

Lab Exercise 20

Creating a Pipeline Script

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DEVOPS

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

Tools required: Jenkins

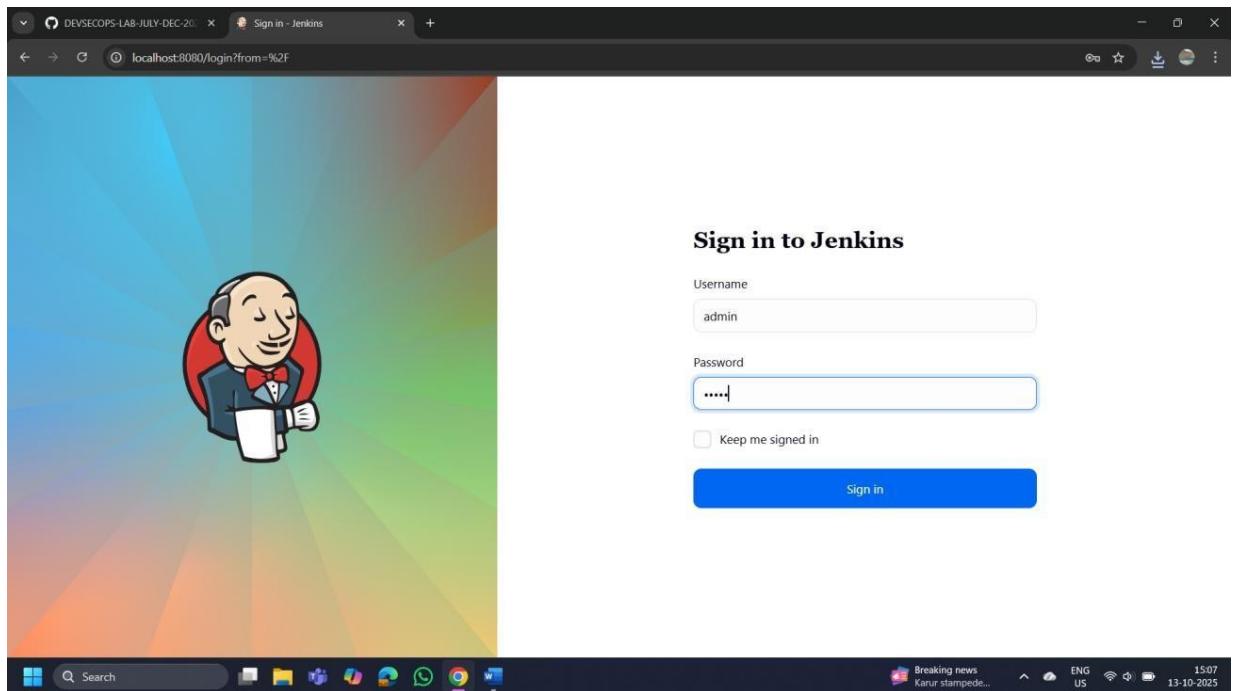
Prerequisites: None

Steps to be followed:

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

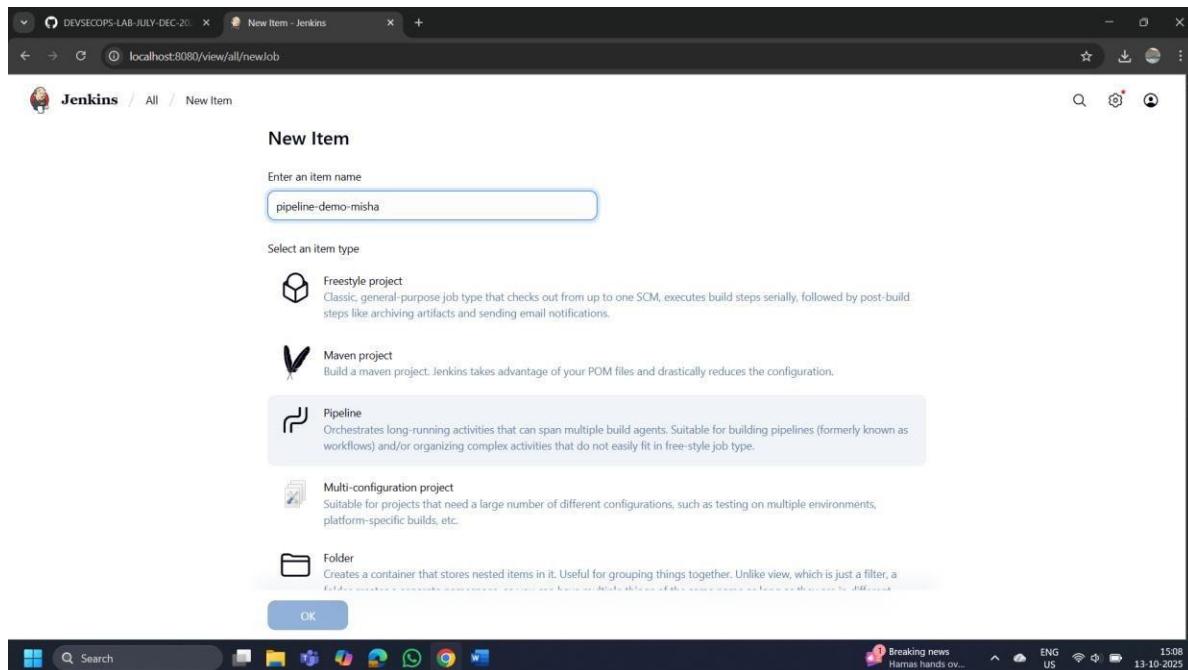
Step 1: Log in to the Jenkins Cl tool and create a pipeline script

- 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

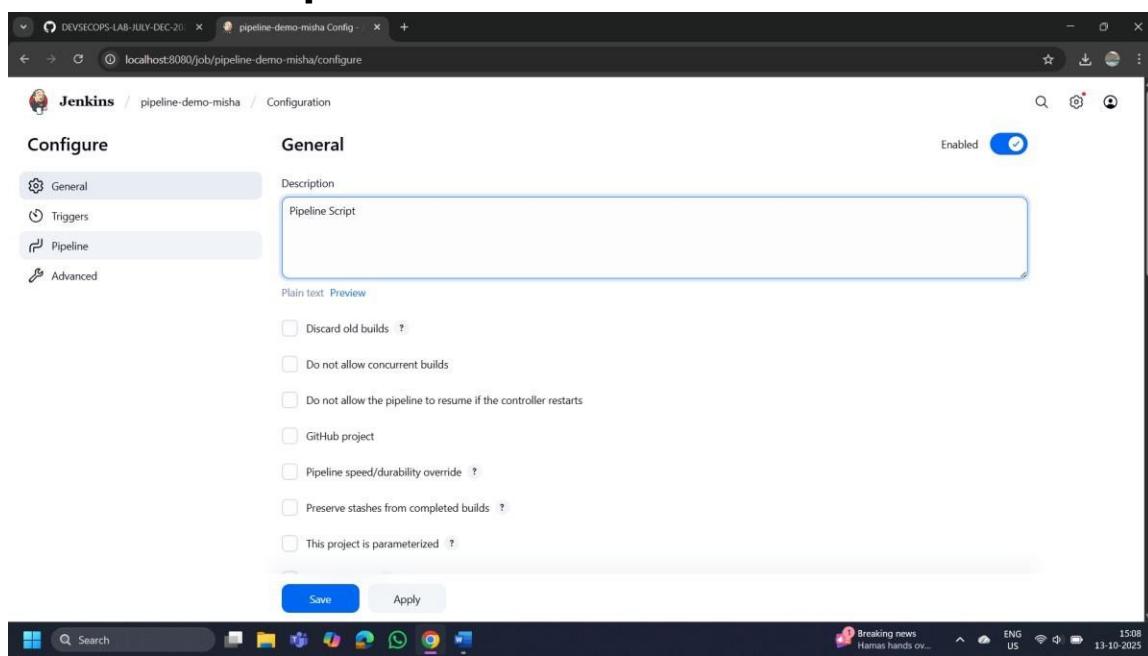


1.2.Click on the New Item option as shown in the screenshot below:

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:



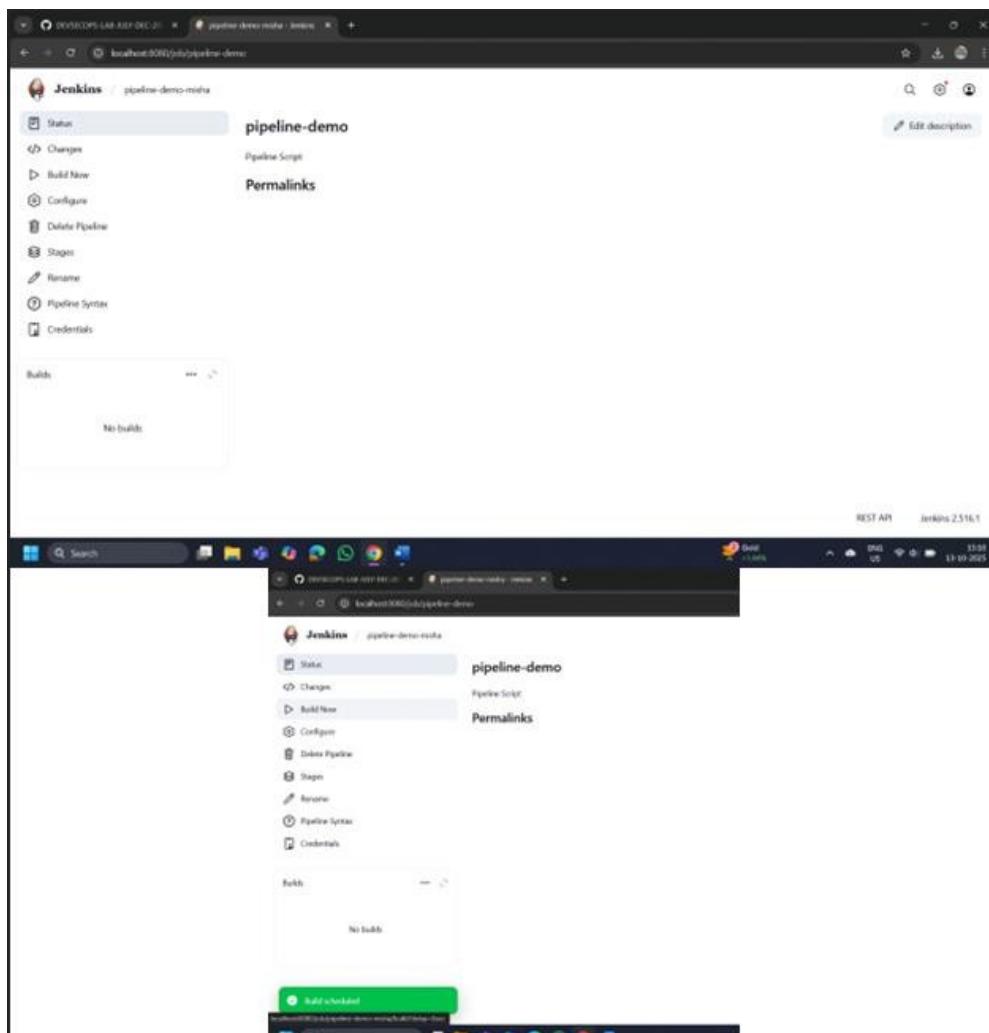
1.5.Enter the following pipeline script in the script editor and click on Save as shown in the screenshot below:

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

The screenshot shows the Jenkins Pipeline configuration page for a job named 'pipeline-demo-misha'. The left sidebar has tabs for 'General', 'Triggers', 'Pipeline' (which is selected), and 'Advanced'. The main area is titled 'Pipeline' and contains the instruction 'Define your Pipeline using Groovy directly or pull it from source control.' Below this is a 'Definition' dropdown set to 'Pipeline script', and a large text area labeled 'Script' containing the Groovy pipeline code shown in the previous block. At the bottom of the script area is a 'try sample Pipeline...' button. At the very bottom are 'Save' and 'Apply' buttons, with 'Use Groovy Sandbox' checked.

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 Pipeline demo interface. On the left, there's a sidebar with options like Status, Changes, Build Now, Configure, Delete Pipeline, Full Stage View, Stages, Rename, Pipeline Syntax, and Credentials. The main area is titled "Stage View" and shows a single stage named "Success" with a status of "hello". A tooltip appears over the "191ms" duration, which is highlighted with a yellow box. Below the stage view, there's a "Permalinks" section with a list of recent builds.

Average stage times:
(full run time: ~3s)

Oct 13 15:10 No Changes

Success hello

191ms

Permalinks

- Last build (#1), 5 min 47 sec ago
- Last stable build (#1), 5 min 47 sec ago
- Last successful build (#1), 5 min 47 sec ago
- Last completed build (#1), 5 min 47 sec ago

1.8.



1.9.

This screenshot shows the "Stage Logs (hello)" page. At the top, there's a message: "Print Message - welcome to Jenkins pipeline (self time 16ms)". Below it, the "Stage View" shows the "Success" stage. A tooltip highlights the "Logs" button, which is also highlighted with a yellow box. The "Permalinks" section at the bottom is identical to the previous screenshot.

Print Message - welcome to Jenkins pipeline (self time 16ms)

welcome to Jenkins pipeline

Build Now

Configure

Delete Pipeline

Full Stage View

Stages

Rename

Pipeline Syntax

Credentials

Success hello

191ms

Permalinks

- Last build (#1), 5 min 47 sec ago
- Last stable build (#1), 5 min 47 sec ago
- Last successful build (#1), 5 min 47 sec ago
- Last completed build (#1), 5 min 47 sec ago

REST API Jenkins 2.516.1

Click on Logs as shown in the screenshot below:

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

The screenshot shows the Jenkins Stage View for a pipeline named 'hello'. At the top, there is a header bar with the title 'Stage Logs (hello)'. Below this, a dark grey bar displays the message 'Print Message -- welcome to Jenkins pipeline (self time 16ms)'. The main area contains the log output: 'welcome to Jenkins pipeline'. On the left side, there are several buttons: 'Build Now', 'Configure', 'Delete Pipeline', and 'Full Stage View'. On the right side, there is a button labeled 'hello'. The overall interface is clean and modern, typical of the Jenkins UI.

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