Jenkins

Objectives:
- Install Jenkins
- Forking a github repo
- Configuring a build job in Jenkins

Description:
In this assignment you will begin by installing jenkins. You will then utilize jenkins to deploy the java application from the last project that we did. Jenkins will allow us to explore the idea of Continuous Integration. You should use a different vm than the production vm you created in the last assignment, although you will want to redo all the stuff you did in that assignment on the new machine. Also, don’t forget to do the wget from the previous assignment to fix the java bug.

Requirements:
Please READ all of the requirements first BEFORE doing any configuration to your vm.

You will be following some of chapter2 of the text. You should complete all the steps up through ‘Configuring a build job’ with a few exceptions. Here is an example as to how I did the project (after installing the VM and configuring Jenkins). (See below as how to install Jenkins)

Here is an example as to how to test your webhooks.

You will complete the assignment using an AWS t2.medium instance. If you use a t2.micro instance, you won’t have enough space and you will cry because you will have to start the project over on a medium instance. After you have passed off the assignment, I would shut it down (don’t delete it).

First, see below as to how to install Jenkins, the text instructions did not work. I notice that there are some tweaks that need to be made:

To install Jenkins an Amazon AMI

```
sudo yum update -y
sudo rpm --import https://pkg.jenkins.io/redhat-stable/jenkins.io.key
sudo yum upgrade
sudo amazon-linux-extras install epel -y
sudo amazon-linux-extras install java-openjdk11
sudo yum install jenkins java-11-openjdk-devel -y
sudo systemctl daemon-reload
sudo systemctl start jenkins
sudo systemctl status jenkins
```

You should be able to visit the ip address and port 8080 in your browser to see the jenkins interface.

To install Jenkins on Ubuntu AMI

```
wget -q -O - https://pkg.jenkins.io/debian/jenkins.io.key | sudo apt-key add -
sudo sh -c 'echo deb http://pkg.jenkins.io/debian-stable binary/ >
/etc/apt/sources.list.d/jenkins.list'
sudo apt update
sudo apt install jenkins
```

Immediately after installing, you should be able to visit this host port 8080 in the browser and continue as described in chapter 2 (Copy password from admin file). Install suggested plugins. (Don’t forget that you may need to open port 8080 in the security group)

Errata
When configuring Java within Jenkins, I first did a `sudo update-alternatives --display java` to see what java versions I had available on my Jenkins machine. (remember you have to set this vm up like your initial production one).

When configuring Maven, you should click to Install automatically.

Don’t fork their repository, fork mine (if you haven’t already). Any other screens that ask for a spring-clinic git repo, you should use yours.

Under Build Triggers the book mentions something about building when a change is pushed to GitHub. In the new version of Jenkins, it is [GitHub hook trigger for GITScm polling]. Make sure to select it.

**Check off procedure:**

This will be passed off in class. You should have your browser open to jenkins and demonstrate you have a successful build. You should also demonstrate that after making a change and doing a push to your github account that another build starts.