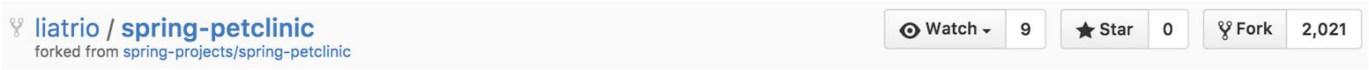
Chapter 3

Lab 3.3 - Create a Build Job

1. Navigate to the “Spring PetClinic” sample application on GitHub at https://github.com/liatrio/spring-petclinic.

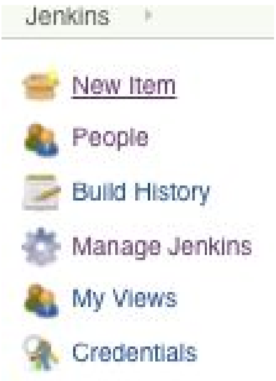
2. Fork “spring-petclinic” by clicking the “Fork” button at the top right corner.


liatrio / spring-petclinic
forked from spring-projects/spring-petclinic
Watch
9
Star
0
Fork
2,021

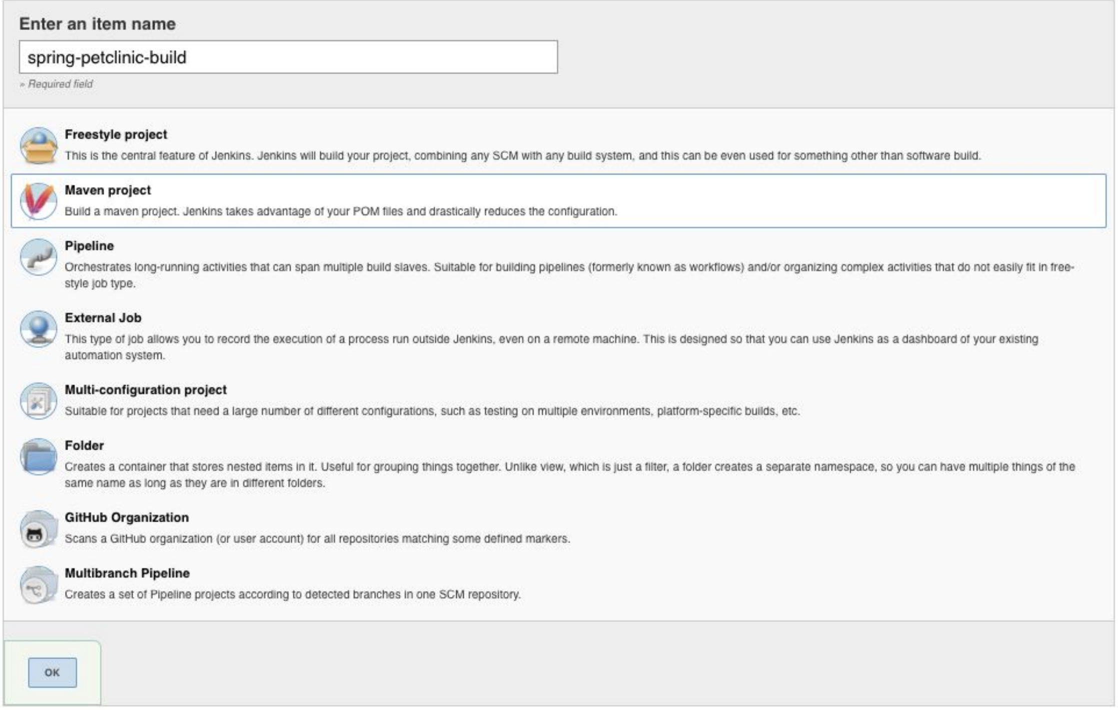
3. If prompted, select the repository.

Where should we fork this repository?

4. In Jenkins, select “New Item” to create a new job.



5. Enter a name for the job, such as **`spring-petclinic-build`**. Click on “Maven project” to specify that the job will be built using Maven. Click on “OK”.



Enter an item name

spring-petclinic-build

» 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.

External Job
This type of job allows you to record the execution of a process run outside Jenkins, even on a remote machine. This is designed so that you can use Jenkins as a dashboard of your existing automation system.

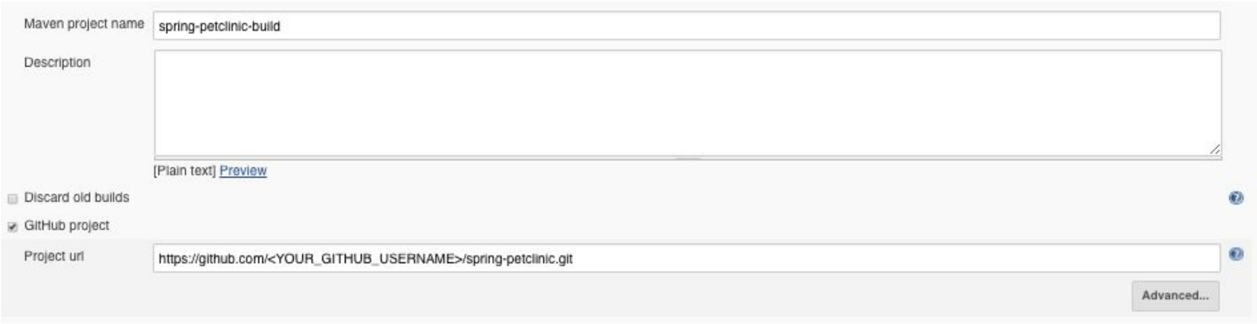
Multi-configuration project
Suitable for projects that need a large number of different configurations, such as testing on multiple environments, platform-specific builds, etc.

Folder
Creates a container that stores nested items in it. Useful for grouping things together. Unlike view, which is just a filter, a folder creates a separate namespace, so you can have multiple things of the same name as long as they are in different folders.

GitHub Organization
Scans a GitHub organization (or user account) for all repositories matching some defined markers.

Multibranch Pipeline
Creates a set of Pipeline projects according to detected branches in one SCM repository.

6. Select “GitHub project” and specify the fork’s URL in “Project url” field.



Maven project name: spring-petclinic-build

Description:

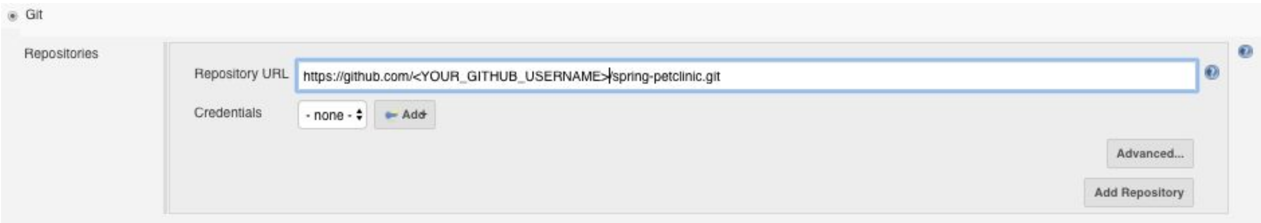
[Plain text] Preview

☐ Discard old builds

☑ GitHub project

Project url: https://github.com/<YOUR_GITHUB_USERNAME>/spring-petclinic.git

7. Under “Source Code Management” select “Git” and specify the fork's URL in “Repository URL” field.



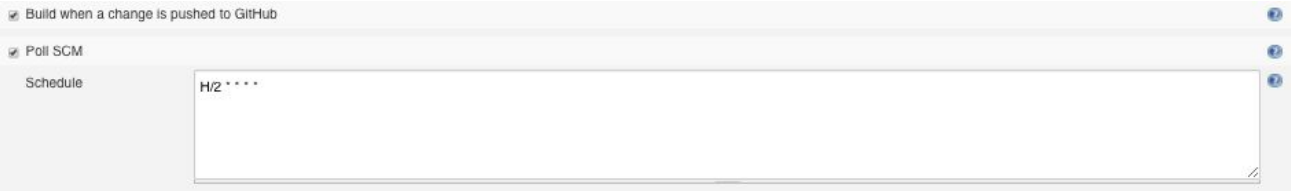
● Git

Repositories

Repository URL: https://github.com/<YOUR_GITHUB_USERNAME>/spring-petclinic.git

Credentials: - none -

8. Under “Build Triggers” check “Build when a change is pushed to GitHub” and “Poll SCM”. Under “Poll SCM” specify **`H/2 * * * *`** to poll the SCM every 2 minutes.

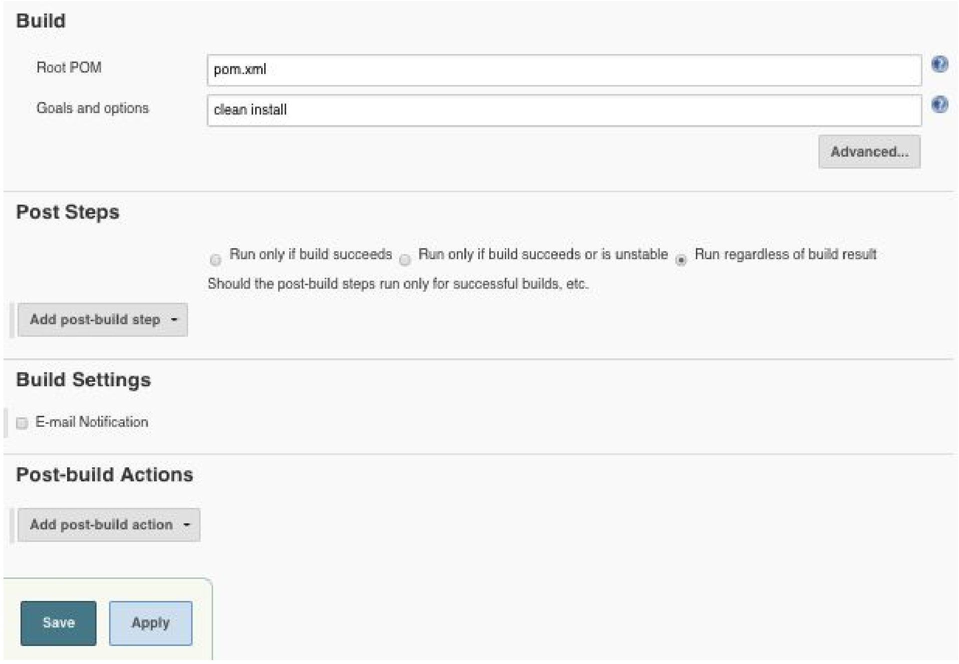


☑ Build when a change is pushed to GitHub

☑ Poll SCM

Schedule: H/2 * * * *

9. Under “Build” specify the “Goals and options” as **`clean install`**. Click on “Save”.



Build

Root POM: pom.xml

Goals and options: clean install

Post Steps

○ Run only if build succeeds ○ Run only if build succeeds or is unstable ● Run regardless of build result

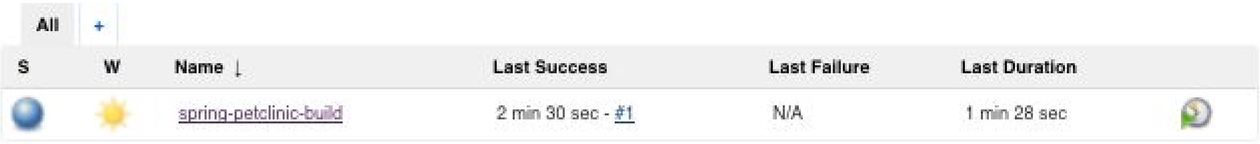
Should the post-build steps run only for successful builds, etc.

Build Settings

□ E-mail Notification

Post-build Actions

10. In Jenkins' home, the “spring-petclinic-build” should build within 2 minutes successfully. Optionally, click the clock icon on the far right to schedule a build.



S	W	Name ↓	Last Success	Last Failure	Last Duration	
●	☀	spring-petclinic-build	2 min 30 sec - #1	N/A	1 min 28 sec	

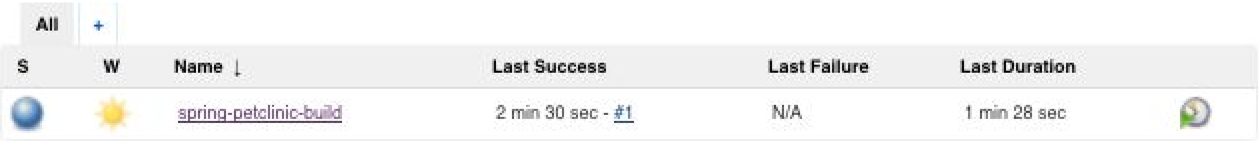
11. To test the automatic build job, clone the repository:

```
$ git clone https://github.com/<GITHUB_USERNAME>/spring-petclinic.git
```

12. Make a change to the **README.md** file and commit the change to GitHub:

```
$ cd spring-petclinic/
$ echo 'Jenkins is fun' | tee -a readme.md
$ git add .
$ git commit -m 'Changed readme.md'
$ git push origin master
```

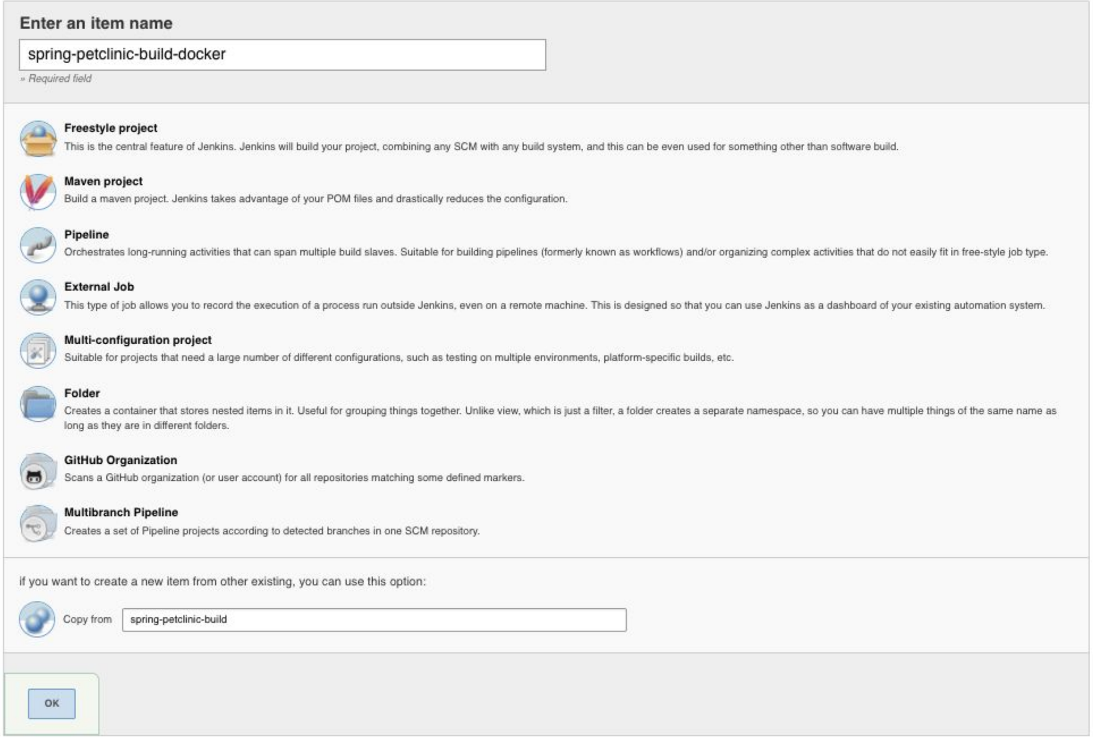
13. Check to see in Jenkins' home that the build job was triggered and built successfully.



S	W	Name ↓	Last Success	Last Failure	Last Duration
●	☀	spring-petclinic-build	2 min 30 sec - #1	N/A	1 min 28 sec

14. Click on “New Item” from Jenkins' home page.

15. Clone the “spring-petclinic-build” job to “spring-petclinic-build-docker”. It will be used in Lab 3.6. Click on “OK”, and then “Save”.



Enter an item name

spring-petclinic-build-docker

» Required field

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if you want to create a new item from other existing, you can use this option:

Copy from: spring-petclinic-build

Advanced Builds with Jenkins

Now that you have seen a simple manual Jenkins job creation, read more about how to automate the creation and management of many Jenkins jobs. For further information, please review these two documents created by Liatrio: Automating Jenkins and Blue Ocean Pipeline Automation.