- Contact your instructor with your questions about the assignments.
- The student must insure all the answers are free from any malware.
- The student must ensure all answers are legal as defined by the class syllabus.
- All parts of your answers must be neat and easy to read.
- Paragraphs are at least four properly constructed English sentences.
- Embedding documents within documents does not work with the D2L Bright Space assignments.
- Plagiarism will not be tolerated.
- Unless noted, all lab sections must be done as unprivileged login.
- Labeling answers is highly recommended.

8. **Lab 08: vi, Compression, Web Server and Compiling**
    8.1. Upload each answer to the D2L Bright Space Assignment section 8.1 before the due date found in the 2224a.pdf document. Submit the entire text file generated by the script command or similar containing the following.
        8.1.1. Provide evidence of successfully using the vi editor to create a file named **vi-01.txt** with 5 unique lines of at least 15 characters each line.
        8.1.2. Provide evidence of successfully saving the file **vi-01.txt** using the vi editor.
        8.1.3. Provide evidence of successfully exiting the vi editor.
        8.1.4. Provide the output of **vi-01.txt** using cat to show a successful edit.
        8.1.5. Provide evidence of successfully opening the file **vi-01.txt** with vi editor.
        8.1.6. Provide evidence of successfully changing five characters in the file **vi-01.txt** using the vi editor.
        8.1.7. Provide evidence of successfully saving the modified file **vi-01.txt** using the vi editor.
        8.1.8. Provide evidence of successfully exiting the vi editor.
        8.1.9. Provide the output of **vi-01.txt** using cat to show a successful edit.
        8.1.10. Provide evidence of successfully opening the file **vi-01.txt** with vi editor.
        8.1.11. Provide evidence of successfully changing three characters in the file **vi-01.txt** using the vi editor.
        8.1.12. Provide evidence of successfully exiting the vi editor without saving the file.
        8.1.13. Provide the output of **vi-01.txt** using cat to show an unsuccessful edit.
        8.1.14. Identify if an AI type program was used to complete this lab section. If an AI program is used, identify the AI system used.

    8.2. Upload each answer to the D2L Bright Space Assignment section 8.2 before the due date found in the 2224a.pdf document. Submit the entire text file generated by the script command or similar containing the following.
        8.2.1. Create a directory in your home directory named **~/zip** and copy at least five labs into the directory.
        8.2.2. Create a directory in your home directory named **~/gzip** and copy all the files in ~/zip into **~/gzip**.
        8.2.3. Create a directory in your home directory named **~/bzip2** and copy all the files in **~/zip** into **~/bzip2**.
        8.2.4. Create a directory in your home directory named **~/xz** and copy all the files in **~/zip** into **~/xz**.
        8.2.5. Log the command line using the zip algorithm to compress all the files in **~/zip**. Provide the output of the file command showing the compression is zip. This requires the use of the zip program.
        8.2.6. Log the command line using the zip algorithm uncompressing all the files in **~/zip**. Provide the output of the file command showing all the files are successfully uncompressed.
        8.2.7. Log the command line using the gzip algorithm to compress all the files in **~/gzip**. Provide the output of the file command showing the compression is zip. This requires the use of the gzip program.
        8.2.8. Log the command line using the zip algorithm uncompressing all the files in **~/gzip**. Provide the output of the file command showing all the files are successfully uncompressed.
        8.2.9. Log the command line using the bzip2 algorithm to compress all the files in **~/bzip2**. Provide the output of the file command showing the compression is bzip2.
        8.2.10. Log the command line using the bzip2* algorithm uncompressing all the files in **~/bzip2**. Provide the output of the file command showing all the files are successfully uncompressed.
        8.2.11. Log the command line using the xz algorithm to compress all the files in **~/xz**. Provide the output of the file command showing the compression is xz.
        8.2.12. Log the command line using the xz algorithm to uncompressing all the files in **~/xz**. Provide the output of the file command showing all the files are successfully uncompressed.
        8.2.13. Identify if an AI type program was used to complete this lab section. If an AI program is used, identify the AI system used.

    8.3. Upload each answer to the D2L Bright Space Assignment section 8.3 before the due date found in the 2224a.pdf document. Submit a Portable Document Format (PDF) or word processing file containing the following.

8.3.1. Create a personalized, non-offensive web page on your class virtual Linux system. Provide evidence of accessing your web page from the loopback address on your class virtual Linux system.

8.3.2. Provide evidence of accessing your web page from a host other than your class virtual Linux system.

8.3.3. Provide your virtual Linux system firewall settings.

8.3.4. Provide the output of "httpd -v". You might need root privileges.

8.3.5. Identify if an AI type program was used to complete this lab section. If an AI program is used, identify the AI system used.

8.4. Upload each answer to the D2L Bright Space Assignment section 8.4 before the due date found in the 2224a.pdf document. Submit the entire text file generated by the script command or similar containing the following.

8.4.1. Provide evidence of successfully compiling a program not installed on your class Linux system or OSSEC. Please label your answer.

8.4.2. Provide evidence the newly compiled program works correctly. Please label your answer.

8.4.3. In a paragraph, explain how you will keep the newly compiled program updated.

8.4.4. Identify if an AI type program was used to complete this lab section. If an AI program is used, identify the AI system used.

8.4.4.1.