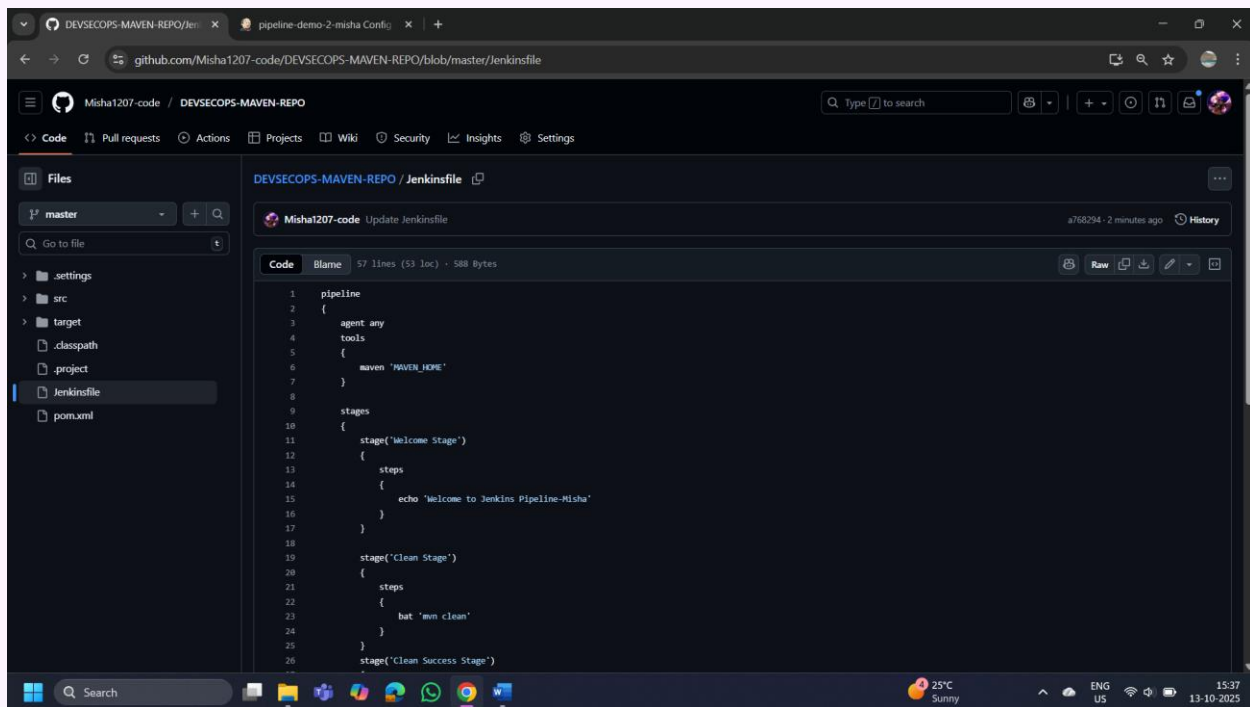
1.3 Enter a desired name for the project, select **Pipeline**, and then click on **OK** as shown in the screenshot below:

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

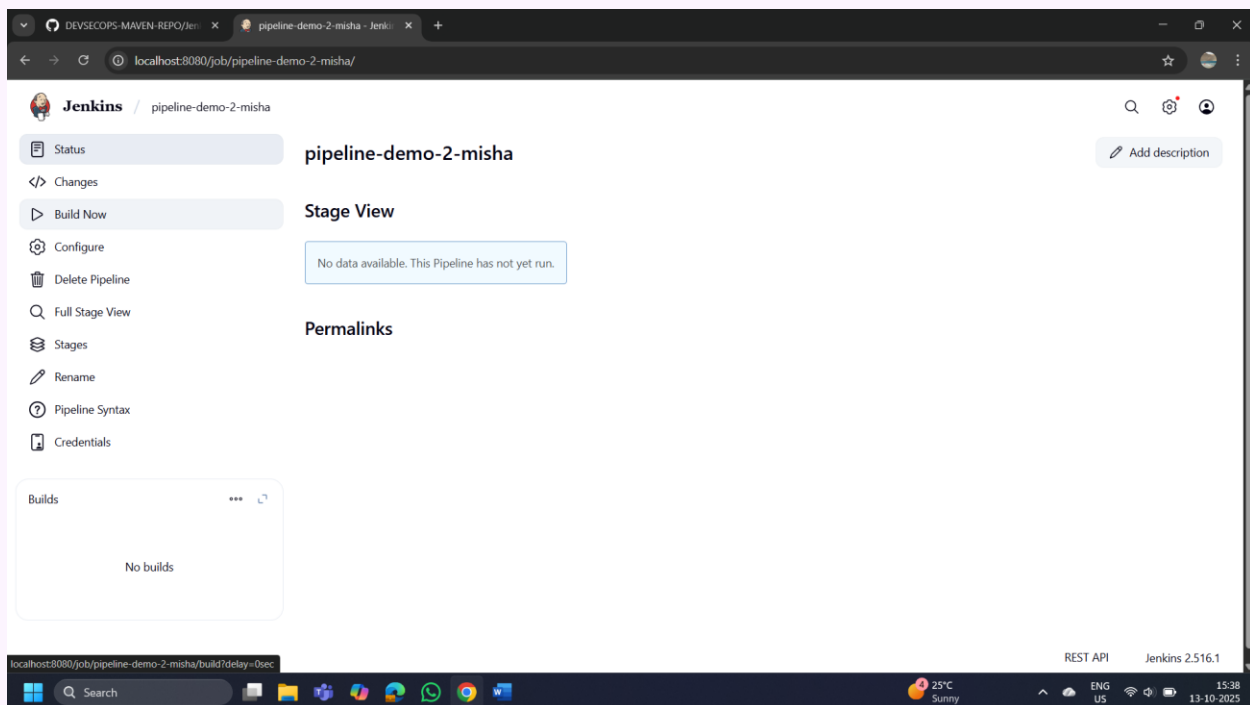


1.5 Enter the following pipeline script in the script editor and click on **Save** as shown in the screenshot below:

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



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 displayed, showing a table of stages and their durations. The stages are: Declarative: Checkout SCM (2s), Declarative: Tool Install (137ms), Welcome Stage (240ms), Clean Stage (15s), Clean Success Stage (214ms), Build & Install Stage (16s), Build Success (244ms), and Final Success (244ms). The table also shows the average stage times and the full run time (~39s). Below the table, there are three builds listed: #3 (Oct 13 15:41, No Changes), #2 (Oct 13 15:39, No Changes), and #1 (Oct 13 15:39, No Changes). The build #2 is highlighted as the last build, and build #1 is highlighted as the last failed build. The interface also includes a sidebar with navigation options like Status, Changes, Build Now, Configure, Delete Pipeline, Full Stage View, Stages, Rename, Pipeline Syntax, and Credentials. The bottom of the screenshot shows the Windows taskbar with the search bar, task view button, and various application icons.

	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
#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								

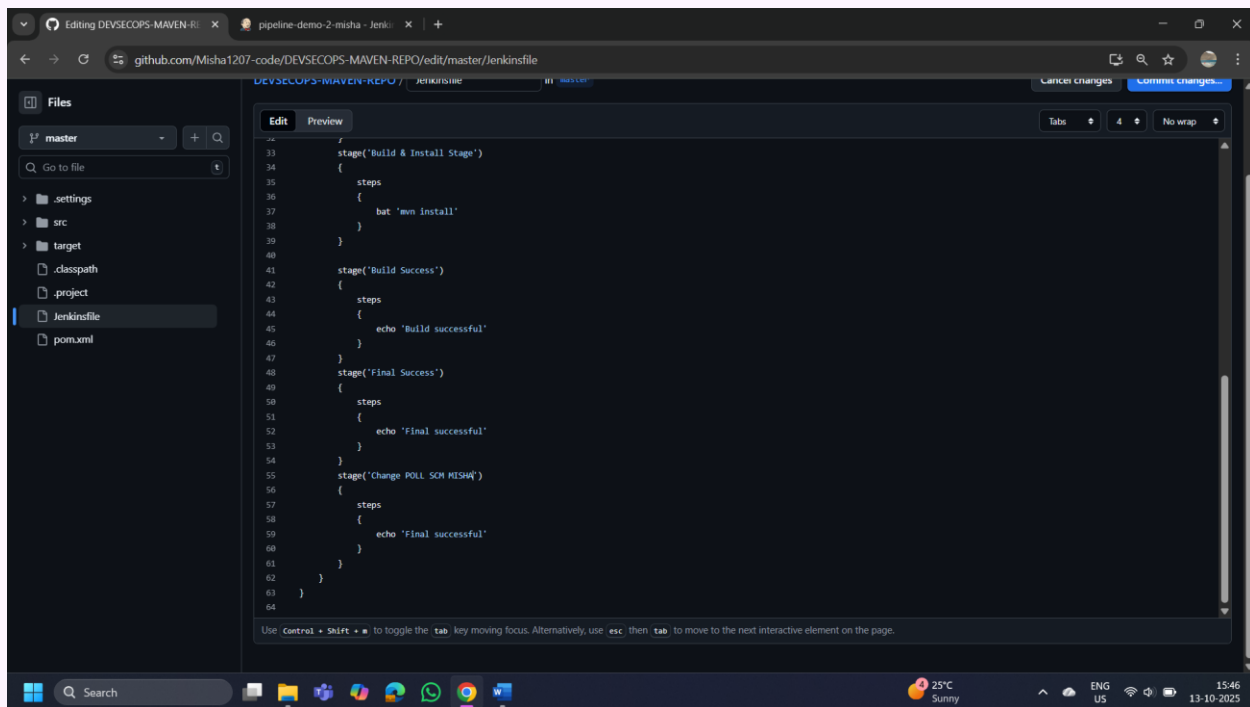
Permalinks

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

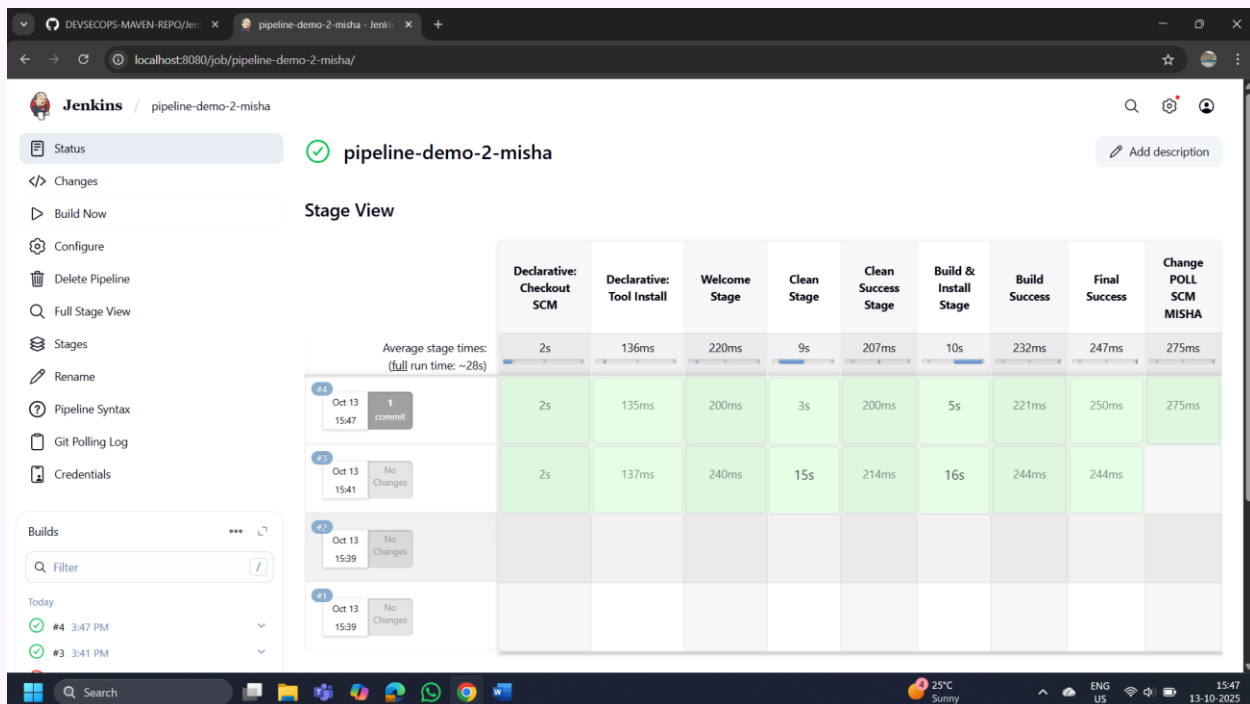


After using POLL SCM method-

The screenshot shows the Jenkins configuration page for the pipeline 'pipeline-demo-2-misha'. The 'Triggers' section is selected in the left sidebar. The main content area shows the 'Triggers' configuration. The 'Poll SCM' checkbox is checked, and the 'Schedule' field is set to '*****'. A warning message is displayed below the schedule field: '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.' There are also checkboxes for 'Build after other projects are built', 'Build periodically', 'GitHub hook trigger for GITScm polling', 'Maven Dependency Update Trigger', and 'Ignore post-commit hooks'. At the bottom, there are 'Save' and 'Apply' buttons.



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.