

Lab Exercise 20

Creating a Pipeline Script

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

Tools required: Jenkins

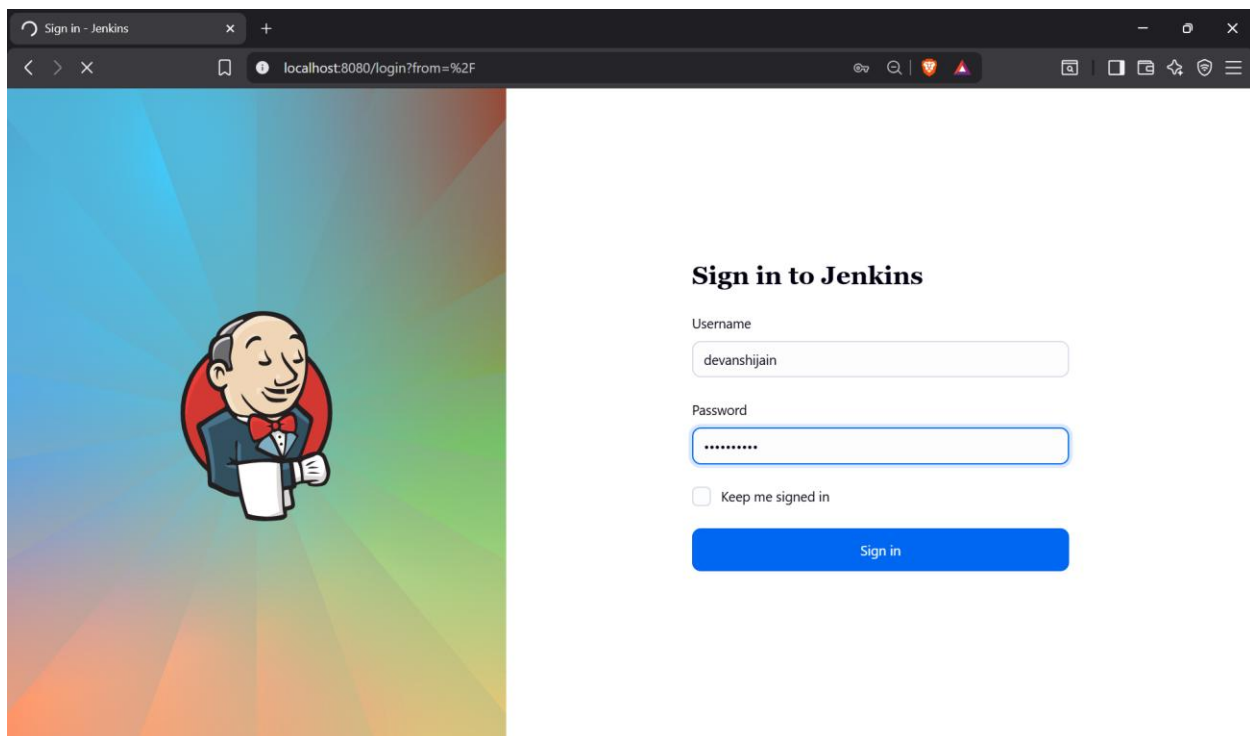
Prerequisites: None

Steps to be followed:

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

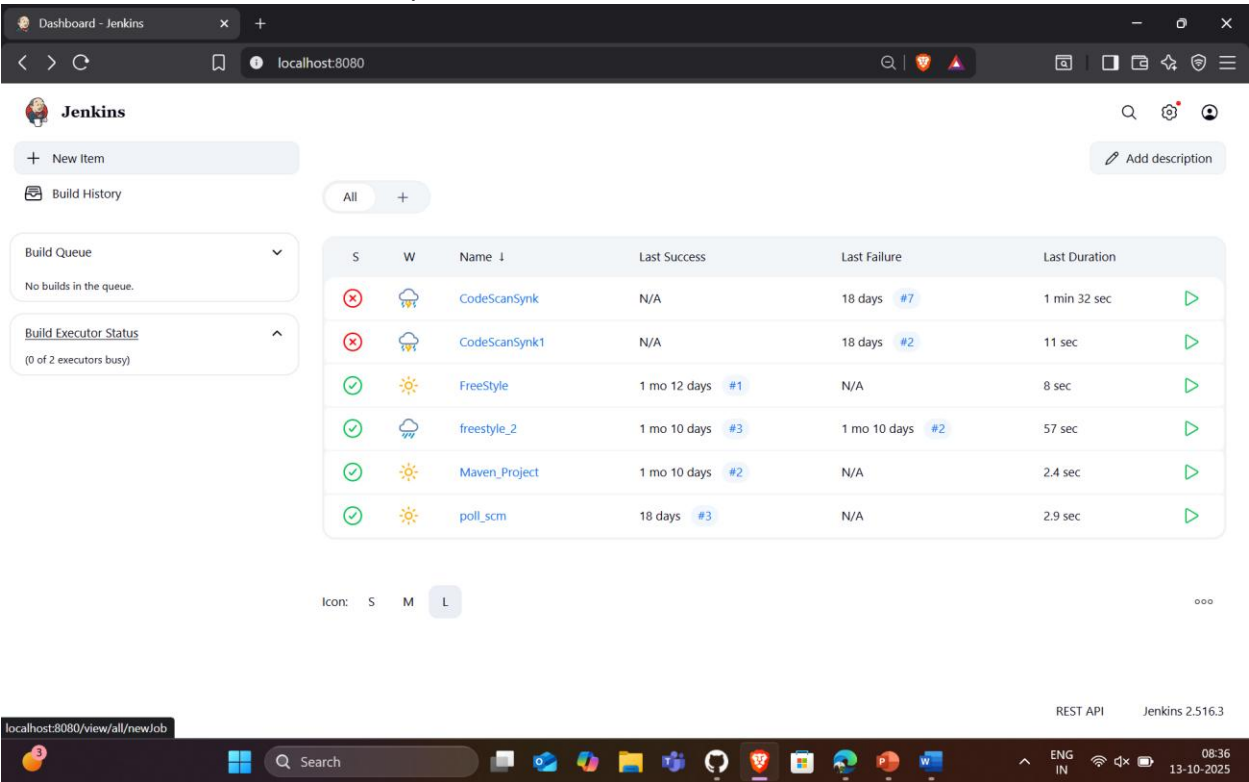
Step 1: Log in to the Jenkins CI tool and create a pipeline script

- 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

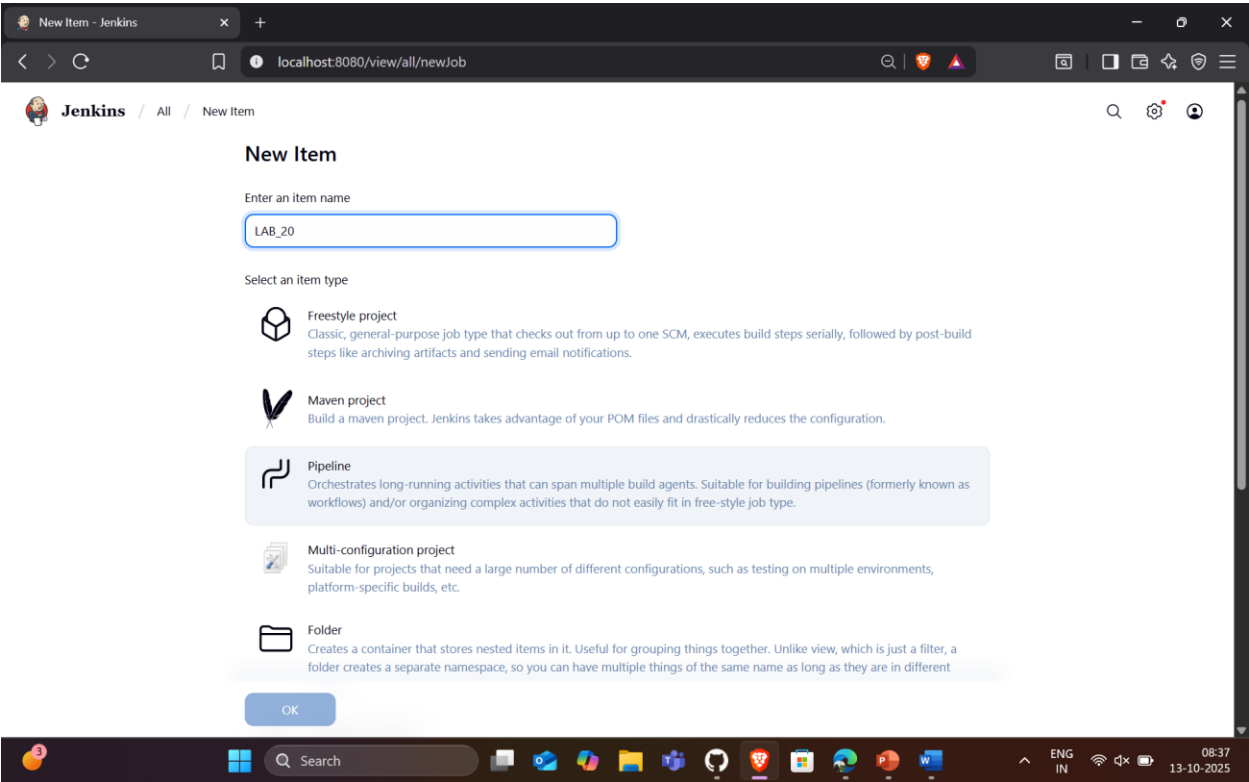


Note: The credentials for accessing Jenkins in the lab are Username: **admin** and Password: **admin**.

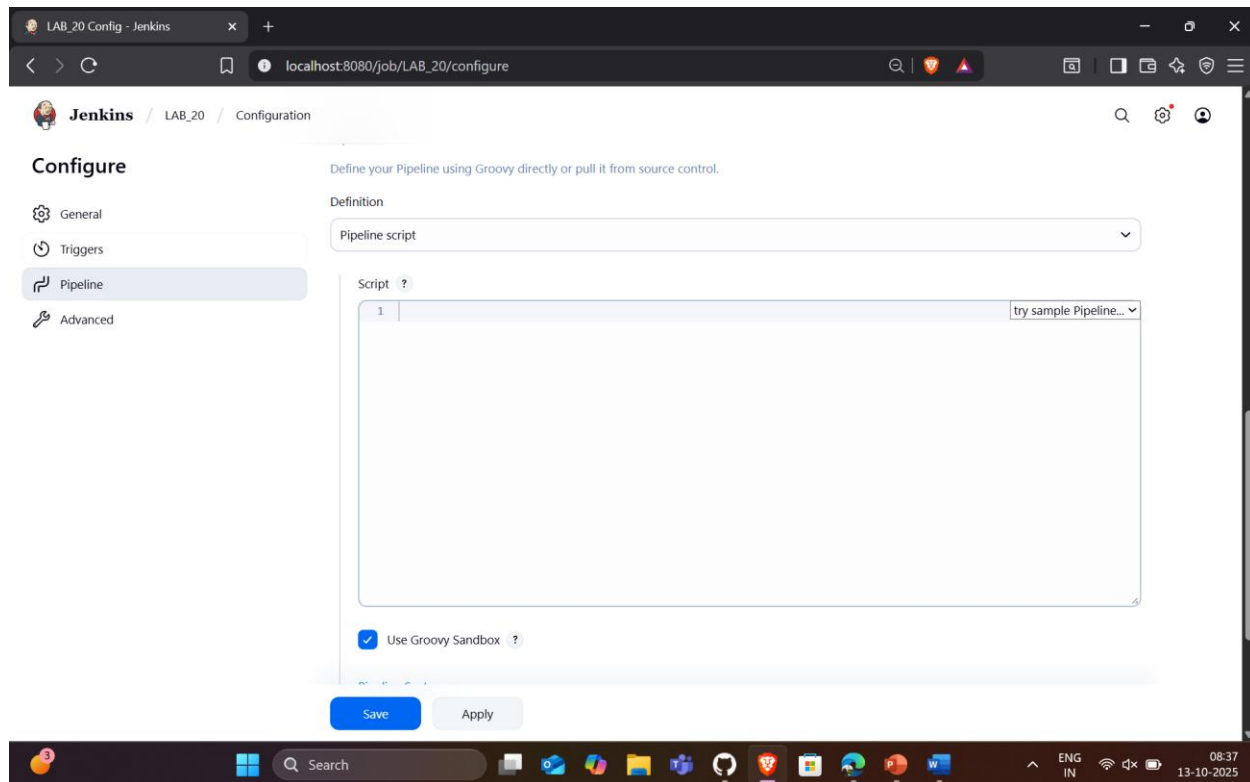
1.2 Click on the **New Item** option as shown in the screenshot below:



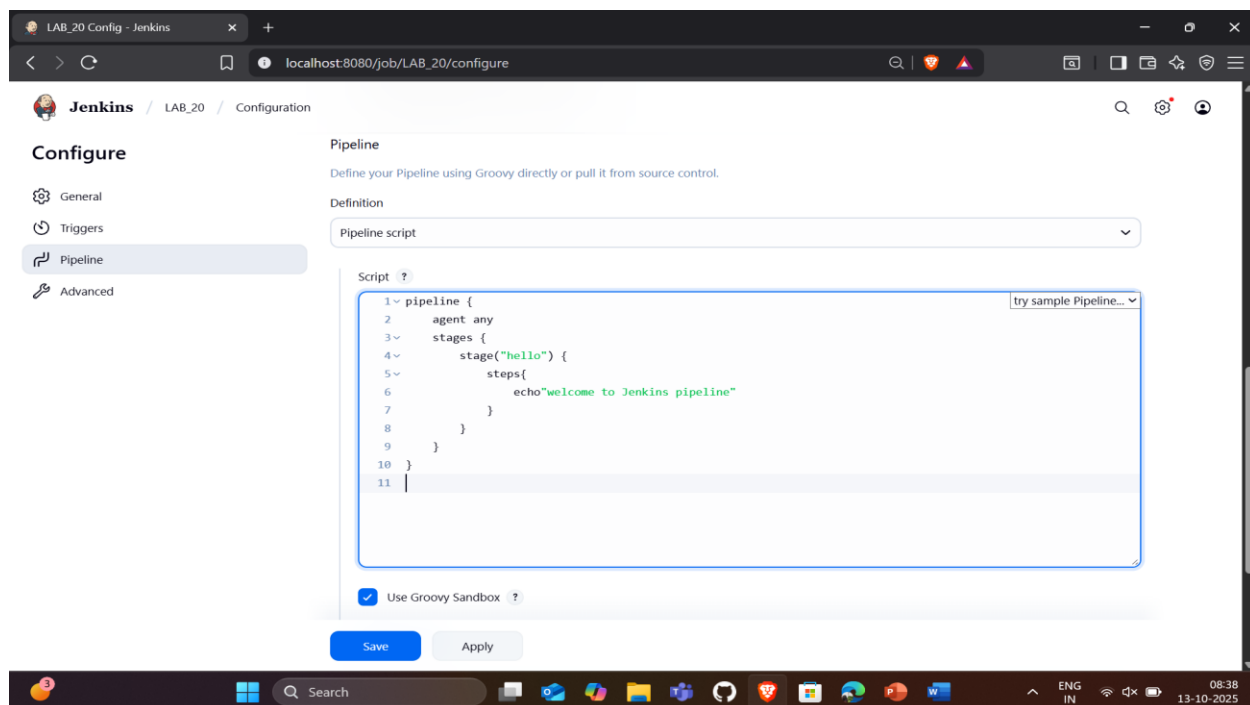
1.3 Enter a desired name for the project, select **Pipeline**, and then click on **OK** as shown in the screenshot below:



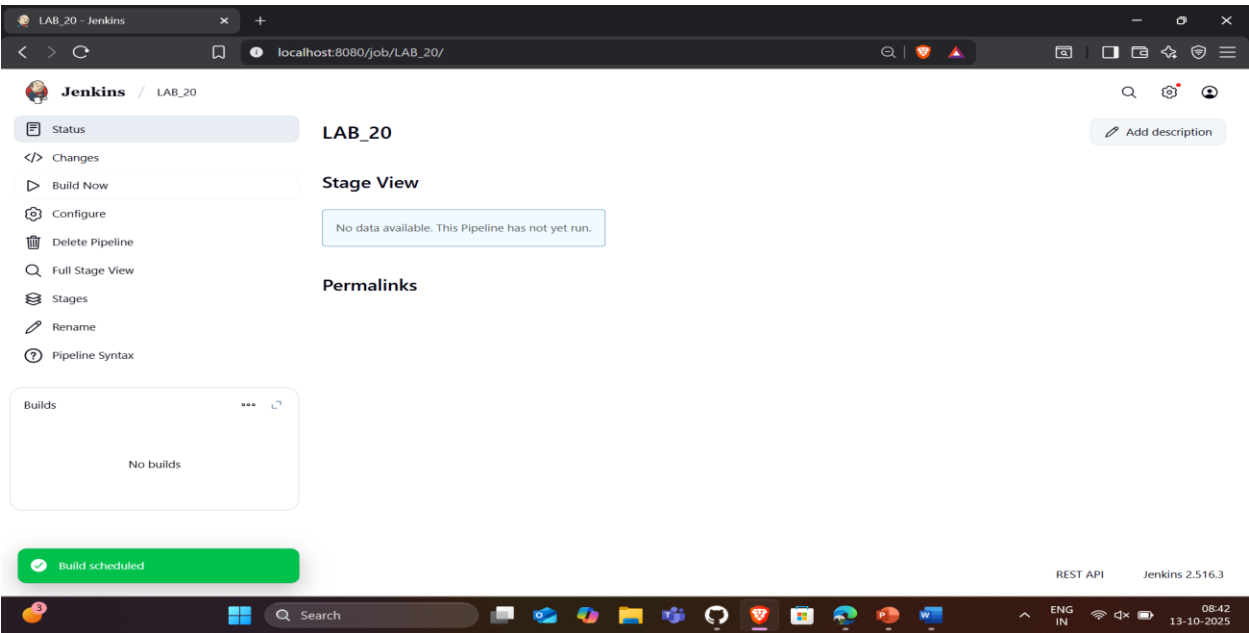
1.4 Click on **Pipeline** as shown in the screenshot below:



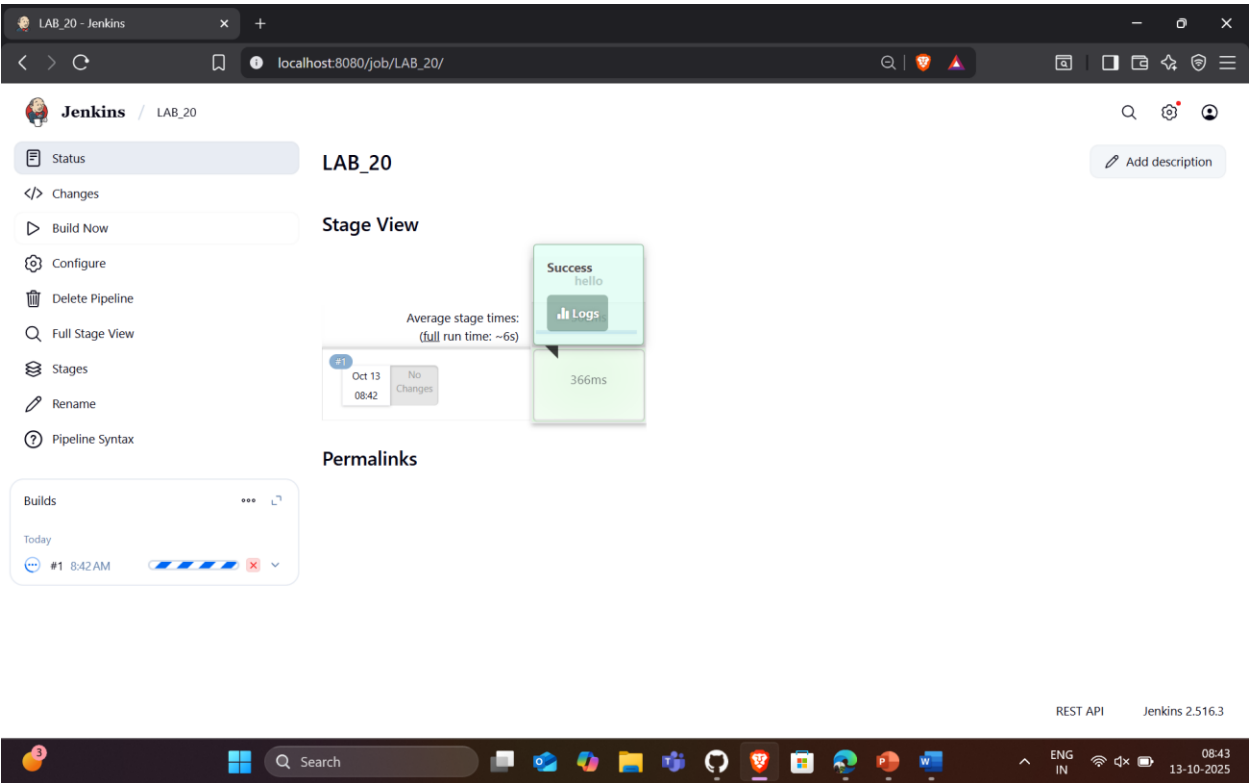
1.5 Enter the following pipeline script in the script editor and click on **Save** as shown in the screenshot below:



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

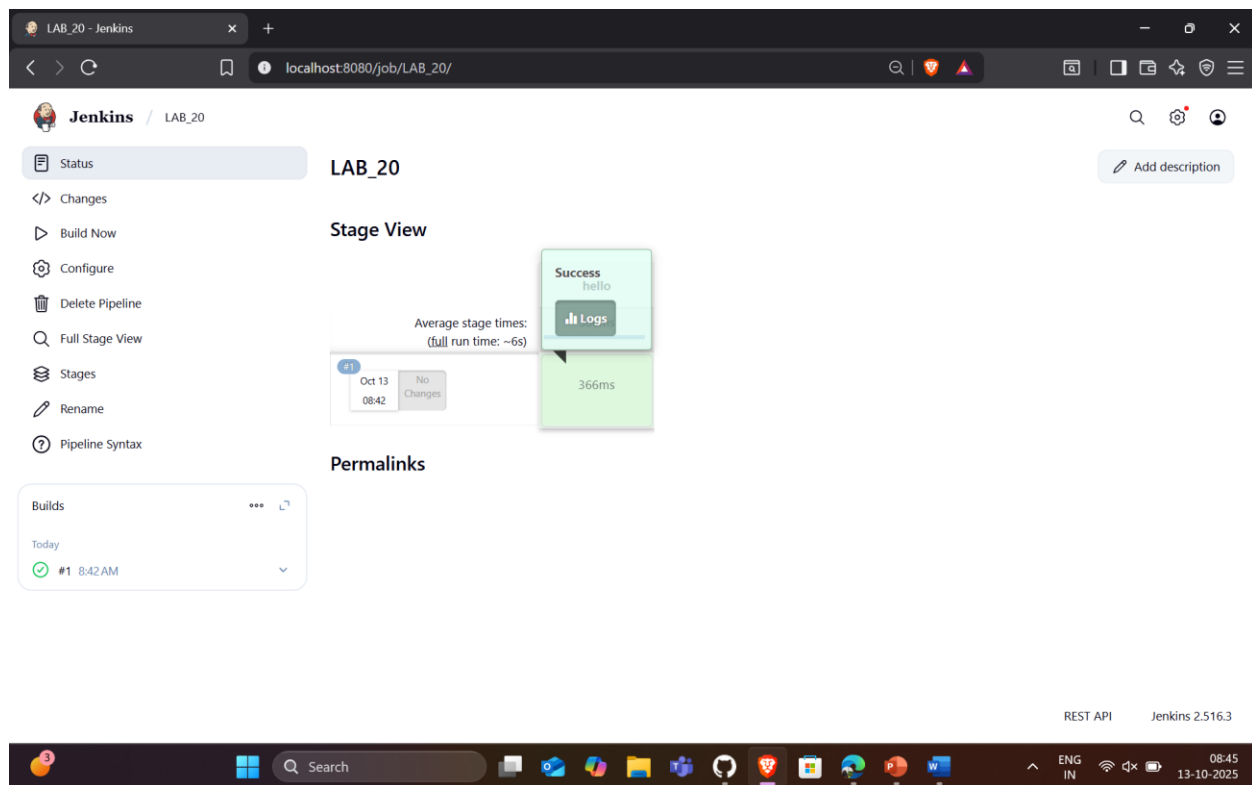


1.7 Hover over the milliseconds number next to the build stage name as shown in the screenshot below:

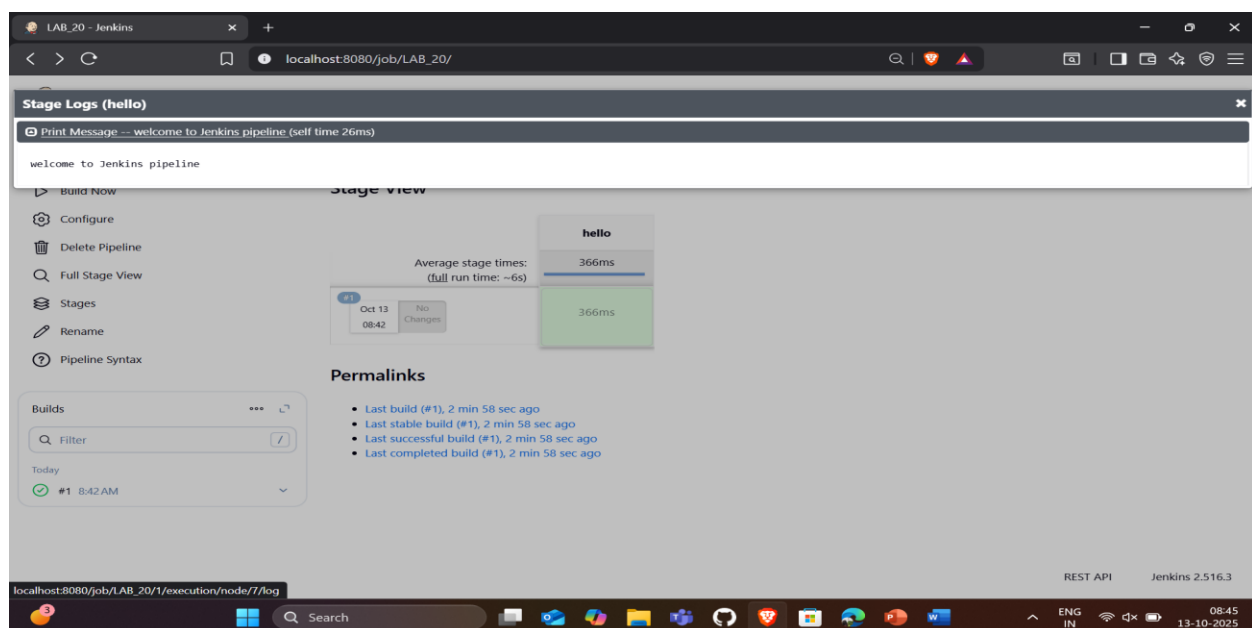


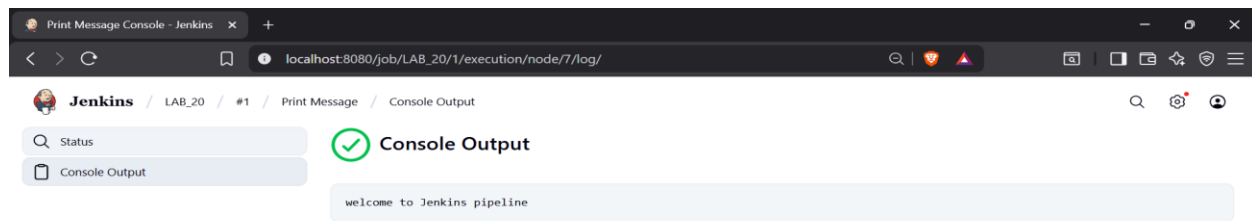
Note: Ensure that you hover the cursor over the milliseconds number without clicking on it

1.8 Click on **Logs** as shown in the screenshot below:



1.9 Check for the message in the top-left corner to confirm the successful execution of the pipeline stage as shown in the screenshot below:

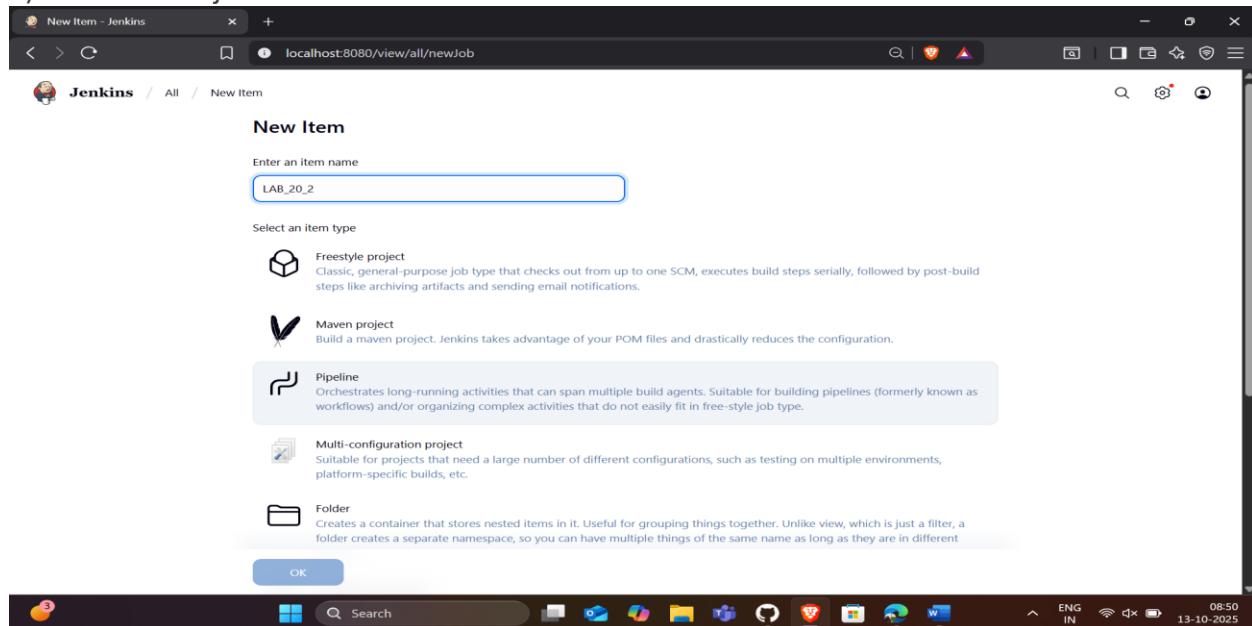




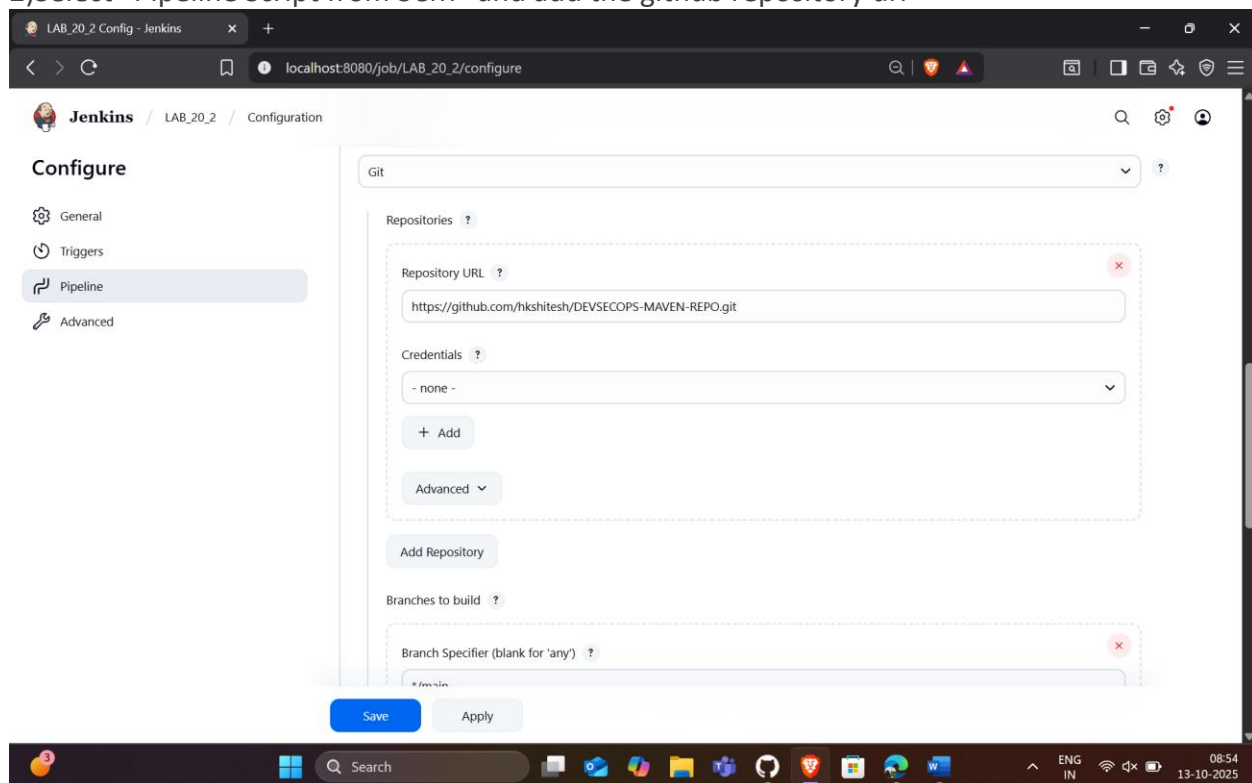
By following these steps, you have successfully created a pipeline script for automating build processes in Jenkins.

PART-2 : Creating Jenkins Pipeline through Github Project

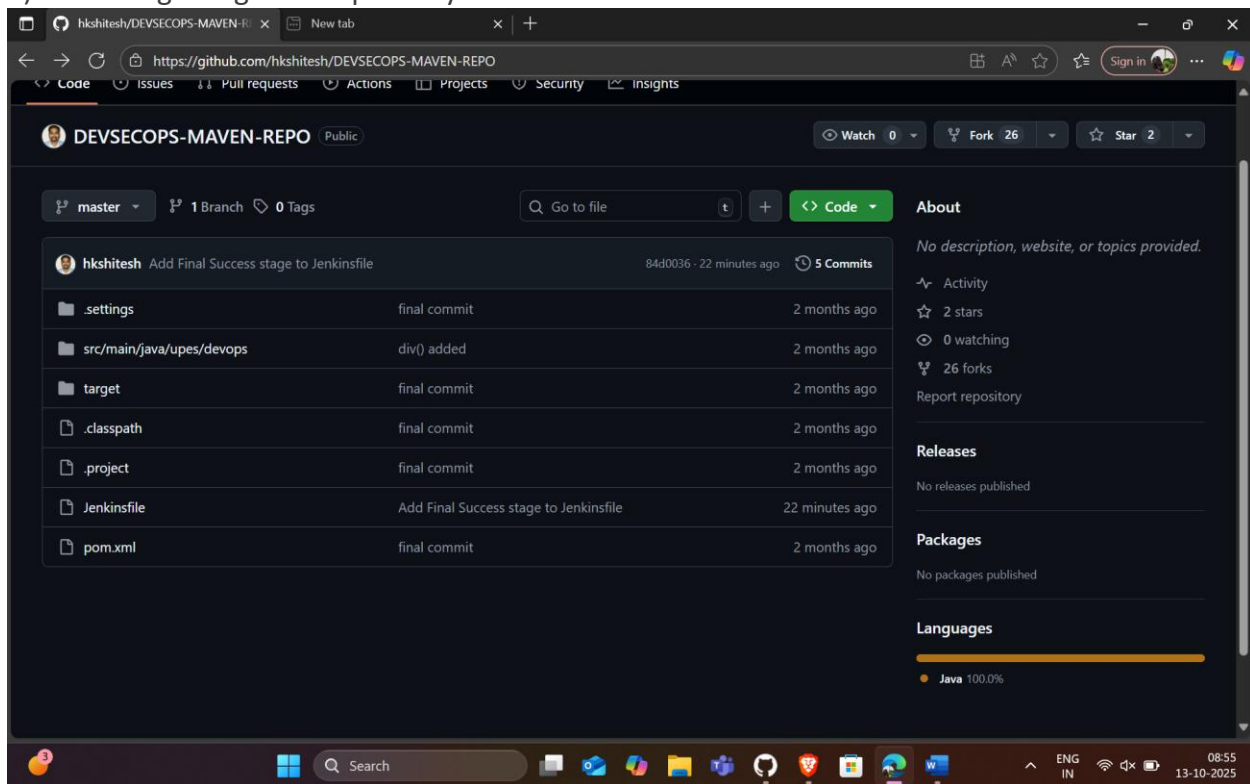
1) Create a new job



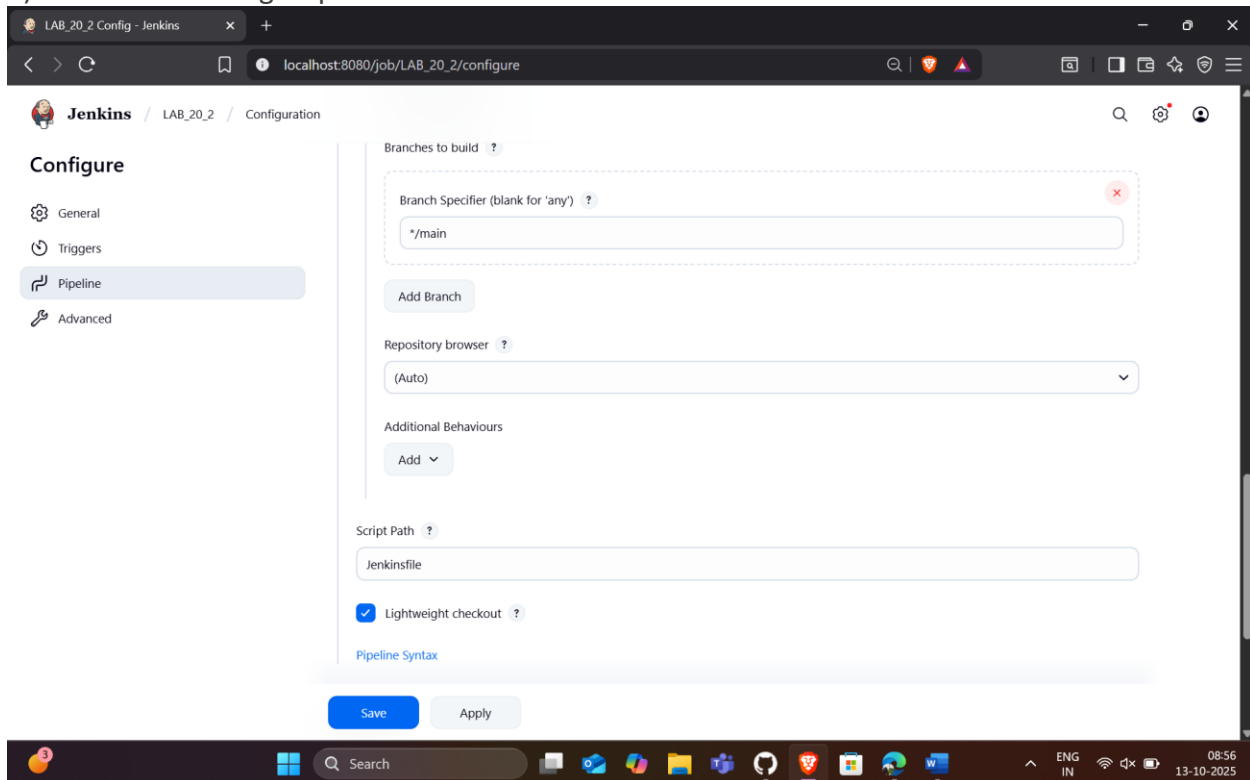
2) Select "Pipeline Script from SCM" and add the github repository url



3) I am using this github repository



4) Add the remaining required information



5) Adding Poll SCM trigger with cron job ***** so that it runs after every five minutes

The screenshot shows the Jenkins configuration page for a job named 'LAB_20_2'. The 'Triggers' section is active, and the 'Poll SCM' checkbox is checked. The 'Schedule' field contains the cron job '*****'. A warning message below the field states: 'Do you really mean "every minute" when you say "*****"? Perhaps you meant "H * * * *"' to poll once per hour. The last run was on Monday, 13 October, 2025, at 8:57:00 am India Standard Time; the next run is scheduled for Monday, 13 October, 2025, at 8:58:00 am India Standard Time. The 'Save' button is highlighted.

6) Click on Build Now

The screenshot shows the Jenkins job view for 'LAB_20_2'. The 'Build Now' button is highlighted in the left sidebar. The main area shows 'No data available. This Pipeline has not yet run.' and 'No builds' in the builds section. A green notification bar at the bottom left says 'Build scheduled'. The bottom status bar shows 'localhost:8080/job/LAB_20_2/build?delay=0sec', 'REST API', 'Jenkins 2.516.3', and the system clock.

7) This is the Stage view after pipeline has been successfully run

LAB_20_2 - Jenkins

localhost:8080/job/LAB_20_2/

Jenkins / LAB_20_2

Status

Changes

Build Now

Configure

Delete Pipeline

Full Stage View

Stages

Rename

Pipeline Syntax

Git Polling Log

LAB_20_2

Add description

Stage View

Average stage times:
(full run time: ~40s)

	Declarative: Checkout SCM	Declarative: Tool Install	Welcome Stage	Clean Stage	Clean Success Stage	Build & Install Stage	Build Success	Final Success
#4 Oct 13 09:01 No Changes	3s	2s	604ms	6s	446ms	22s	396ms	457ms
#3 Oct 13 09:00 No Changes								
#2 Oct 13 08:59 No Changes								
#1 Oct 13 08:57 No Changes								

Permalinks

Builds

Filter

Today

#4 9:01 AM

#3 9:00 AM

#2 8:59 AM

#1 8:57 AM

Stage Logs (Final Success)

Use a tool from a predefined Tool Installation -- MAVEN_HOME (self time 73ms)

Fetches the environment variables for a given tool in a list of 'FOO=bar' strings suitable for the withEnv step. (self time 86ms)

Print Message -- Final successful (self time 15ms)

Delete Pipeline

Full Stage View

Stages

Rename

Pipeline Syntax

Git Polling Log

Builds

Filter

Today

#4 9:01 AM

#3 9:00 AM

#2 8:59 AM

#1 8:57 AM

Permalinks

Last build (#4), 46 sec ago