

Jenkins Setup and Freestyle Pipeline

Jenkins Setup

- Install Jenkins:
- Option 1: Using WAR file - Download from Jenkins official site, run: `java -jar jenkins.war`, access via `http://localhost:8080`.
- Option 2: Using Windows Installer - Download .msi installer and install as a Windows service.
- Option 3: Using Linux - Add Jenkins repo, install openjdk and jenkins, start service, access via `http://:8080`.
- Initial Setup - Enter admin password from secrets file, install suggested plugins, create admin user.
- Configure Jenkins - Install required plugins (Git, Maven, Pipeline, NodeJS, etc.), configure global tools (JDK, Git, Maven, Node).

Create a Freestyle Pipeline in Jenkins

- Create a New Job - Dashboard → New Item → Enter job name → Select Freestyle project → OK.
- Configure Source Code - Choose Git, enter repository URL, add credentials, select branch.
- Build Triggers - Options: Poll SCM, Build periodically, GitHub hook trigger, or Manual Build.
- Build Steps - Add Execute Shell/Windows Batch Command. Example (Linux): `mvn clean install`. Example (Windows): `mvn clean install`.
- Post-build Actions - Archive artifacts (e.g., `**/target/*.jar`), email notifications, publish reports.
- Run the Pipeline - Save configuration, go to dashboard, select job, Build Now, and check Console Output.