

1. (30 points) There is a feature in Microsoft Excel that allows the user to export a spreadsheet into special type of text file known as a CSV file. Each row in the spreadsheet is exported to a single line in the file with each column separated by commas. Suppose that you have a file phone.csv that contains a list of names, addresses, and phone numbers in CSV format.

1. How could you find the phone number of “Athens State University” in this file?  
`grep 'Athens State University' phone.csv | grep -o '[0-9]\{3\}\-[0-9]\{3\}\-[0-9]\{4\}'`

```
parallels@ubuntu:~/school/ITE315-Scripting/Assn01$ grep 'Athens State University' phone.csv | grep -o '[0-9]\{3\}\-[0-9]\{3\}\-[0-9]\{4\}'
256-555-4444
parallels@ubuntu:~/school/ITE315-Scripting/Assn01$ cat phone.csv
William,B Street,256-555-1111
Jessica,A Street,256-555-2222
Randy,C Street,256-555-5555
Athens State University,E Street,256-555-4444
Calhoun Community College,D Street,256-555-3333
```

2. What set of commands can you use to display the contents of this file sorted by name? sorted by address? sorted by name and then address (hint: use the man pages to get information on the sort utility)?

Sorted by name: `sort -t\, -k 1 phone.csv`  
Sorted by address: `sort -t\, -k 2 phone.csv`  
Sorted by name then address: `sort -t\, -k1,1 -k2,2 phone.csv`

2. (10 points) The Linux operating system writes error log information into the /var/log directory. You are having problems getting a USB device to operate correctly when your computer reboots. Explain what commands you would use to determine what error messages, if any, are being written to the syslog system log file.

`grep '[Uu][Ss][Bb]' /var/log/syslog | tail`  
This will find all occurrences of USB/usb and only print the last 10 results of occurrence.

3. (10 points) The Linux tail utility has the ability to display additions to a file in real-time. Use the man utility to determine what commands 1 you would use to observe the connection and disconnection of a USB thumb drive to your machine (via the syslog). Do this and attach the output from your experiment to your homework.

`tail -f /var/log/syslog | grep '[Uu][Ss][Bb]'`

I had no way of triggering the USB functionality but per everything I've read on StackOverflow, this would work. It tails the syslog file and only prints out USB events.