

Full Stack Development

Lab Jenkins 1

Running Jobs from the console

1. Lab objectives

This lab is designed so that you can become familiar with the Jenkins interface

2. Start Jenkins

Open a command window and go to the directory **C:\tools\Jenkins**. To start Jenkins use the command “**Jenkins.bat**” as shown here. Much of the resulting output is edited out but the last line shows that Jenkins is up and running. Do not close this window because that will stop Jenkins. Just minimize it until you want to shut Jenkins down.

```
C:\Users\Student>cd \tools\Jenkins

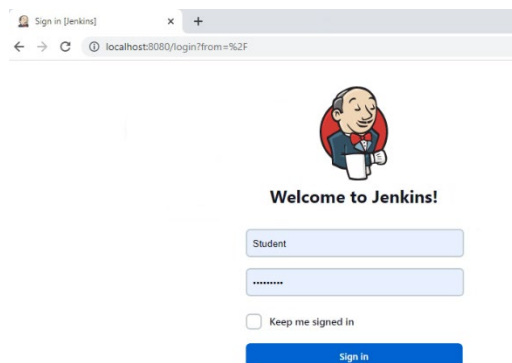
C:\Tools\Jenkins>Jenkins.bat
C:\Tools\Jenkins>java -Dhudson.plugins.git.GitSCM.ALLOW_LOCAL_CHECKOUT=true -jar jenkins.war
Running from: C:\Tools\Jenkins\jenkins.warwebroot: $user.home/.jenkins
2022-11-20 18:09:52.219+0000 [id=1] INFO winstone.Logger#logInternal: Beginning extraction from war file

--- stuff edited ---

2022-11-20 18:10:08.577+0000 [id=34] INFO jenkins.InitReactorRunner$1#onAttained: Completed initialization
2022-11-20 18:10:08.680+0000 [id=25] INFO hudson.lifecycle.Lifecycle#onReady: Jenkins is fully up and running
```

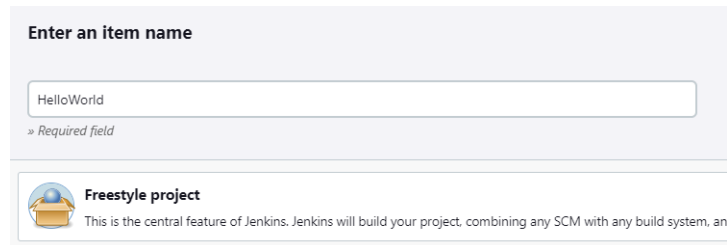
You can start Jenkins without using the bat file, but the file contains a start-up option necessary for this lab when you try to read from a local git repository.

Open up a browser and go to **localhost:8080** and log into Jenkins using the username **Student** and the password **Password1**. The way your machine was set up, if you are using Chrome, these should be autofilled.



3. Hello World Project


After you log in, you should see the main panel. Chose the **“Add Item”** option and create a new Freestyle Project called **“Hello World”**.



Enter an item name

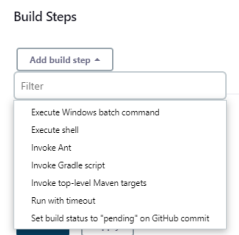
HelloWorld

» Required field

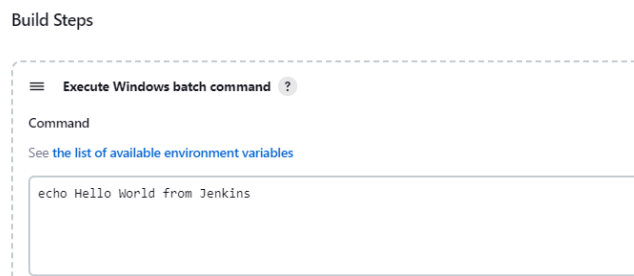
 **Freestyle project**
This is the central feature of Jenkins. Jenkins will build your project, combining any SCM with any build system, an

If the configuration window doesn't open, from the dashboard, select the project.

In the **build environment** section, open the box **add build steps** and choose **Windows batch command**.



Enter a windows command to be executed and save.



Build Steps

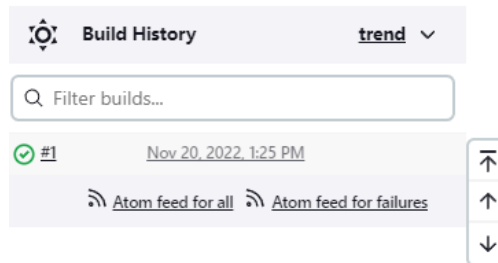
Execute Windows batch command ?

Command

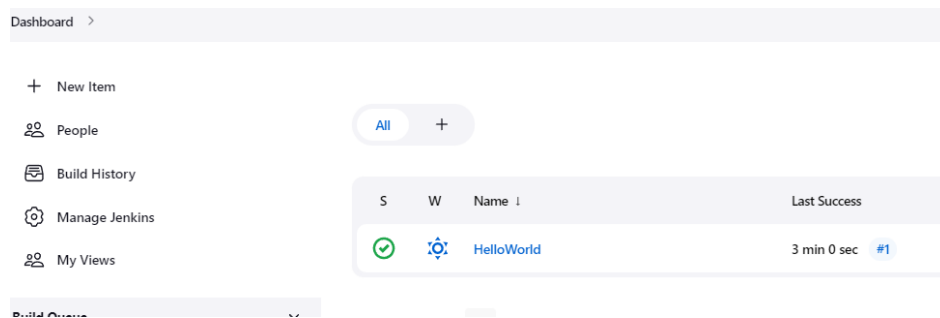
See [the list of available environment variables](#)

echo Hello World from Jenkins

Select the **Build Now** command and confirm that a build has taken place in the build history.



Go to the dashboard and check the status of the project builds there.

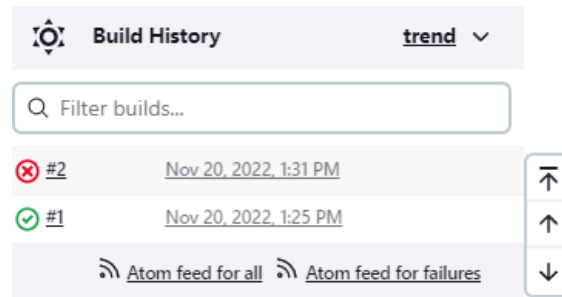


Experiment with running the build as is a few more times to see the build history.

4. Breaking the Project

Go back into the build steps and edit the command so that it says “exho” instead of “echo”.

Run the build and see it fail.



Open the build by clicking on it and open the console output to see the cause of the failure.

✖ Console Output

```
Started by user Student
Running as SYSTEM
Building in workspace C:\Users\micro\.jenkins\workspace\HelloWorld
[HelloWorld] $ cmd /c call C:\Users\micro\AppData\Local\Temp\jenkins9511558897338402886.bat

C:\Users\micro\.jenkins\workspace\HelloWorld>exho Hello World from Jenkins
'exho' is not recognized as an internal or external command,
operable program or batch file.

C:\Users\micro\.jenkins\workspace\HelloWorld>exit 9009
Build step 'Execute Windows batch command' marked build as failure
Finished: FAILURE
```

Go to the dashboard and run the build a number of times to see how the icon for the build history changes.

Then fix the project so that it builds successfully and rerun it a number of times to see how the icon changes.

End Lab