**JENKINS**

**How to run a code and how to integrate Jenkins with git**

**Step 1: Install Jenkins:**

Download Jenkins from the browser – While installing choose local server and not the one with username and password – complete the installation.

Link: <https://www.jenkins.io/download/>

A computer screen shot of a cartoon

Description automatically generated

**Step 2: Sign up in Jenkins:**

After installation type in the url: “localhose:8080” in your web browser – select all plug in installation – install the plugins – create a username, passwords and sign in to your Jenkins account

A screenshot of a computer

Description automatically generated

Step 3: Try to run a simple java code:

* In the Jenkins dashboard, left side navigation panel choose.

“new item”

A screenshot of a computer

Description automatically generated

* enter the name of the item (for e.g.: “javacode”) and choose freestyle project option.

A screenshot of a computer

Description automatically generated

* This will directly take you to the configuration page, if it doesn’t select dashboard then choose the name of the item (here it is javacode) and click on configure on the left side navigation panel .

A screenshot of a computer

Description automatically generated

* Once you click on configure, scroll down until you see the option build step click on it and list of options will appear, choose “execute windows batch command”. Type “cd” then enter the path where your java code is saved then type in the java cmd run command (“java name\_of\_file.java”).

Code:

“ cd C:\ProgramData\Jenkins\.jenkins\workspace\javacode

java sample.java ”

A screenshot of a computer

Description automatically generated

* Click on save then choose the build now on the navigation panel and wait until you see a green tick on the build history panel

A screenshot of a computer

Description automatically generated

* After the green tick click on the #6 appearing in the build history you will be taken to another page with a different set of navigation options there click on console output and you can see the output of your java code:

A screenshot of a computer

Description automatically generated

**HOW TO CONNECT GIT WITH JENKINS**

Step 1: Installation:

* Install git in your system. Link : <https://git-scm.com/download/win>

Step 2: Connecting git to Jenkins:

* Navigate to "Manage Jenkins" - "Manage Plugins" - "Available" tab, then search for and install the "Git plugins."

A screenshot of a computer

Description automatically generated

* Go to "Manage Jenkins" - " Tool Configuration."
* Scroll down to the "Git" section and add a Git installation. You need to specify the path to the Git executable on your system. This path should be where you have installed git in your system, and you have to add “/git.exe” at the end of the path.

A screenshot of a computer

Description automatically generated

* Save and click on "New Item" on the Jenkins dashboard.
* Enter a name for your job and select the type of job you want to create (e.g., Freestyle project or Pipeline).

A screenshot of a computer

Description automatically generated

* Click "OK" to proceed.
* Create a sample repository in your git- add a sample java code file with the class file save copy the repository url.
* In the configuration page of your Jenkins job, scroll down to the "Source Code Management" section.
* Select "Git" from the dropdown menu.
* Enter the repository URL.
* You may need to provide credentials if your repository requires authentication.

A screenshot of a computer

Description automatically generated

* Scroll down to branches to build option and change master to main.

A screenshot of a computer

Description automatically generated

* Scroll down till you see build steps – add build steps – choose execute windows batch command.
* Compile your java code using the command:
* “javac nameoffile.java

java classname”

A screenshot of a computer

Description automatically generated

* Save and click on dashboard – choose the name of item u just created – click on build now – wait for the build history number to turn green – click on the hash tagged number in the build history – click on console output. You have successfully connected your git repository with Jenkins:

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated