# Project 12: Deploy, Install and configure system.

# **Important:** This exercise is going to ask you to assign and use your own timezone and current time. Please note that the exercise time will be using American/Chicago time and a random time period. Please make sure these two components are customized to the time of day you're completing the exercise and your current timezone

# Part1:

1. **Log in to the Rocky 8 server and determine which timezone should be used based on your location.**
2. **Update the system's timezone to America/Chicago.**
3. **Update the system time to match your current local time. Remember you need to turn off NTP first for this to work.**
4. **Display current time and date information.**
5. **Update the NTP time services to be 1.us.pool.ntp.org.**
6. **Turn NTP back on and apply the changes to the chronyd service.**
7. **Verify the new time servers are properly working with chronyd.**

**Part2:**

1. **Updating your system is an important part of being a systems administrator. However, sometimes just blindly performing a "yum update" on your system to update all packages is not-advised. Issue the proper command to view all packages that have an available update, but do not update all packages.**

**2. Search the yum repository for the Apache web server.**

**3. View information about the Apache web server package.**

**4. Download and install the Apache web server.**

**5. List the installed packages and verify the Apache web server is installed.**

**6. Issue the proper command to show all packages that provide the */var/www/html* directory.**

**7. Issue the command to update the Apache web server package.**

**8. Remove the Apache web server package**

**Part3:**

**yum groups allow the ability to install a group of packages based off of a selected package.**

1. **List available groups.**
2. **List all packages that belong to the "Security Tools" group. When looking at this, what packages will be installed?**
3. **Install the "Security Tools" group.**
4. **Undo the install of the "Security Tools" group.**

**Part4:**

Yum's job is to actually download the RPM package and all required dependencies on the system. It is best practice, when possible, to always use yum to download and install packages. This enables better dependency, update, and general package management for packages on your system. However, we will learn how to use the RPM command to install packages. We will also learn how to use the RPM command to list package information like files installed as part of the package and documentation installed with the package.

**1. Download the "nano" RPM package using yumdownloader or dnf download and change the package name to nano.rpm for this exercise.**

**2. Install the nano program.**

**3. Query to see if nano is in fact installed.**

**4. List all files installed as part of nano.**

**5. List all documentation parts of the RPM package and it's location.**

**6. Remove the nano package.**

**7. Query to see if the package is installed.**

**Part5:**

The goal of this exercise is to successfully enable third party repositories (we will be using the EPEL repository) using the yum-config-manager and also enabling/disabling the repository using configuration files.

Exercise details:

Repository Url’s: <https://download-ib01.fedoraproject.org/pub/epel/8/Everything/x86_64/>

1**. Using the yum config manager, enable the epel repository without gpg.**

**2. View and verify that the repository is in fact enabled on the system.**

**3. Using yum config manager, disable the epel repository.**

**4. Verify the repository is disabled.**

**5. Using yum config manager, delete the repository from the system.**

**6. Instead of using config manager, manually create the repo config file and enable the repository with the repo name "fedora-epel-repo".**

**7. View and verify that the repository is in fact enabled on the system.**

**8. Download the GPG key from the epel repository and configure the .repo file to use the GPG key using below url**

[**https://download-ib01.fedoraproject.org/pub/epel/RPM-GPG-KEY-EPEL-8**](https://download-ib01.fedoraproject.org/pub/epel/RPM-GPG-KEY-EPEL-8)

**9. Disable the repository on the system and verify that it is disabled.**

**10. Remove the repository from the system.**

**Part6: RedHat 7 and RedHat 8**

**Mount the rhel-server-7.x-x86\_64-dvd.iso and rhel-8.x-x86\_64-dvd.iso located in /run/media/username and directory to /repos/local (be sure to create /repos/local).**

**Note: your iso image location might be different. You know how to find it out.**

**2. Manually create the repo configuration file in the proper location with the proper information, assume no GPG.**

**3. For testing, disable or delete all other repos execpt the local repo. Please note, if you delete them you will need to rebuild your lab server.**

**4. Clean previous yum repo information (clean the cache).**

**5. View all enabled repos.**

**6. Download and install emacs and, on the install screen, verify it is being installed from the local-repo.**

**7. Remove emacs.**

**8. Configure the local.repo to use GPG to verify that the packages are legitimate. (This is most commonly used for remote repositories. However, for the exercise it will be easier since it's all included as part of the iso and local machine.)**

**Part7: Apply a kernel update to rocky8**

**One of the systems in your inventory needs to have a kernel update applied. However, it cannot use the YUM package management systems to apply the update. You will need to manually download the RPM file for the appropriate kernel update and then apply it at the command line.**