**Lab Report – Working with Text Files in the CLI**

**Objectives**

In this lab, I explored Linux text editors and configuration files. The objectives were:

* To understand graphical text editors.
* To practice command line text editors.
* To edit and manage configuration files for system services.

**Part 1: Graphical Text Editors**

**Step 1: Open SciTE from the GUI**

* Logged in as user analyst (password: cyberops).
* Opened **SciTE** from:  
  Applications > CyberOPS > SciTE.
* Created and saved space.txt in /home/analyst.

**Question:** Could you immediately find space.txt in the SciTE file dialog?  
**Answer:** No. SciTE only shows known extensions. To view .txt, select **All Files (\*)**.

**Step 2: Open SciTE from the Terminal**

* Used the terminal to open the file:
* scite space.txt

**Question:** Why was the prompt not shown in the terminal?  
**Answer:** Because the terminal was running SciTE and unable to receive commands until the process was stopped.

Closed SciTE with **CTRL+C**.

**Part 2: Command Line Text Editors**

* Opened space.txt with nano:
* nano space.txt
* Observed that the text appeared truncated (single long line).
* Used **Home/End** to navigate.

**Question:** What character does nano use to represent text that continues beyond the screen?  
**Answer:** The > or $ symbol, depending on nano version.

Exited nano with **CTRL+X**.

**Part 3: Working with Configuration Files**

**Step 1: Locating Configuration Files**

* Displayed .bashrc content:
* cat .bashrc
* Learned that user-specific configurations are stored in the home directory (/home/analyst) while system-wide configuration files are stored in /etc.

**Question:** Why are user configs stored in the home directory and not /etc?  
**Answer:** Regular users do not have permission to write to /etc. Storing configs in the home directory allows customization without root access.

**Step 2: Editing and Saving Configuration Files**

* Opened .bashrc with SciTE and changed color code from **32 (green)** to **31 (red)**.
* Saved and opened a new terminal → prompt appeared **red**.

**Question:** Did the already-open terminal change color?  
**Answer:** No. .bashrc is executed only when a new terminal session starts.

* Edited .bashrc again with nano, changed color code to **33 (yellow)**, saved file, and reloaded bash with:
* bash
* Prompt appeared **yellow**.

**Step 3: Editing Service Configuration Files**

* Edited nginx custom configuration file:
* sudo nano -l /etc/nginx/custom\_server.conf
* Changed:
  + Port: listen 8080;
  + Root directory: /usr/share/nginx/html/text\_ed\_lab/
* Restarted nginx:
* sudo nginx -c custom\_server.conf
* Opened Firefox → visited 127.0.0.1:8080 → nginx page loaded successfully.

**Question:** What did the error message refer to?  
**Answer:** Missing favicon.ico file, not a fatal error.

* Stopped nginx:
* sudo pkill nginx

**Question:** Did the web page still load after stopping nginx?  
**Answer:** No.

**Challenge Question**

**Q:** Can you edit the /etc/nginx/custom\_configuration.conf file with SciTE?  
**Answer:**  
Yes. Run the command:

sudo scite /etc/nginx/custom\_configuration.conf

This opens the file in SciTE with root permissions. Make edits, save, and reload nginx with:

sudo nginx -s reload

**Reflection**

* Learned the difference between **graphical editors** (SciTE) and **CLI editors** (nano).
* Understood where user-level vs system-level configuration files are stored.
* Practiced editing . bashrc and nginx configuration files.
* Reinforced the importance of **permissions** and restarting services after configuration changes.