

DEVOPS PROFESSIONAL CERTIFICATION PROGRAM

Lab – 3: Jenkins + SCM

- Create Freestyle job and perform build process - Java code

Explore

- Perform integrating multiple repository / branches

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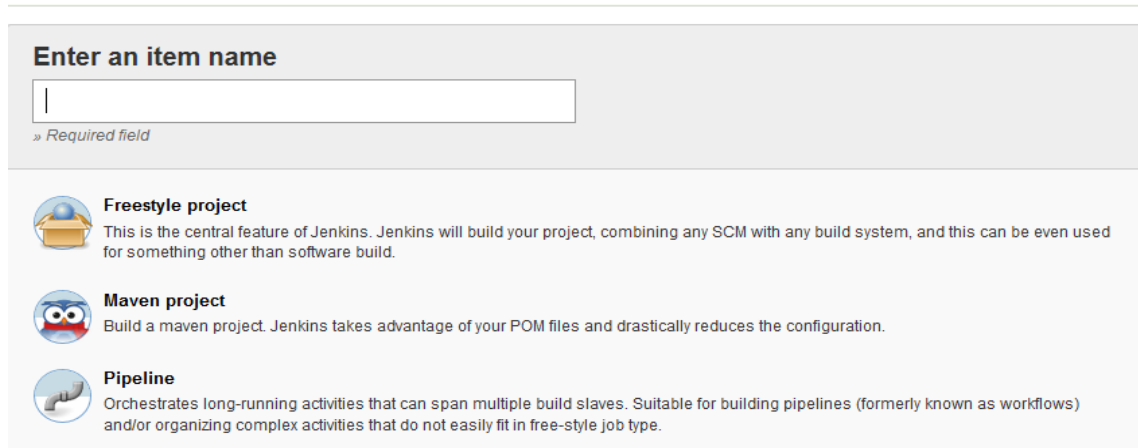


Create Jenkins Job (Freestyle)

Assumptions

- Jenkins is Up & Running
- Necessary plugins are installed and configured
- ✓ Create Freestyle Jenkins Job
- ✓ Configure SCM (Git/Gitlab)
- ✓ Construct Build processing steps within "Build" section
 - Construct shell commands to do build process (Java project)
- ✓ Run with "Build Now"
- ✓ Observe Build History and console output

1. Create application (As explained in Lab1 – Welcome.java)



Enter an item name

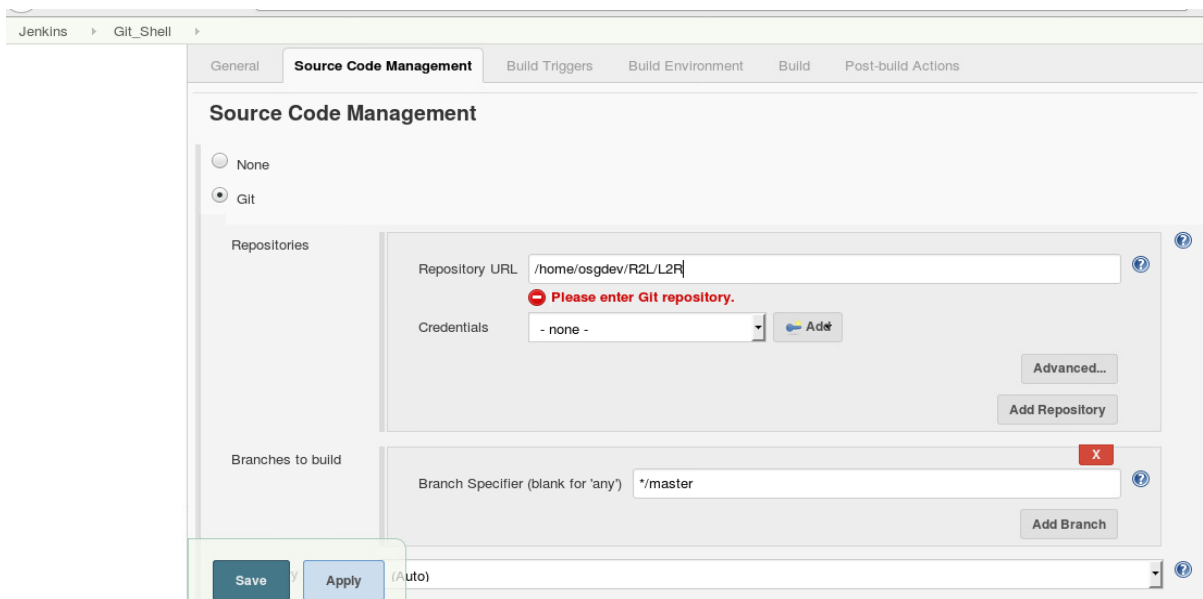
» Required field

Freestyle project
This is the central feature of Jenkins. Jenkins will build your project, combining any SCM with any build system, and this can be even used for something other than software build.

Maven project
Build a maven project. Jenkins takes advantage of your POM files and drastically reduces the configuration.

Pipeline
Orchestrates long-running activities that can span multiple build slaves. Suitable for building pipelines (formerly known as workflows) and/or organizing complex activities that do not easily fit in free-style job type.

2. Configure Git Repository Path (Local repository path)



Jenkins > Git_Shell >

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

Source Code Management

☐ None
☒ Git

Repositories

Repository URL

Please enter Git repository.

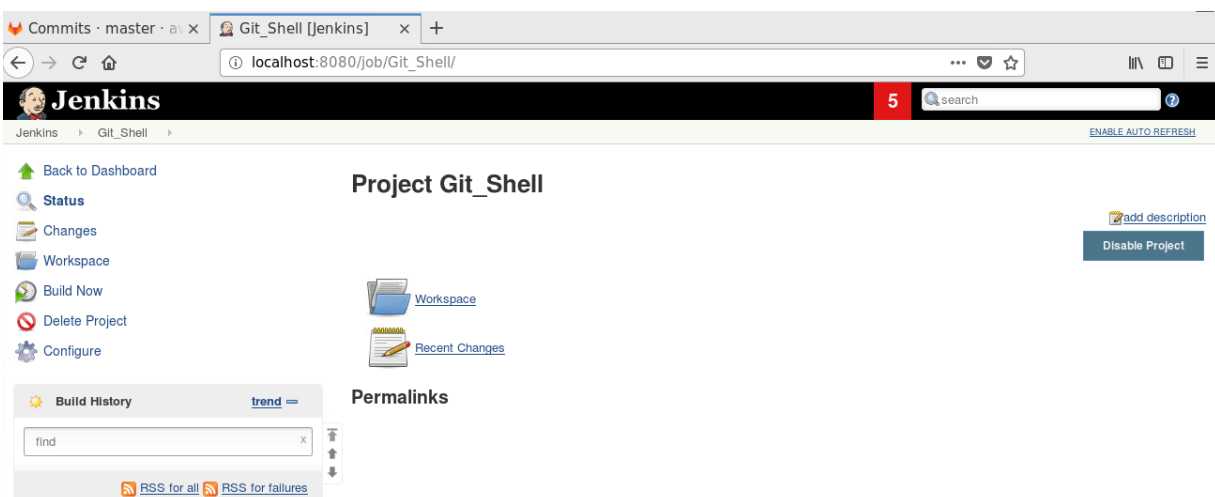
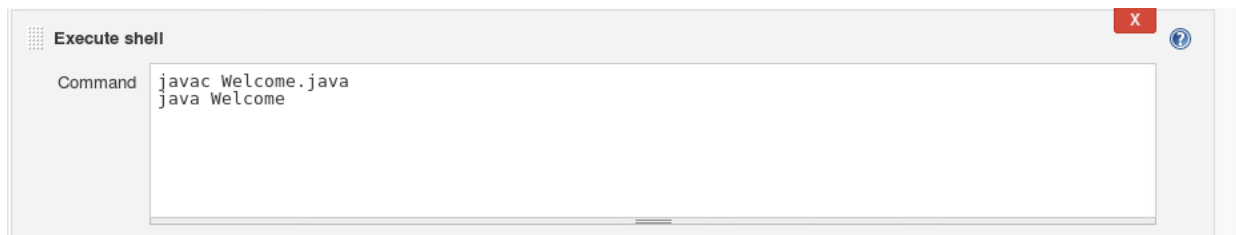
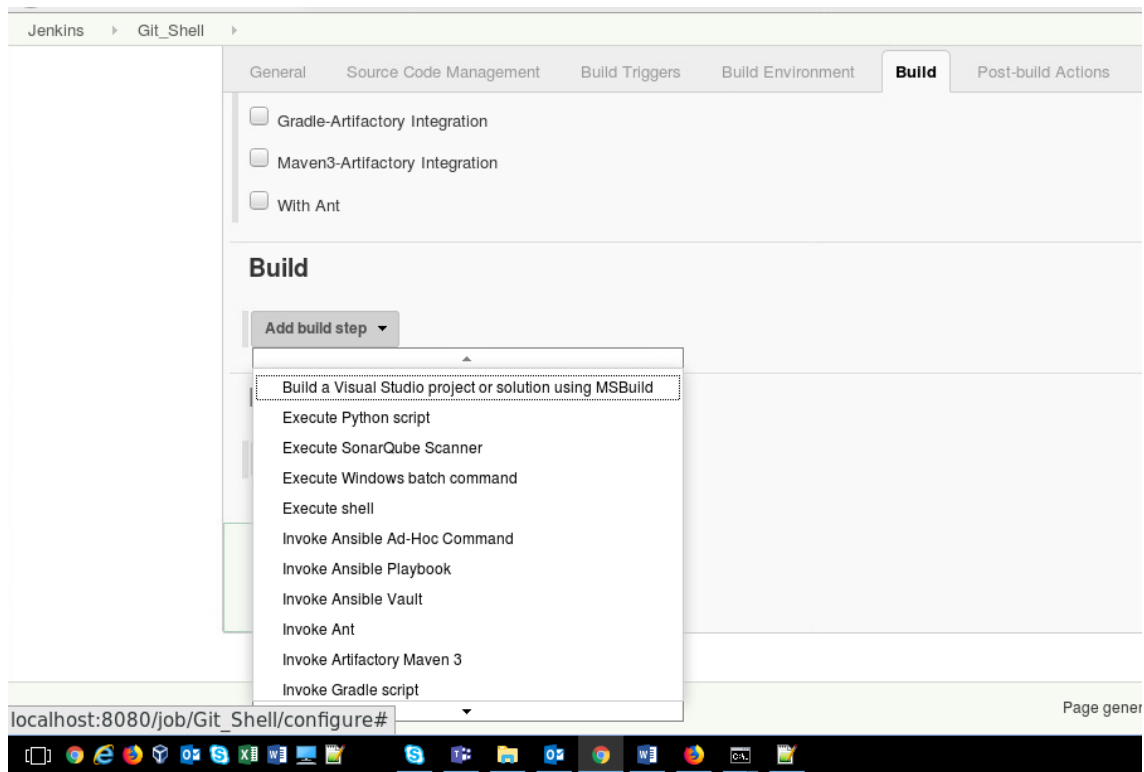
Credentials

Branches to build

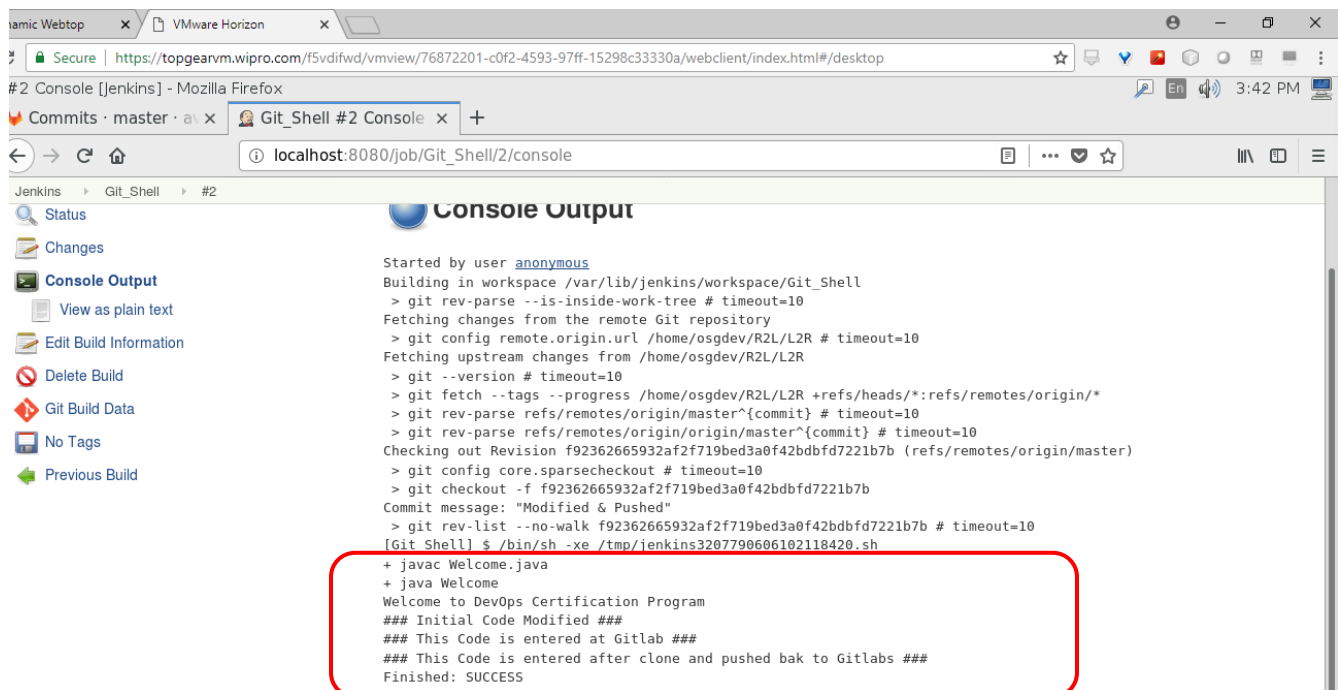
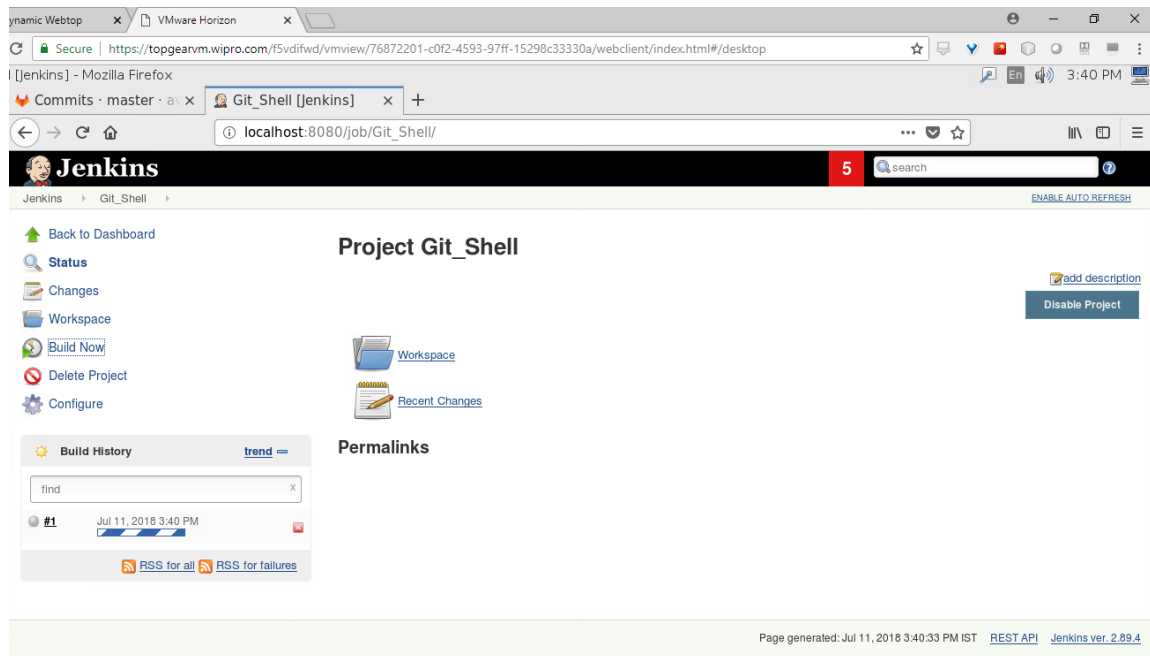
Branch Specifier (blank for 'any')

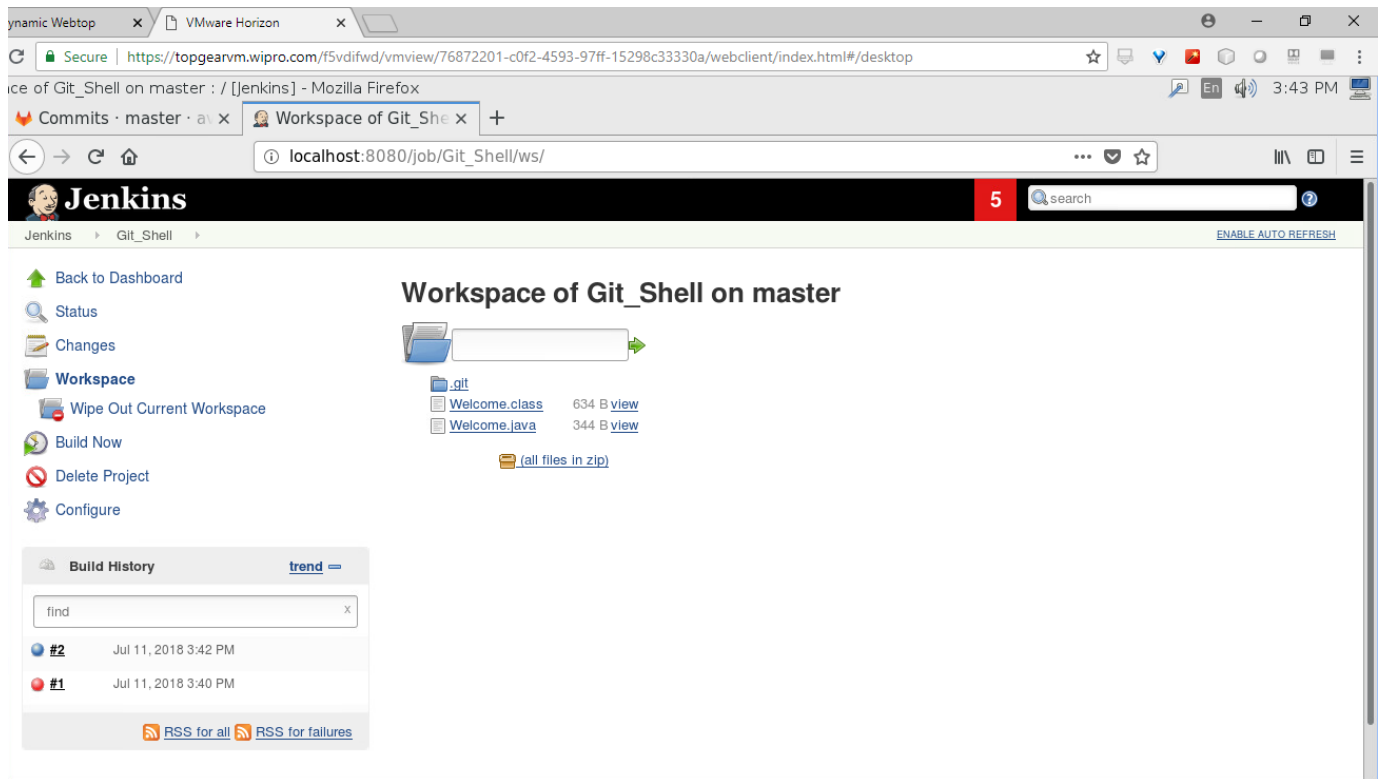
(Auto)

3. Configure Build – Execute Shell with commands – Apply and Save



4. Select Build Now to initiate the process – View Console Output & Workspace



**Note:**

- Change SCM configuration to access central repository URL (Gitlab) and observe execution
- Configure more than one Repository and construct build command accordingly to observe execution

Tips:

- Compile & Run java program (With package)
 - `javac <package>/<FileName>.java`
 - `java -classpath "FolderPath" <package.FileName>`
- Create jar file and execute it
 - create Jar=> `jar -cvf <JarName>.jar <FileName>.class`
 - execute jar=> `java -cp <JarName>.jar <MainClassName>`