Network Directory Services Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Fall 2016 Midterm Review

**Section A: Virtualization Concepts**

At this point you should have a good understanding of system architecture or specifically valid use cases of when to use virtualization and when to use container technologies, such as Docker.

The goal of this section is that you can prove your understanding of both areas we have studied.

Please review the weekly objectives for Week 1 through 6 and be able to provide answers to the ‘Big Questions’ sections on E360.

**Section B: Scripting Basics**

You should be able to write a very basic BASH or Powershell script. Criteria of what the script needs to contain will be provided. However, the expectation here is that you will need to do your own research of what commands you need to run. This is an important skill that is expected by current and future employers you will work for.

**Section C: Docker Images and Containers**

As an alternative to VMs / Type-1 and Type-2 hypervisors…you should know by now that container technologies exist and there is a time/place where it makes more sense to leverage this instead of a fully featured VM.

You should be able to take a utility script or program that you have written and be able to get it to run inside of a container. For the Midterm, you will be asked to take your script you made in Section B and use it in this section. To be able to accomplish this, you will need to have a good understanding of how to build your own images and are able to run these images as containers.

The Docker documentation website is your friend, especially if you are unsure of what commands are available. There is also the built-in command line help system. For example, if you needed to see how to build images you could issue the following command:

docker build --help

Or, if you were unsure of how to run containers, you could check out the following command:

docker run --help

Other commands that might be of interest to you:

docker search --help

docker pull --help

*Note*: The run and build commands will be the main commands you will need to know how to use.

**Last but not least…an instructor sign-off will be required on the midterm.**

**Instructor Sign-Off**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_