Tutorial Set 3

3.1 Navigating the Directory Tree

1. The directory in which you are working at the current time is called your "working directory" The command to display your working directory is pwd, which stands for "print working directory". Give the command to find out the directory path to your current location:
   `pwd`

2. Display the names of the objects in your current directory:
   `ls`

3. Display long listing of the current directory ("el es dash el", note: not ones)
   `ls -l`

4. Change to the parent directory:
   `cd ..`

5. List the contents of the current directory. Note the ownership and group membership.
   `ls -l`

6. Change to the root directory of the Linux file system
   `cd /`

7. Using an absolute path, change to the mnt directory
   `cd /mnt`

8. Using a relative path, change to the etc directory
   `cd ../etc`

9. Give the following command and note where you end up:
   `cd`

10. Change to /mnt directory
    `cd /mnt`

3.2 More Navigation

1. Change to your user home directory using an absolute path

   _____

   Change to /etc directory
   `cd /etc`

2. Change to your user home directory using a relative path

   _____

3. Use the cd command to go to the /usr/bin directory.

   _____

4. Then type
   `cd`

   and press Enter. Where are you?

   _____

5. Again, use the cd command, but this time go to the / directory.

   _____

6. Type the following command (symbol tilde) and note where you are
   `cd ~`

   _____

7. Next, type the following command (symbol dash) and note where you are
   `cd -`

8. Change to a variety of different directories (explore!) and after 2-3 changes, give the cd dash command. Repeat this several time from different subdirectories. What does the dash do?

   _____

9. Change to /etc directory again
   `cd /etc`

10. Now change to your user home directory using the shortcut symbol tilde

    _____

3.3 Creat a Subtree Called 'usr'

1. Display the names of the objects in your current directory:
   ```
   ls
   ```

2. Make sure you are in the bash shell.
   ```
   bash
   ```

3. Display the names of the objects in your current directory.
   ```
   ls
   ```

4. Confirm that you are in your home directory
   ```
   pwd
   ```

5. Create a subdirectory called usr
   ```
   mkdir usr
   ```

6. Change to the new subdirectory usr (Is this a relative or absolute pathname?)
   ```
   cd usr
   ```

7. Create a subdirectory called staff
   ```
   mkdir staff
   ```

8. Create the following subdirectories
   ```
   mkdir staff/adams staff/joan staff/brian staff/zeke staff/bill reports meetings
   ```

9. Create the following directories
   ```
   mkdir staff/reports/rpt{A,AA,AB,C,3,75} notes{1,2,3,4,5}
   ```

10. Using cd, ls, and pwd, navigate your newly created subdirectory, starting with usr as the top of your tree, and draw (on paper) the structure of the subtree.

11. Once you have the drawing completed, explore the -R option of the ls command. Compare the result to your drawing.