

LAB EXERCISE 8

SETTING UP MAVEN BUILD JOB IN JENKINS

OBJECTIVE: TO SET UP MAVEN BUILD JOB IN JENKINS FOR AUTOMATING THE BUILD PROCESS, ENABLING CONTINUOUS INTEGRATION TO ENHANCE THE SOFTWARE DEVELOPMENT LIFECYCLE

TOOLS REQUIRED: JENKINS

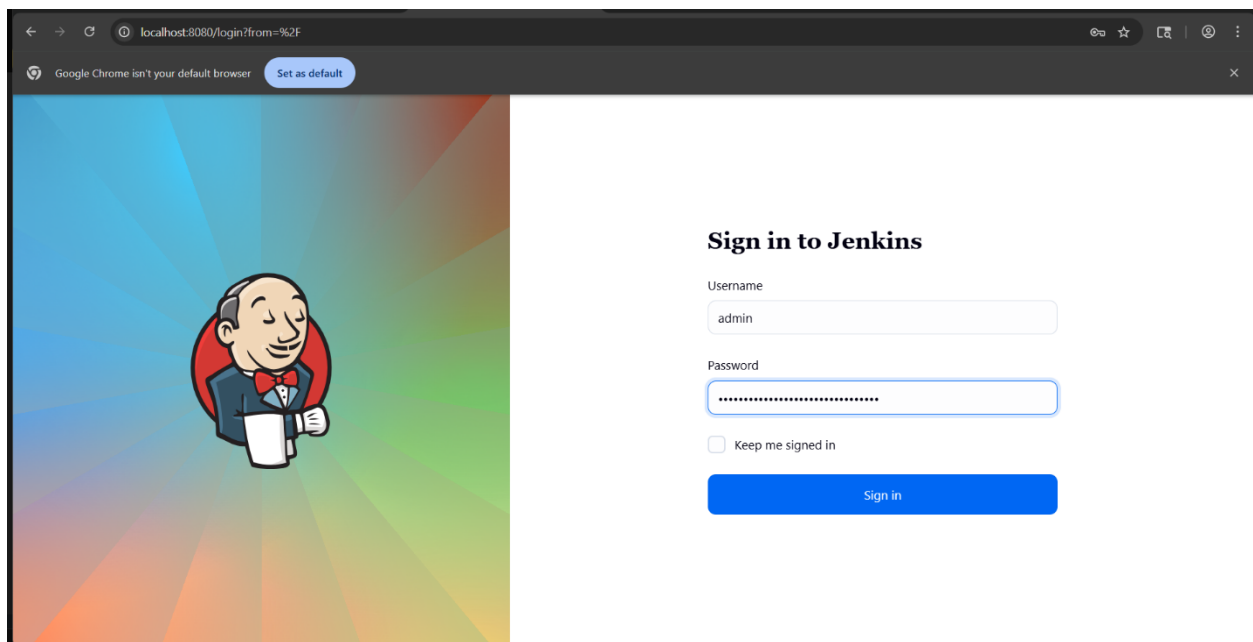
PREREQUISITES: YOU NEED TO HAVE A JENKINS UP AND RUNNING.

STEPS TO BE FOLLOWED:

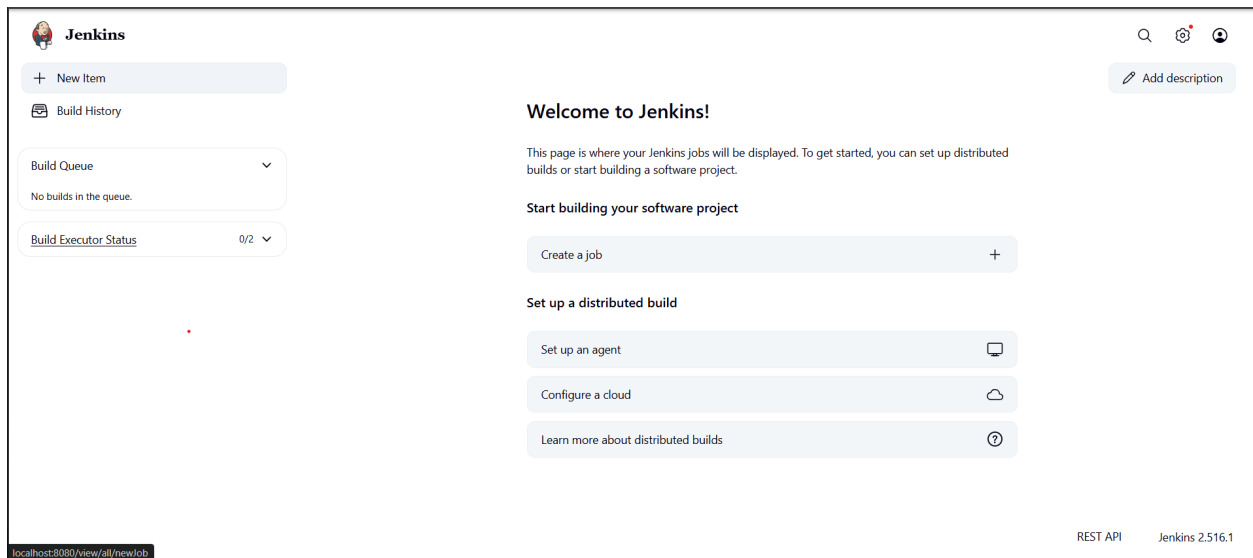
1. LOG IN TO JENKINS CI TOOL AND CONFIGURE MAVEN FREESTYLE JOB

STEP 1: LOG IN TO JENKINS CI TOOL AND CONFIGURE MAVEN FREESTYLE JOB

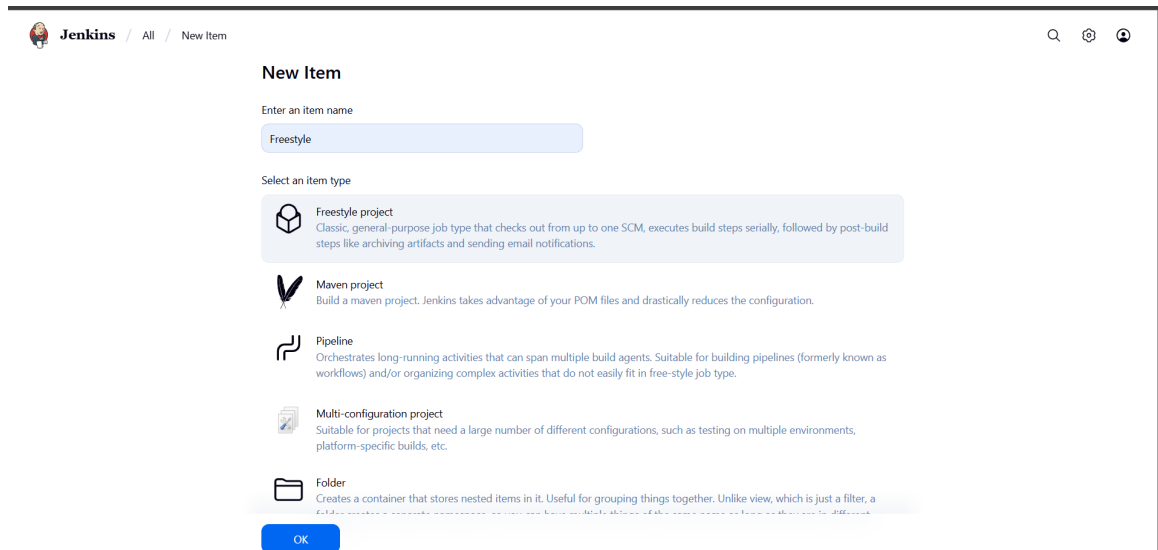
1. LOG IN TO JENKINS USING YOUR CREDENTIALS



2. IN THE JENKINS DASHBOARD, CLICK ON **NEW ITEM**



3. SELECT THE **FREESTYLE PROJECT** WHILE CREATING A JENKINS JOB, PROVIDE A CUSTOM JOB NAME, AND CLICK ON **OK**



4. NOW, IN THE CONFIGURE PAGE, NAVIGATE TO **SOURCE CODE MANAGEMENT** IN THE LEFT NAVIGATION BAR, SELECT **GIT**, AND THEN PROVIDE THE **GIT REPOSITORY URL**

Jenkins / Freestyle / Configuration

Configure

- General
- Source Code Management
- Triggers
- Environment
- Build Steps
- Post-build Actions

Source Code Management

Connect and manage your code repository to automatically pull the latest code for your builds.

☐ None ☒ Git

Repositories

Repository URL

https://github.com/DevankSilswal/DEVSECOPS-MAVEN-REPO.git

Credentials

- none -

+ Add

Advanced

Add Repository

Branches to build

Save Apply

5. NOW, NAVIGATE TO **BUILD STEPS**, CLICK ON **ADD BUILD STEP**, AND THEN SELECT THE OPTION **INVOKE TOP-LEVEL MAVEN TARGETS**

Jenkins / Freestyle / Configuration

Configure

- General
- Source Code Management
- Triggers
- Environment
- Build Steps
- Post-build Actions

☐ Inspect build log for published build scans
☐ Terminate a build if it's stuck
☐ With Ant

Build Steps

Automate your build process with ordered tasks like code compilation, testing, and deployment.

Add build step

Filter

Execute Windows batch command

Execute shell

Invoke Ant

Invoke Gradle script

Invoke top-level Maven targets

Run with timeout

... sending notifications, archiving artifacts, or triggering other jobs.

6. PROVIDE CLEAN INSTALL UNDER **GOALS** SECTION AND THEN CLICK ON **SAVE**

Jenkins / Freestyle / Configuration

Configure

- General
- Source Code Management
- Triggers
- Environment
- Build Steps
- Post-build Actions

Invoke top-level Maven targets

Maven Version

(Default)

Goals

clean install

Advanced

Add build step

Post-build Actions

Define what happens after a build completes, like sending notifications, archiving artifacts, or triggering other jobs.

7. YOU WILL BE NAVIGATED TO THE PROJECT AFTER CLICKING ON SAVE. NOW, CLICK ON **BUILD NOW** TO INITIATE A NEW BUILD, AND THE BUILD LOGS WILL DISPLAY THE PROGRESS OF THE BUILD PROCESS.

The screenshot displays the Jenkins web interface for a project named 'Freestyle'. On the left, a sidebar contains navigation links: Status, Changes, Workspace, Build Now, Configure, Delete Project, and Rename. The main area shows the 'Freestyle' project with a green checkmark icon. Below the project name, there are 'Permalinks' for the last build, stable build, successful build, and completed build, all indicating a duration of 2 minutes and 32 seconds. A 'Builds' section on the left shows a list of builds with a filter input and a dropdown arrow. The main content area displays the build logs for a successful build, showing the execution of Maven commands and the final success message.

```
[INFO] skip non existing resourceDirectory C:\Users\devank\.jenkins\workspace\Freestyle\src\test\resources
[INFO]
[INFO] --- compiler:3.11.0:testCompile (default-testCompile) @ upes.devops ---
[INFO] No sources to compile
[INFO]
[INFO] --- surefire:3.2.2:test (default-test) @ upes.devops ---
[INFO] No tests to run.
[INFO]
[INFO] --- jar:3.1.0:jar (default-jar) @ upes.devops ---
[INFO] Building jar: C:\Users\devank\.jenkins\workspace\Freestyle\target\upes-calc.jar
[INFO]
[INFO] --- install:3.1.1:install (default-install) @ upes.devops ---
[INFO] Installing C:\Users\devank\.jenkins\workspace\Freestyle\pom.xml to C:\Users\devank\.m2\repository\upes\devops\upes.devops\0.0.1-SNAPSHOT\upes.devops-0.0.1-SNAPSHOT.pom
[INFO] Installing C:\Users\devank\.jenkins\workspace\Freestyle\target\upes-calc.jar to
C:\Users\devank\.m2\repository\upes\devops\upes.devops\0.0.1-SNAPSHOT\upes.devops-0.0.1-SNAPSHOT.jar
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 5.974 s
[INFO] Finished at: 2025-08-28T12:24:30+05:30
[INFO] -----
Finished: SUCCESS
```

YOU CAN SEE THAT THE BUILD IS CONFIGURED SUCCESSFULLY.

BY FOLLOWING THESE STEPS, YOU HAVE SUCCESSFULLY SET UP MAVEN BUILD JOB IN JENKINS FOR AUTOMATING THE BUILD PROCESS, ENABLING CONTINUOUS INTEGRATION TO ENHANCE THE SOFTWARE DEVELOPMENT LIFECYCLE.