



Assignment 1 Jenkins

Due 11:59PM Friday, July 22nd

- Use Vagrant (or similar provisioning tools like terraform, CloudFormation, resource manager, docker) to set up a Ubuntu virtual machine/container with Jenkins , Blue Ocean and SonarQube plugin.
- Use SonarQube to do a static analysis of petclinic opensource app (<https://github.com/spring-projects/spring-petclinic>)
 - (Either on same VM/container or sperate VM/container)
- Visualize build process with blue ocean
- Use Jenkins to build petclinic.jar
- Execute petclinic.jar and take a screen shot of the welcome screen.
- Copy petclinic.jar to your host machine for a later assignment

- Deliverables
 - Step by step instructions(30%) for accomplishing assignment including provisioning scrips for setting up Jenkins (15%) and automated/shell scripts (15%) **Grading 60%**
 - Screen shot of the “Petclinic welcome screen” and key screens **Grading 20%**
- One page response to question on last slide, **Grading 20%**
- Time taken broken down into Coding, Design, Tool usage, Learning tool
- Fully automated scripts including configuration of tools will receive additional 10% bonus point

Relevant web sites

- <https://www.jenkins.io/doc/book/installing/>
- <https://www.tothenew.com/blog/integrating-sonarqube-with-jenkins/>
- <https://www.jenkins.io/projects/blueocean/>
- <https://github.com/spring-projects/spring-petclinic>

One page discussion question

- How Jenkins plugins helps DevOps practices?
- What are the alternate ways for plugins in a typical CI practices?

Format for Deliverables -1

- One page reflection on question included in the assignment.
 - **/Q/** what do you mean by one page. Could I write more?
 - **/A/** You can write as much as you want. When we grade them, we will only read one page (**font size 11**) so anything over 1 page is wasted. However it is preferred in .TXT format
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Format for Deliverables -2

- List of files to be submitted:
- **"Answer.txt"** - This file should contain the answer for the question asked in the last page of every Assignment.
- **"Readme.txt"**- This file should contain the steps to be followed to complete the assignment.
- **"Time.csv"**- This file should contain the data related to the time spend by you for coding, design, etc. Please put only valid data in it. This data will be used for research purposes.
- Folder named **"SCREEN SHOTS"** - Please put all your screenshots within this folder.

Format for Deliverables -3

- Give proper names to your screenshot images
- Finally, zip all the files "**Answer.txt, Readme.txt, Time.csv and SCREEN SHOTS folder**" into a **single zip file** and submit it in canvas. The name for the Zip file should be "yourAndrewID Assignment#.zip". Eg: If your andrew id is devops17611@andrew.cmu.edu and you are submitting for assignment 2. Your zip file name should be "devops17611_Assignment2.zip" .