

SAT1: 002: LINUX File Manipulation

Overview

This lab will teach the basics of the vi command line text editor and the foundations for scripting.

Time: 45 Minutes

Learning Objectives

Upon completion of this lab, you should be able to:

Use the Vi text editor to move around and edit a text file.

Resources

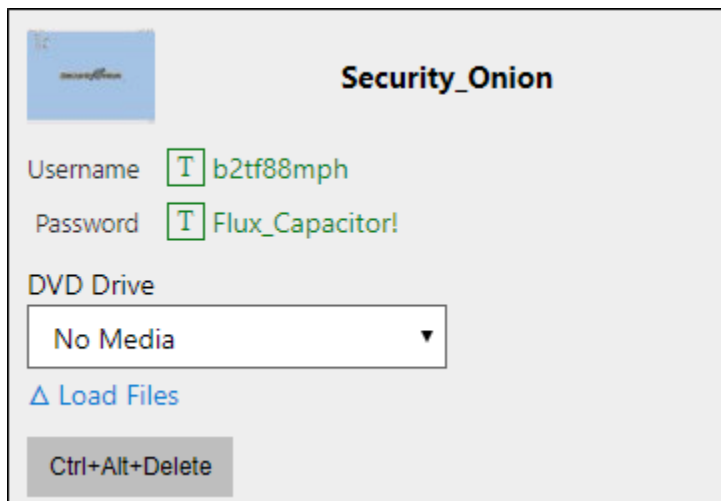
The following documents have been provided to assist you in this lab.

[LINUX BIN/BASH Cheat Sheet](#)

[VI/VIM Cheat Sheet](#)

Log in to the Lab Machine

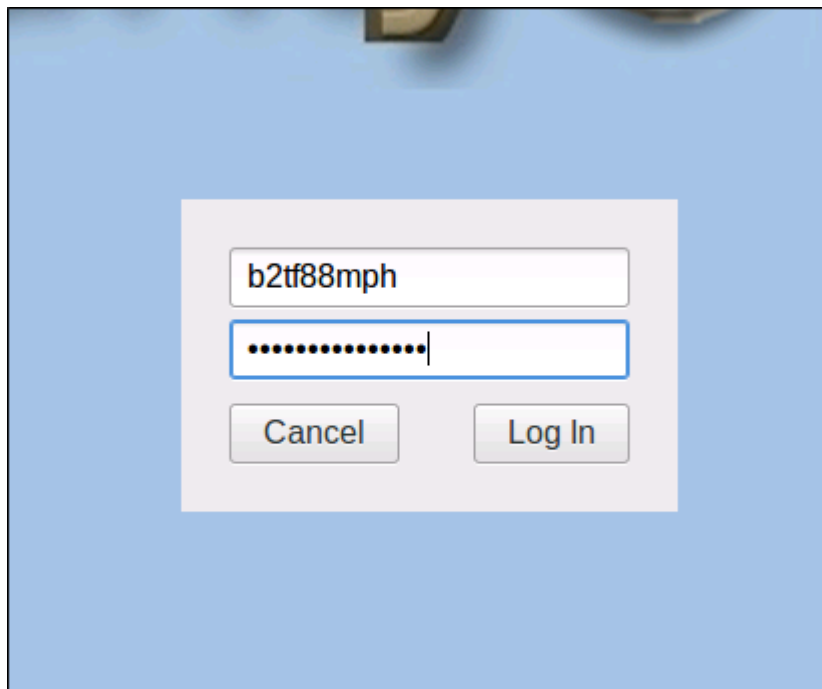
Select the **Security_Onion** machine on the Machines Tab.



The screenshot shows a login window for a machine named "Security_Onion". In the top left corner, there is a small blue square icon with the text "Security Onion" below it. The main title "Security_Onion" is displayed in a bold, black font at the top right. Below the title, there are two input fields: "Username" with the value "b2tf88mph" and "Password" with the value "Flux_Capacitor!". Each input field has a green square icon with a white 'T' to its left. Below the password field, there is a "DVD Drive" section with a dropdown menu currently showing "No Media". At the bottom left, there is a blue link that says "Load Files" with a small triangle icon to its left. At the bottom center, there is a grey button with the text "Ctrl+Alt+Delete".

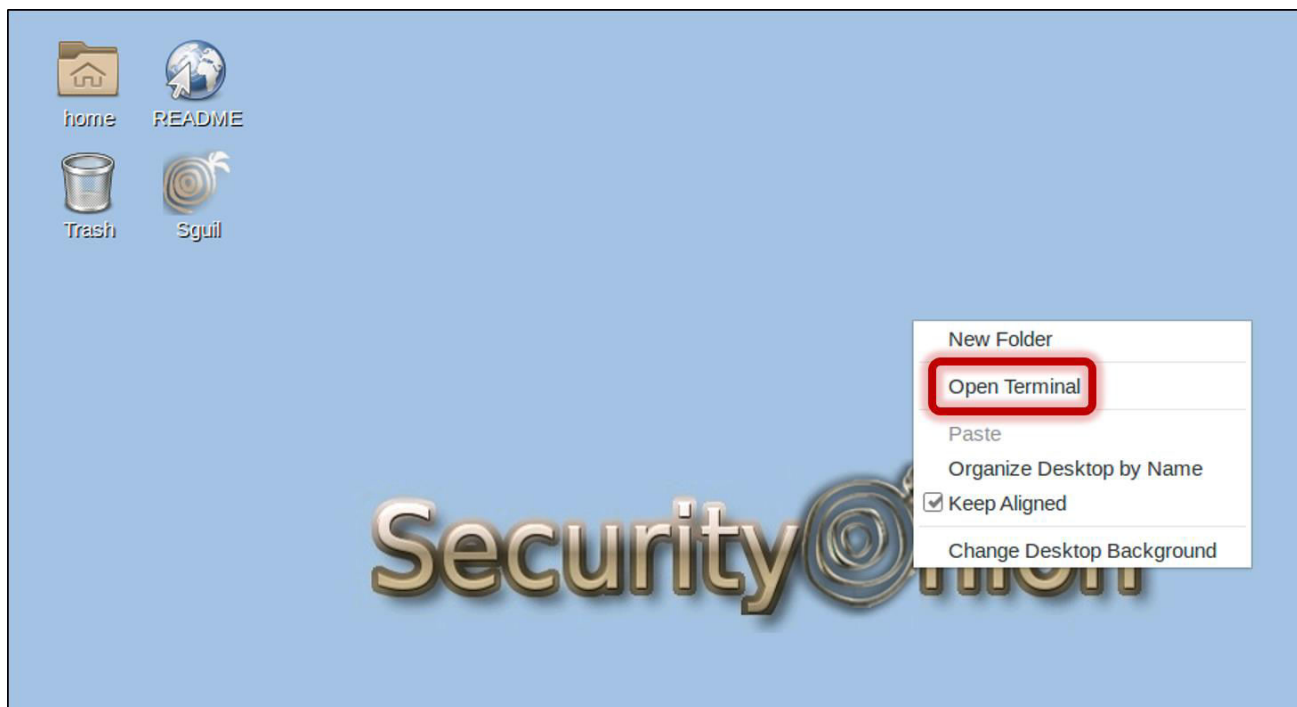


Enter the Username and Password on the **Security_Onion** machine, and click Log In.



1.0 Introduction to the Vi Text Editor

1. Right click on the **Security_Onion** desktop and select Open Terminal to open a command line terminal.



1.0 Using the Vi Text Editor



1.8 Use the previous commands to enter the following hashes into the hash file:

```
f fee7fa14d1381253b12639afe68e1e312dddc51
f29a60d457ca50ccac4b601dc93f378d5d2e9b07
ca88ba2ec9e24e4f57bf17c20a791ec3cbbc1f67
8808666f2f900537329245f6f70dc79838bfe6fc
4357f8077d6554683fe58524dea03adceeb50d66
```

```
b2tf88mph@b2tf88mph-Virtual-Machine: ~/Documents/malware/analysis
File Edit View Search Terminal Help
f fee7fa14d1381253b12639afe68e1e312dddc51
f29a60d457ca50ccac4b601dc93f378d5d2e9b07
ca88ba2ec9e24e4f57bf17c20a791ec3cbbc1f67
8808666f2f900537329245f6f70dc79838bfe6fc
4357f8077d6554683fe58524dea03adceeb50d66
-- INSERT -- 9,41 All
```

1.9 Press Esc to leave the edit mode, and `:wq!` to save the file. Press Enter.

1.10 Type `cat filehash`. This will display the contents of the file on the screen.

```
b2tf88mph@b2tf88mph-Virtual-Machine: ~/Documents/malware/analysis
File Edit View Search Terminal Help
b2tf88mph@b2tf88mph-Virtual-Machine:~$ cd Documents/malware/analysis
b2tf88mph@b2tf88mph-Virtual-Machine:~/Documents/malware/analysis$ ls
filehash
b2tf88mph@b2tf88mph-Virtual-Machine:~/Documents/malware/analysis$ cat filehash
f fee7fa14d1381253b12639afe68e1e312dddc51
f29a60d457ca50ccac4b601dc93f378d5d2e9b07
ca88ba2ec9e24e4f57bf17c20a791ec3cbbc1f67
8808666f2f900537329245f6f70dc79838bfe6fc
```



NOTE: Cat is useful if the file is small but often is not the best for large files.

Navigate back to to `Desktop/Files`.

1.11 Type `less Desktop/Files/bigfile.txt` and press Enter. The `less` command allows you to move up and down within a file using the arrow keys.

```
b2tf88mph@b2tf88mph-Virtual-Machine: ~  
File Edit View Search Terminal Help  
b2tf88mph@b2tf88mph-Virtual-Machine:~$ less Desktop/Files/bigfile.txt  
b2tf88mph@b2tf88mph-Virtual-Machine:~$ █
```

a. Look through this log file using the arrow keys.

b. When you are done, press q for quit.

1.12 Type `vi Desktop/Files/bigfile.txt`. We can use `vi` to navigate files as well. Type `:q!` then Enter to exit the file without saving.

```
b2tf88mph@b2tf88mph-Virtual-Machine: ~  
File Edit View Search Terminal Help  
b2tf88mph@b2tf88mph-Virtual-Machine:~$ vi Desktop/Files/bigfile.txt  
b2tf88mph@b2tf88mph-Virtual-Machine:~$ █
```

2.0 Wildcards

Wildcards are a set of building blocks that allow you to create a pattern.

2.1 Type `cd Documents/Science_Fiction` and press Enter. This is a list of science fiction movies.

Note: Each file contains interesting facts about the movie, use your skills with `cat` to move around inside the files and read some of them!

2.2 Type `ls F*` and press Enter. This will list all of the files beginning with the letter F.



```
File Edit View Search Terminal Help
b2tf88mph@b2tf88mph-Virtual-Machine:~$ cd Documents/Science_Fiction
b2tf88mph@b2tf88mph-Virtual-Machine:~/Documents/Science_Fiction$ ls
Alien 3.txt          Flatliners.txt
Aliens.txt           Gremelins.txt
Alien.txt            Planet of the Apes.txt
Back to the Future.txt Predator.txt
Battle Star Galactica.txt Robo Cop.txt
Beneath the Plante of the Apes.txt Terminator.txt
Crimes of the Future.txt The Andromeda Strain.txt
Critters.txt         The Lost World.txt
Firefly.txt          Total Recall.txt
Firestarter.txt       Tracers.txt
b2tf88mph@b2tf88mph-Virtual-Machine:~/Documents/Science_Fiction$ ls F*
Firefly.txt  Firestarter.txt  Flatliners.txt
b2tf88mph@b2tf88mph-Virtual-Machine:~/Documents/Science_Fiction$
```

2.3 Type `ls ?r*` and press Enter. This will give us a listing of all files whose second letter is `r`.

```
File Edit View Search Terminal Help
b2tf88mph@b2tf88mph-Virtual-Machine:~$ cd Documents/Science_Fiction
b2tf88mph@b2tf88mph-Virtual-Machine:~/Documents/Science_Fiction$ ls
Alien 3.txt          Flatliners.txt
Aliens.txt           Gremelins.txt
Alien.txt            Planet of the Apes.txt
Back to the Future.txt Predator.txt
Battle Star Galactica.txt Robo Cop.txt
Beneath the Plante of the Apes.txt Terminator.txt
Crimes of the Future.txt The Andromeda Strain.txt
Critters.txt         The Lost World.txt
Firefly.txt          Total Recall.txt
Firestarter.txt       Tracers.txt
b2tf88mph@b2tf88mph-Virtual-Machine:~/Documents/Science_Fiction$ ls ?r*
Crimes of the Future.txt  Gremelins.txt  Tracers.txt
Critters.txt             Predator.txt
b2tf88mph@b2tf88mph-Virtual-Machine:~/Documents/Science_Fiction$
```

2.4 Type `ls *.???` and press Enter. This will give us a listing of every file with a three letter extension.

```
File Edit View Search Terminal Help
b2tf88mph@b2tf88mph-Virtual-Machine:~$ cd Documents/Science_Fiction
b2tf88mph@b2tf88mph-Virtual-Machine:~/Documents/Science_Fiction$ ls
Alien 3.txt          Flatliners.txt
Aliens.txt           Gremelins.txt
Alien.txt            Planet of the Apes.txt
Back to the Future.txt Predator.txt
Battle Star Galactica.txt Robo Cop.txt
Beneath the Plante of the Apes.txt Terminator.txt
Crimes of the Future.txt The Andromeda Strain.txt
Critters.txt         The Lost World.txt
Firefly.txt          Total Recall.txt
Firestarter.txt       Tracers.txt
b2tf88mph@b2tf88mph-Virtual-Machine:~/Documents/Science_Fiction$ ls *???
Alien 3.txt          Flatliners.txt
Aliens.txt           Gremelins.txt
Alien.txt            Planet of the Apes.txt
Back to the Future.txt Predator.txt
Battle Star Galactica.txt Robo Cop.txt
Beneath the Plante of the Apes.txt Terminator.txt
Crimes of the Future.txt The Andromeda Strain.txt
Critters.txt         The Lost World.txt
Firefly.txt          Total Recall.txt
Firestarter.txt       Tracers.txt
```



2.5 Type `ls [AT]*` and press Enter. This will allow us to search a range of characters, in this case any files that begin with either A or T.

```
b2tf88mph@b2tf88mph-Virtual-Machine: ~/Documents/Science_Fiction
File Edit View Search Terminal Help
b2tf88mph@b2tf88mph-Virtual-Machine:~$ cd Documents/Science_Fiction
b2tf88mph@b2tf88mph-Virtual-Machine:~/Documents/Science_Fiction$ ls
Alien 3.txt      Flatliners.txt
Aliens.txt      Gremelins.txt
Alien.txt       Planet of the Apes.txt
Back to the Future.txt  Predator.txt
Battle Star Galactica.txt  Robo Cop.txt
Beneath the Plante of the Apes.txt  Terminator.txt
Crimes of the Future.txt  The Andromeda Strain.txt
Critters.txt            The Lost World.txt
Firefly.txt             Total Recall.txt
Firestarter.txt        Tracers.txt
b2tf88mph@b2tf88mph-Virtual-Machine:~/Documents/Science_Fiction$ ls [AT]*
Alien 3.txt  Alien.txt      The Andromeda Strain.txt  Total Recall.txt
Aliens.txt   Terminator.txt  The Lost World.txt       Tracers.txt
b2tf88mph@b2tf88mph-Virtual-Machine:~/Documents/Science_Fiction$
```

3.0 File Permissions

Let's take a little deep look into the file permissions and meanings.

3.1 Navigate back to the `Documents` folder and type `ls -l` and press Enter.

The first character identifies the file type. If it is a dash (-) then it is a normal file. If it is a d, then it is a directory.

The next three sets of characters identify permissions for the owner, group and others. If a dash exists, the permissions are absent. Otherwise either an `r`, `w`, or `x` will exist for read, write or execute.



```
b2tf88mph@b2tf88mph-Virtual-Machine: ~/Documents
File Edit View Search Terminal Help
b2tf88mph@b2tf88mph-Virtual-Machine:~$ cd Documents
b2tf88mph@b2tf88mph-Virtual-Machine:~/Documents$ ls -l
total 20
drwxrwxr-x 3 b2tf88mph b2tf88mph 4096 Feb  7 17:56 malware
drwxrwxr-x 2 b2tf88mph b2tf88mph 4096 Feb 18 22:10 Science_Fiction
-rw-rw-r-- 1 b2tf88mph b2tf88mph  366 Feb  4 20:39 three_laws.txt
-rw-rw-r-- 1 b2tf88mph b2tf88mph  366 Feb  4 20:40 three_Laws.txt
-rw-rw-r-- 1 b2tf88mph b2tf88mph  366 Feb  4 20:40 Three_Laws.txt
b2tf88mph@b2tf88mph-Virtual-Machine:~/Documents$
```

3.2 Type `chmod g+x three_laws.txt` and press Enter.

3.3 Now let's look at the file permissions for this file, Type `ls -l` and press Enter. As you can see, the file now has executable privileges for the group.

```
b2tf88mph@b2tf88mph-Virtual-Machine: ~/Documents
File Edit View Search Terminal Help
b2tf88mph@b2tf88mph-Virtual-Machine:~$ cd Documents
b2tf88mph@b2tf88mph-Virtual-Machine:~/Documents$ ls -l
total 20
-rw-rwxr-- 1 b2tf88mph b2tf88mph  366 Feb  4 20:39 three_laws.txt
-rw-rw-r-- 1 b2tf88mph b2tf88mph  366 Feb  4 20:40 three_Laws.txt
-rw-rw-r-- 1 b2tf88mph b2tf88mph  366 Feb  4 20:39 three_laws.txt
-rw-rw-r-- 1 b2tf88mph b2tf88mph  366 Feb  4 20:40 three_Laws.txt
-rw-rw-r-- 1 b2tf88mph b2tf88mph  366 Feb  4 20:40 Three_Laws.txt
b2tf88mph@b2tf88mph-Virtual-Machine:~/Documents$
```




4.0 Filters

Navigate to `Downloads/Monty`.

4.1 Type `head -10 MP_Quotes.txt` and press Enter. This will print the first 10 lines of data in the file.

```
b2tf88mph@b2tf88mph-Virtual-Machine: ~/Downloads/Monty
File Edit View Search Terminal Help
b2tf88mph@b2tf88mph-Virtual-Machine:~$ cd Downloads/Monty
b2tf88mph@b2tf88mph-Virtual-Machine:~/Downloads/Monty$ head -10 MP_Quotes.txt
Strange women lying in ponds distributing swords is no basis for a system of gov
ernment.

Bedevere: What makes you think she is a witch?
Peasant: She turned me into a newt.
Bedevere: A newt?
Peasant: Well I got better.

I am an enchanter. There are some who call meTim.

Black Knight: Tis but a scratch.
b2tf88mph@b2tf88mph-Virtual-Machine:~/Downloads/Monty$
```

4.2 Type `tail -10 MP_Quotes.txt` and press Enter. This will print the last 10 lines of data in the file.

```
b2tf88mph@b2tf88mph-Virtual-Machine: ~/Downloads/Monty
File Edit View Search Terminal Help
b2tf88mph@b2tf88mph-Virtual-Machine:~$ cd Downloads/Monty
b2tf88mph@b2tf88mph-Virtual-Machine:~/Downloads/Monty$ tail -10 MP_Quotes.txt
Bridgekeeper: What is your name?
King Arthur: It is Arthur King of the Britons.
Bridgekeeper: What is your quest?
King Arthur: To seek the Holy Grail.
Bridgekeeper: What is the air-speed velocity of an unladen swallow?
King Arthur: What do you mean? An African or a European swallow?
Bridgekeeper: I dont know that. Aaaaaaaaagh!

On second thoughts, let us not go to Camelot. It is a silly place.
b2tf88mph@b2tf88mph-Virtual-Machine:~/Downloads/Monty$ █
```



4.3 Type `sort MP_Quotes.txt` and press Enter. This will sort the data alphabetically but there are more options available. Use the `man` pages to view some other options and explore the file.

```
b2tf88mph@b2tf88mph-Virtual-Machine: ~/Downloads/Monty
File Edit View Search Terminal Help
On second thoughts, let us not go to Camelot. It is a silly place.
b2tf88mph@b2tf88mph-Virtual-Machine:~/Downloads/Monty$ sort MP_Quotes.txt

Bedevere: A newt?
Bedevere: What makes you think she is a witch?
Black Knight: Come here!
Black Knight: Its just a flesh wound
Black Knight: Right, Ill do you for that!
Black Knight: Tis but a scratch.
Black Knight: Yes I have.
[Brave Sir Robin] Ive soiled my armour!
Bridgekeeper: I dont know that. Aaaaaaaaagh!
Bridgekeeper: Right. Off you go.
Bridgekeeper: Stop. Who would cross the Bridge of Death must answer me these que
stions three, ere the other side he see.
Bridgekeeper: What is the air-speed velocity of an unladen swallow?
Bridgekeeper: What is your favourite colour?
```

Note: Blank spaces are alphabetized before the data.

Navigate to `Downloads/NBC`

4.4 Type `nl Nightmare_Facts.txt` and press Enter. This will number the line of the data.



```
b2tf88mph@b2tf88mph-Virtual-Machine: ~/Downloads/NBC
File Edit View Search Terminal Help
b2tf88mph@b2tf88mph-Virtual-Machine:~$ cd Downloads/NBC
b2tf88mph@b2tf88mph-Virtual-Machine:~/Downloads/NBC$ nl Nightmare_Facts.txt
 1 1. The stop-motion musical had 24 frames to a second, meaning they had to pose characters 24 times for each
the completed film.
 2 2. They had to move a character, take a picture, move the character, take a picture, and so on.
 3
 4 2. That consisted of roughly 110,000 frames.
 5
 6 3. One minute of the movie required an entire week of filming.
 7
 8 4. And the movie therefore took more than three years to complete.
 9
10 5. There are as many as 60 individual characters, with three or four duplicates each.
11
12 6. Each puppet had an armature inside it, enabling flexible movement.
13
14 7. The sculpture department consisted of only four people.
15 And they did all those characters.
16
17 8. More than 400 distinctly different Jack Skellington heads were used.
18
19 9. And Sally had a mask for every expression change.
20 They couldn't give her different heads because of her long red hair, which is why they created the masks.
21
22 They couldn't give her different heads because of her long red hair, which is why they created the masks.
23
24 10. To make Jack blink, replacement series were wedged into his eyes, which took up three frames per blink.
25
26 11. Set designer Gregg Glesser built a quarter-scale mock-up of Halloween Town as a model for the real set.
```

4.5 Type `wc Nightmare_Facts.txt` and press Enter. This gives the word count as well as characters and lines.

```
b2tf88mph@b2tf88mph-Virtual-Machine: ~/Downloads/NBC
File Edit View Search Terminal Help
b2tf88mph@b2tf88mph-Virtual-Machine:~$ cd Downloads/NBC
b2tf88mph@b2tf88mph-Virtual-Machine:~/Downloads/NBC$ wc Nightmare_Facts.txt
 47 381 2235 Nightmare_Facts.txt
b2tf88mph@b2tf88mph-Virtual-Machine:~/Downloads/NBC$
```

47 Lines
381 Words
2235 Characters

Navigate to `Downloads/Heroes`

4.6 Type `cut -f 1 -d ',' Secret_Identity.csv` and press Enter. Cut is useful if the data is separated into fields. Use the man pages to fully explore cut.



```
b2tf88mph@b2tf88mph-Virtual-Machine: ~/Downloads/Heroes
File Edit View Search Terminal Help
b2tf88mph@b2tf88mph-Virtual-Machine:~/Downloads/Heroes$ cut -f 1 -d ',' Secret_Identity.csv
Name
Superman
Batman
Martian Man Hunter
The Flash
Aquaman
Ironman
b2tf88mph@b2tf88mph-Virtual-Machine:~/Downloads/Heroes$
```

As you can see, this shows us the first column of the .csv file. Change the 1 to a 2, what happens then?

```
b2tf88mph@b2tf88mph-Virtual-Machine: ~/Downloads/Heroes
File Edit View Search Terminal Help
b2tf88mph@b2tf88mph-Virtual-Machine:~/Downloads/Heroes$ cut -f 1 -d ',' Secret_Identity.csv
Name
Superman
Batman
Martian Man Hunter
The Flash
Aquaman
Ironman
b2tf88mph@b2tf88mph-Virtual-Machine:~/Downloads/Heroes$ cut -f 2 -d ',' Secret_Identity.csv
First
Clark
Bruce
Jon
Barry
Arthur
Tony
b2tf88mph@b2tf88mph-Virtual-Machine:~/Downloads/Heroes$ cut -f 3 -d ',' Secret_Identity.csv
Last
Kent
Wayne
Jonzz
Allen
Curry
Stark
b2tf88mph@b2tf88mph-Virtual-Machine:~/Downloads/Heroes$
```

4.7 Type `sed s/Bruce/*****/g Secret_Identity.csv` and press Enter. SED stands for stream editor and will allow us to do a find and replace on the data.



```
b2tf88mph@b2tf88mph-Virtual-Machine: ~/Downloads/Heroes
File Edit View Search Terminal Help
b2tf88mph@b2tf88mph-Virtual-Machine:~$ cd Downloads/Heroes
b2tf88mph@b2tf88mph-Virtual-Machine:~/Downloads/Heroes$ sed s/Bruce/*****/g Se
cret_Identity.csv
Name,First,Last,Location,Planet of Origin,Metahuman,Alien,Species
Superman,Clark,Kent,Metropolis,Krypton,No,Yes,Kryptonian
Batman,*****,Wayne,Gotham City,Earth,No,No,Human
Martian Man Hunter,Jon,Jonzz,National City,Mars,No,Yes,Green Martian
The Flash,Barry,Allen,Central City,Earth,Yes,No,Human
Aquaman,Arthur,Curry,Pacific Ocean,Earth,No,No,Atlantian
Ironman,Tony,Stark,New York City,Earth,No,No,Human
Superman,Clark,Kent,Metropolis,Krypton,No,Yes,Kryptonian
Batman,*****,Wayne,Gotham City,Earth,No,No,Human
Martian Man Hunter,Jon,Jonzz,National City,Mars,No,Yes,Green Martian
The Flash,Barry,Allen,Central City,Earth,Yes,No,Human
Aquaman,Arthur,Curry,Pacific Ocean,Earth,No,No,Atlantian
Ironman,Tony,Stark,New York City,Earth,No,No,Human Superman,Clark,Kent,Metropoli
s,Krypton,No,Yes,Kryptonian
Batman,*****,Wayne,Gotham City,Earth,No,No,Human
Martian Man Hunter,Jon,Jonzz,National City,Mars,No,Yes,Green Martian
The Flash,Barry,Allen,Central City,Earth,Yes,No,Human
Aquaman,Arthur,Curry,Pacific Ocean,Earth,No,No,Atlantian
Ironman,Tony,Stark,New York City,Earth,No,No,Human
b2tf88mph@b2tf88mph-Virtual-Machine:~/Downloads/Heroes$
```

You can see that all the instances of Bruce have been redacted.

4.8 Type `cat Secret_Identity.csv` and press Enter. The file contains duplicate items.

```
b2tf88mph@b2tf88mph-Virtual-Machine: ~/Downloads/Heroes
File Edit View Search Terminal Help
b2tf88mph@b2tf88mph-Virtual-Machine:~$ cd Downloads/Heroes
b2tf88mph@b2tf88mph-Virtual-Machine:~/Downloads/Heroes$ cat Secret_Identity.csv
Name,First,Last,Location,Planet of Origin,Metahuman,Alien,Species
Superman,Clark,Kent,Metropolis,Krypton,No,Yes,Kryptonian
Batman,Bruce,Wayne,Gotham City,Earth,No,No,Human
Martian Man Hunter,Jon,Jonzz,National City,Mars,No,Yes,Green Martian
The Flash,Barry,Allen,Central City,Earth,Yes,No,Human
Aquaman,Arthur,Curry,Pacific Ocean,Earth,No,No,Atlantian
Ironman,Tony,Stark,New York City,Earth,No,No,Human
b2tf88mph@b2tf88mph-Virtual-Machine:~/Downloads/Heroes$
```

4.9 Type `uniq Secret_Identity.csv` and press Enter. Now see that the duplicate items are not printed.



```
b2tf88mph@b2tf88mph-Virtual-Machine: ~/Downloads/Heroes
File Edit View Search Terminal Help
Aquaman,Arthur,Curry,Pacific Ocean,Earth,No,No,Atlantian
Ironman,Tony,Stark,New York City,Earth,No,No,Human
b2tf88mph@b2tf88mph-Virtual-Machine:~/Downloads/Heroes$ uniq Secret_Identity.csv
Name,First,Last,Location,Planet of Origin,Metahuman,Alien,Species
Superman,Clark,Kent,Metropolis,Krypton,No,Yes,Kryptonian
Batman,Bruce,Wayne,Gotham City,Earth,No,No,Human
Martian Man Hunter,Jon,Jonzz,National City,Mars,No,Yes,Green Martian
The Flash,Barry,Allen,Central City,Earth,Yes,No,Human
Aquaman,Arthur,Curry,Pacific Ocean,Earth,No,No,Atlantian
Ironman,Tony,Stark,New York City,Earth,No,No,Human
Superman,Clark,Kent,Metropolis,Krypton,No,Yes,Kryptonian
Batman,Bruce,Wayne,Gotham City,Earth,No,No,Human
Martian Man Hunter,Jon,Jonzz,National City,Mars,No,Yes,Green Martian
The Flash,Barry,Allen,Central City,Earth,Yes,No,Human
Aquaman,Arthur,Curry,Pacific Ocean,Earth,No,No,Atlantian
Ironman,Tony,Stark,New York City,Earth,No,No,Human Superman,Clark,Kent,Metropoli
s,Krypton,No,Yes,Kryptonian
Batman,Bruce,Wayne,Gotham City,Earth,No,No,Human
Martian Man Hunter,Jon,Jonzz,National City,Mars,No,Yes,Green Martian
The Flash,Barry,Allen,Central City,Earth,Yes,No,Human
Aquaman,Arthur,Curry,Pacific Ocean,Earth,No,No,Atlantian
Ironman,Tony,Stark,New York City,Earth,No,No,Human
b2tf88mph@b2tf88mph-Virtual-Machine:~/Downloads/Heroes$
b2tf88mph@b2tf88mph-Virtual-Machine:~/Downloads/Heroes$
```

4.10 Type `grep Name Secret_Identity.csv` and press Enter. Grep will output all the data that matches your search, try searching for some other things, try it on the other files we worked with.

```
b2tf88mph@b2tf88mph-Virtual-Machine: ~/Downloads/Heroes
File Edit View Search Terminal Help
b2tf88mph@b2tf88mph-Virtual-Machine:~$ cd Downloads/Heroes
b2tf88mph@b2tf88mph-Virtual-Machine:~/Downloads/Heroes$ grep Name Secret_Identity.csv
Name,First,Last,Location,Planet of Origin,Metahuman,Alien,Species
b2tf88mph@b2tf88mph-Virtual-Machine:~/Downloads/Heroes$
```

Great job, you have completed LAB002!

Thank You, you may now close this module.