**Use Jenkins to create a job that spawns a Cloud Formation stack**

1. Launch an EC2 instance which can serve as a Jenkins server in the custom VPC (10.0.0.0/16) inside the public subnet (10.0.0.0/24)
2. Connect to this instance using putty to install Jenkins

* We must have Java installed in order to run Jenkins. Then run the following command to download the latest version of Jenkins.
* wget <http://mirrors.jenkins-ci.org/war/latest/jenkins.war>
* Launch the Jenkins in the background using the nohup command and verify its execution
* nohup java -jar jenkins.war --httpPort=8080 > jenkins.log 2>&1 &
* jobs (to check if the job is running)

1. Open Jenkins in the web browser using the Public DNS of the instance: http:// ec2-54-218-94-184.us-west-2.compute.amazonaws.com:8080

* Enter the password (go to /home/ec2 -user/.jenkins/secrets/initialAdminPassword directory from the terminal to see the password) and continue.
* Install suggested plugins and continue to Jenkins Management console

1. Manage Jenkins 🡪 Manage Plugins 🡪 select available and search for Jenkins-cloudformation-plugin 🡪 download and install after restart 🡪 enter the username “admin” and the password entered earlier
2. Create a free style job.

* Under the build environment, Select create AWS cloudformation stack 🡪 select the region 🡪 Give the link (URL) of the template in Cloud Formation recipe file/S3 URL. (.json) 🡪 enter Stack name 🡪 enter KeyName=AWSPublicKey 🡪 enter AWS access and secret key 🡪 uncheck automatically delete the stack when job completes.
* Under Post-build Actions, enter the stack configuration and save.

1. Click on build now to schedule the build. After the build is successful, click on the console output of the build to check the log.
2. Go the AWS management console, under cloudformation stack which is now created click on the outputs to see the URL of ELB. Open this link on the web browser to see the Apache test page.