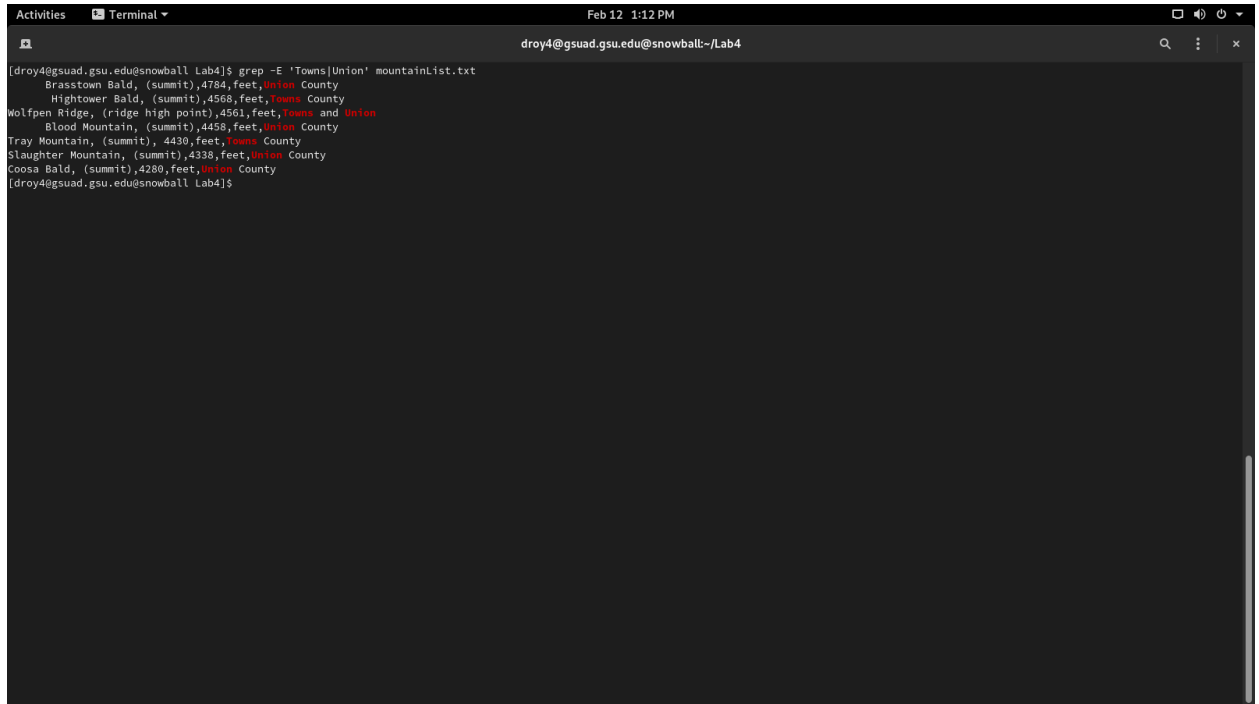


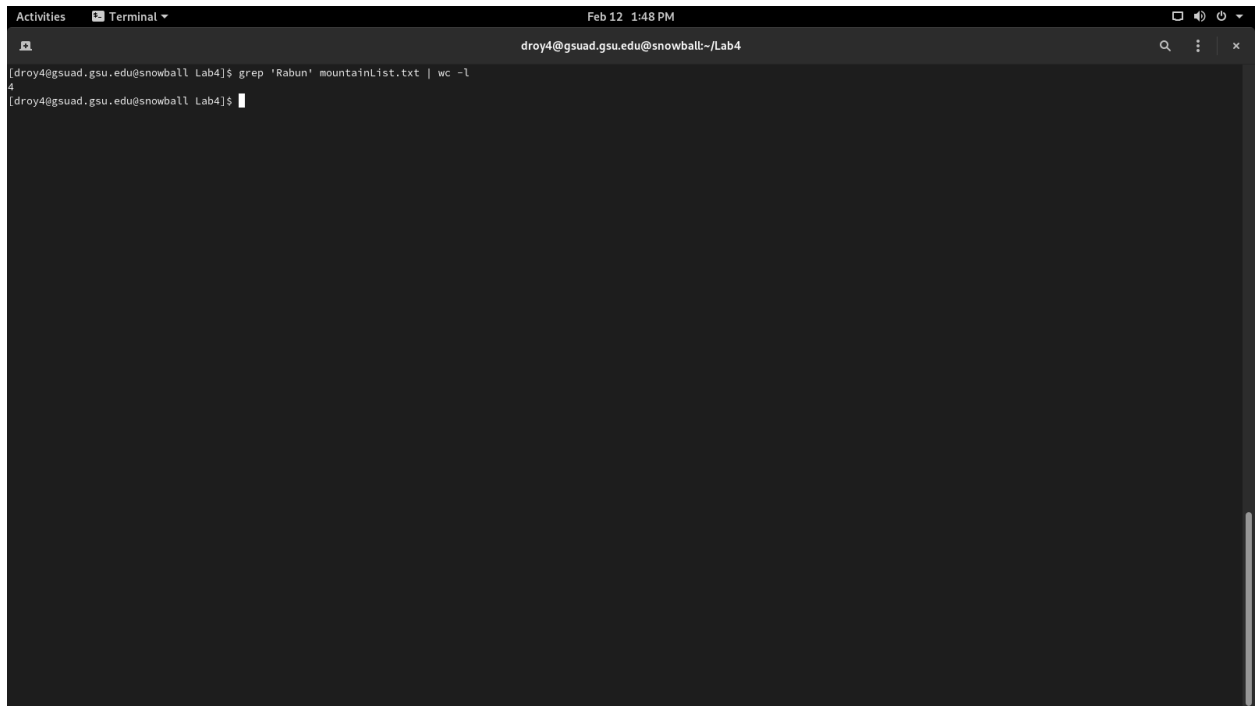
1.



A terminal window titled "Terminal" with a timestamp of "Feb 12 1:12 PM". The user is logged in as "droy4@gsuad.gsu.edu@snowball:~/Lab4". The command executed is `grep -E 'Towns|Union' mountainList.txt`. The output lists several mountains with their summits, elevations, and counties, with "Towns" and "Union" highlighted in red. The output is as follows:

```
[droy4@gsuad.gsu.edu@snowball Lab4]$ grep -E 'Towns|Union' mountainList.txt
  Brasstown Bald, (summit),4784,feet,Union County
  Hightower Bald, (summit),4568,feet,Towns County
  Wolfpen Ridge, (ridge high point),4561,feet,Towns and Union
  Blood Mountain, (summit),4458,feet,Union County
  Tray Mountain, (summit), 4430,feet,Towns County
  Slaughter Mountain, (summit),4338,feet,Union County
  Coosa Bald, (summit),4280,feet,Union County
[droy4@gsuad.gsu.edu@snowball Lab4]$
```

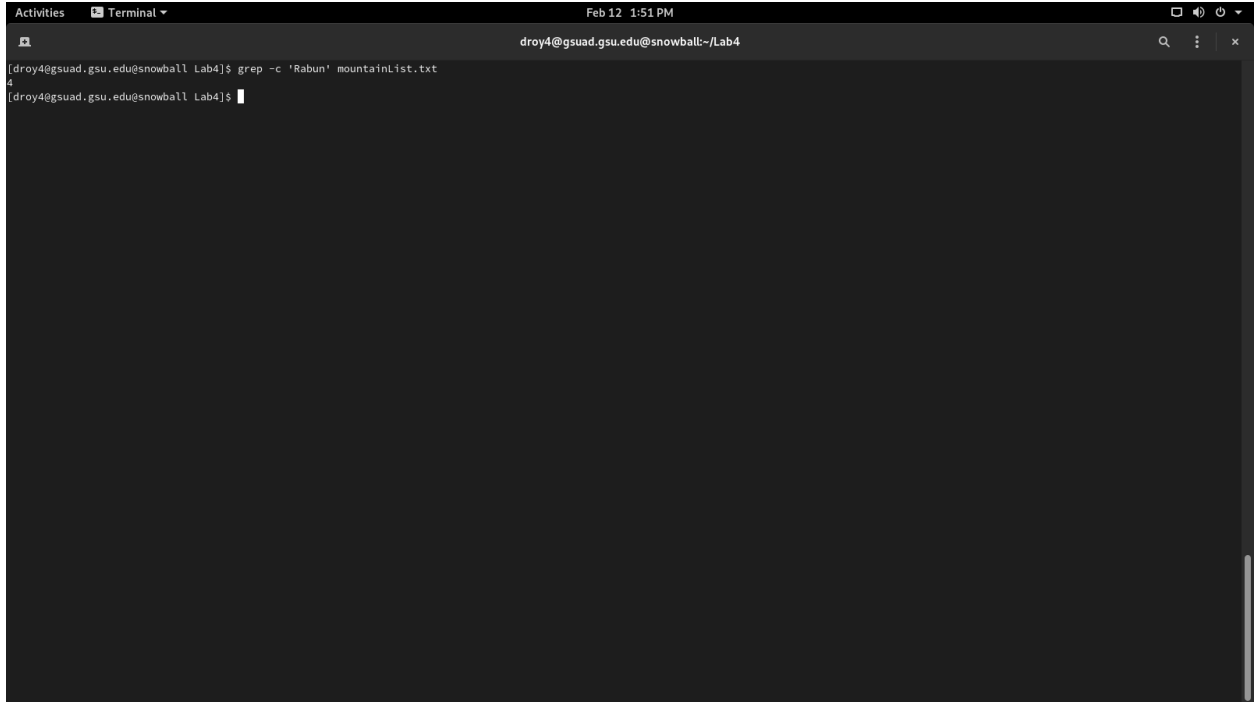
2.



A terminal window titled "Terminal" with a timestamp of "Feb 12 1:48 PM". The user is logged in as "droy4@gsuad.gsu.edu@snowball:~/Lab4". The command executed is `grep 'Rabun' mountainList.txt | wc -l`. The output is the number "4", indicating there are 4 lines containing the word "Rabun".

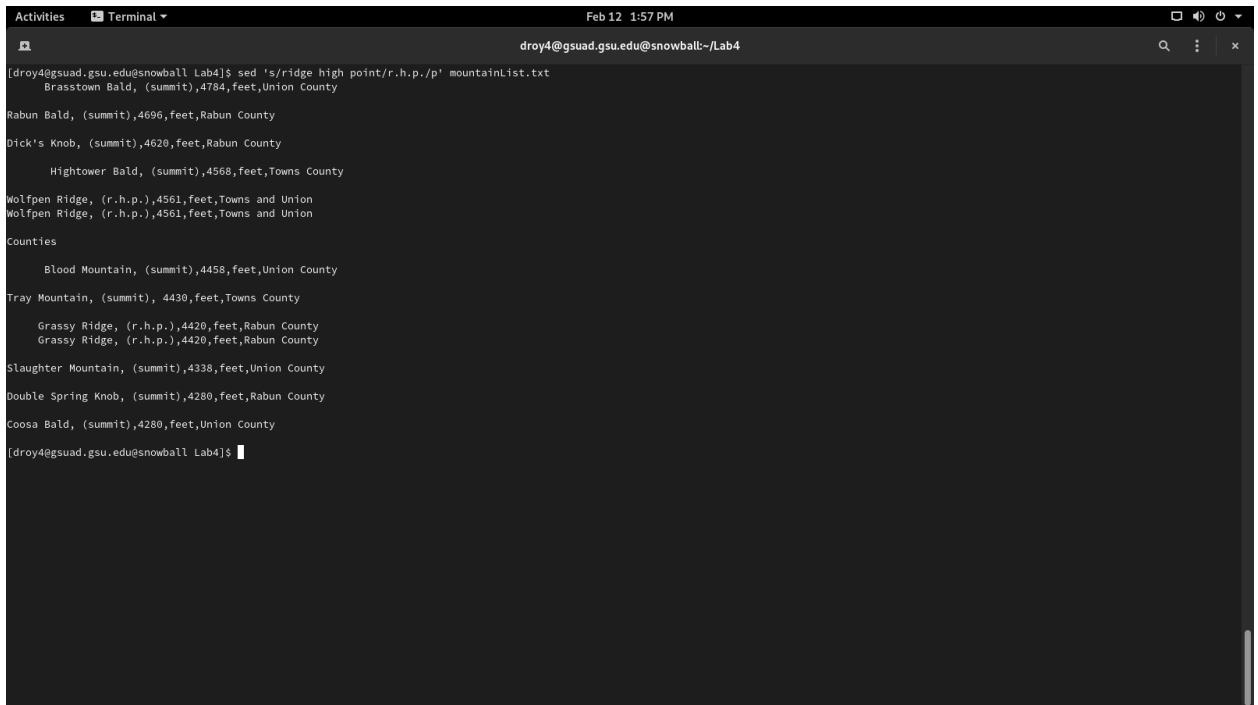
```
[droy4@gsuad.gsu.edu@snowball Lab4]$ grep 'Rabun' mountainList.txt | wc -l
4
[droy4@gsuad.gsu.edu@snowball Lab4]$
```

3.



A terminal window titled "Terminal" with a timestamp of "Feb 12 1:51 PM". The user is logged in as "droy4@gsuad.gsu.edu@snowball:~/Lab4". The command executed is `grep -c 'Rabun' mountainList.txt`, which returns the output `4`. The prompt is `[droy4@gsuad.gsu.edu@snowball Lab4]$`.

4. A -



A terminal window titled "Terminal" with a timestamp of "Feb 12 1:57 PM". The user is logged in as "droy4@gsuad.gsu.edu@snowball:~/Lab4". The command executed is `sed 's/ridge high point/r.h.p./p' mountainList.txt`. The output lists several mountain peaks with their elevations and locations, where "ridge high point" has been replaced by "r.h.p.". The prompt is `[droy4@gsuad.gsu.edu@snowball Lab4]$`.

```
[droy4@gsuad.gsu.edu@snowball Lab4]$ sed 's/ridge high point/r.h.p./p' mountainList.txt
  Brasstown Bald, (summit),4784,feet,Union County

Rabun Bald, (summit),4696,feet,Rabun County
Dick's Knob, (summit),4620,feet,Rabun County

  Hightower Bald, (summit),4568,feet,Towns County
Wolfpen Ridge, (r.h.p.),4561,feet,Towns and Union
Wolfpen Ridge, (r.h.p.),4561,feet,Towns and Union
Counties
  Blood Mountain, (summit),4458,feet,Union County
Tray Mountain, (summit), 4430,feet,Towns County
  Grassy Ridge, (r.h.p.),4420,feet,Rabun County
  Grassy Ridge, (r.h.p.),4420,feet,Rabun County
Slaughter Mountain, (summit),4338,feet,Union County
Double Spring Knob, (summit),4280,feet,Rabun County
Coosa Bald, (summit),4280,feet,Union County
[droy4@gsuad.gsu.edu@snowball Lab4]$
```

B -

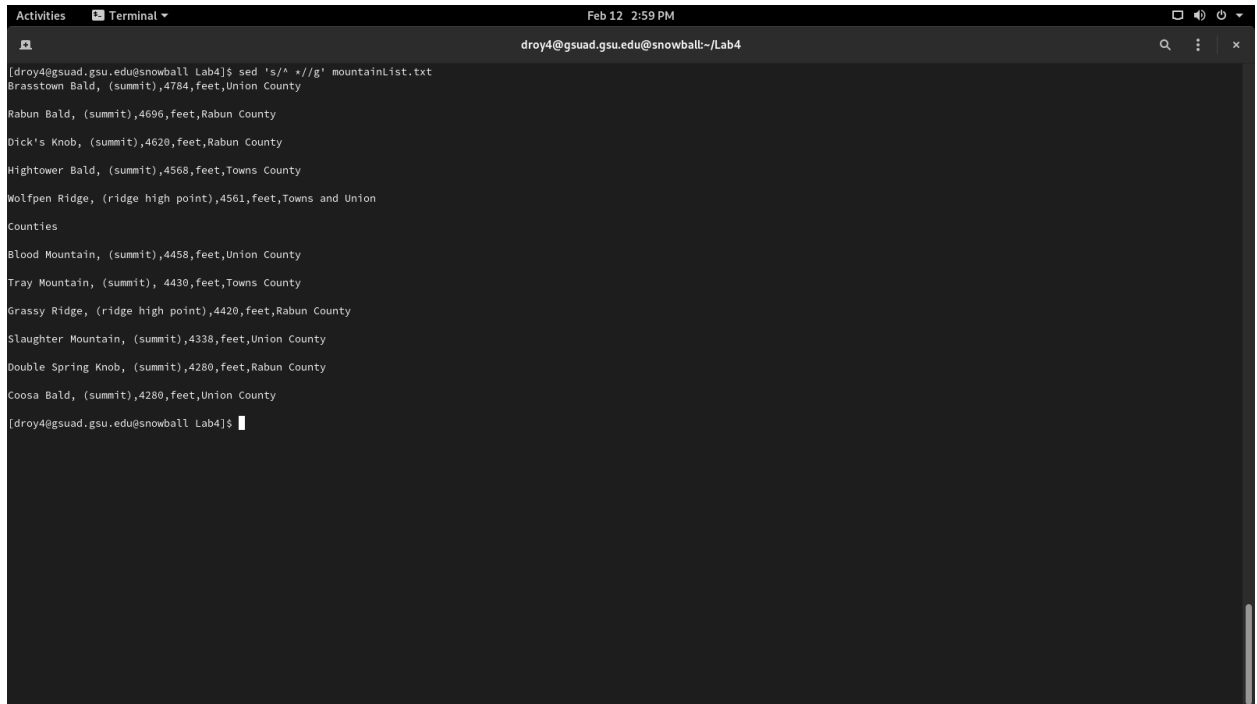
```
Activities Terminal Feb 12 1:59 PM
droy4@gsuad.gsu.edu@snowball:~/Lab4
[droy4@gsuad.gsu.edu@snowball Lab4]$ sed -n 's/ridge high point/r.h.p/p' mountainList.txt
Wolfpen Ridge, (r.h.p),4561,feet,Towns and Union
Grassy Ridge, (r.h.p),4420,feet,Rabun County
[droy4@gsuad.gsu.edu@snowball Lab4]$
```

C -

```
Activities Terminal Feb 12 2:02 PM
droy4@gsuad.gsu.edu@snowball:~/Lab4
SED(1) User Commands SED(1)
NAME
    sed - stream editor for filtering and transforming text
SYNOPSIS
    sed [OPTION]... {script-only-if-no-other-script} [input-file]...
DESCRIPTION
    Sed is a stream editor. A stream editor is used to perform basic text transformations on an input stream (a file or input from a pipeline). While in some ways similar to an editor which permits scripted edits (such as ed), sed works by making only one pass over the input(s), and is consequently more efficient. But it is sed's ability to filter text in a pipeline which particularly distinguishes it from other types of editors.
    -n, --quiet, --silent
        suppress automatic printing of pattern space
    -e script, --expression=script
        add the script to the commands to be executed
    -f script-file, --file=script-file
        add the contents of script-file to the commands to be executed
    --follow-symlinks
        follow symlinks when processing in place
    -i[SUFFIX], --in-place[=SUFFIX]
        edit files in place (makes backup if SUFFIX supplied)
    -c, --copy
        use copy instead of rename when shuffling files in -i mode
    -b, --binary
        does nothing; for compatibility with WIN32/CYGWIN/MSDOS/EMX ( open files in binary mode (CR+LFs are not treated specially))
    -l N, --line-length=N
        specify the desired line-wrap length for the 'l' command
Manual page sed(1) line 1 (press h for help or q to quit)
```

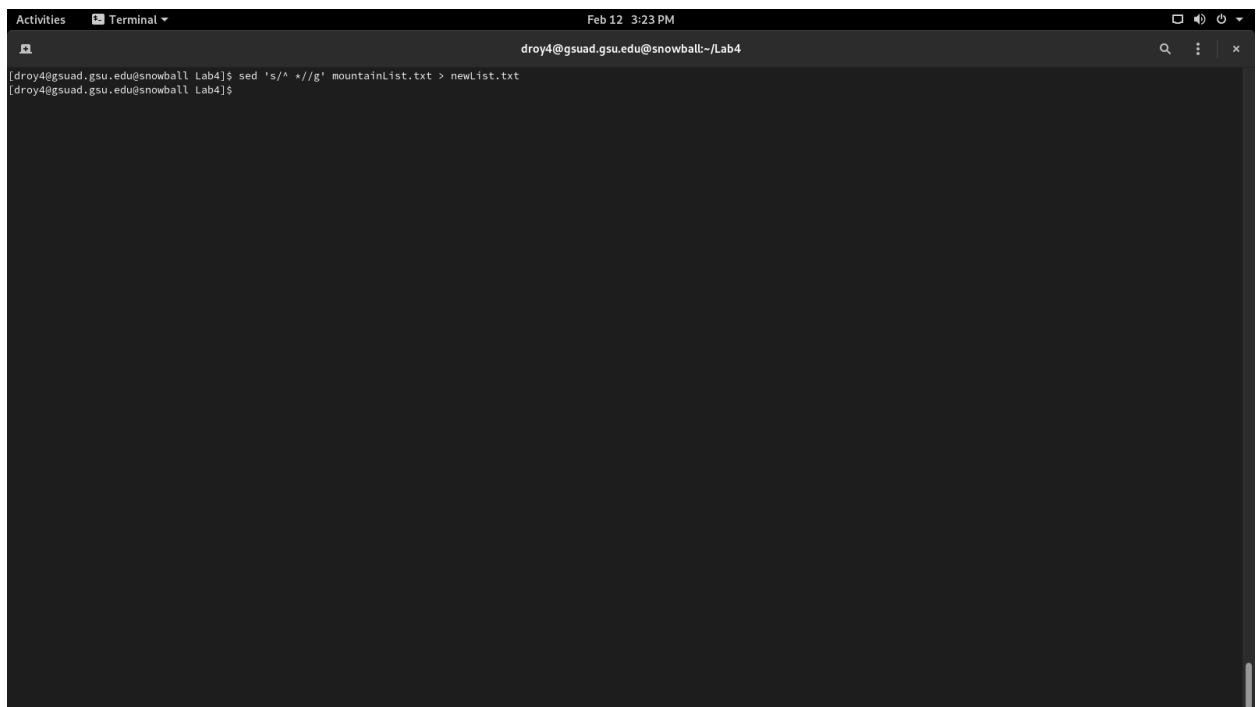
D - The command in [B] substituted every instance of the string 'ridge high point' with the abbreviation 'r.h.p', and prints that line, but suppresses automatic printing. This makes each line only print once.

5.



A terminal window titled 'Terminal' with a timestamp of 'Feb 12 2:59 PM'. The user is 'droy4@gsuad.gsu.edu@snowball:~/Lab4'. The command executed is `[droy4@gsuad.gsu.edu@snowball Lab4]$ sed 's/^ */g' mountainList.txt`. The output lists several mountain peaks with their details, including 'Brasstown Bald, (summit),4784,feet,Union County', 'Rabun Bald, (summit),4696,feet,Rabun County', 'Dick's Knob, (summit),4620,feet,Rabun County', 'Hightower Bald, (summit),4568,feet,Towns County', 'Wolfpen Ridge, (ridge high point),4561,feet,Towns and Union Counties', 'Blood Mountain, (summit),4458,feet,Union County', 'Tray Mountain, (summit), 4430,feet,Towns County', 'Grassy Ridge, (ridge high point),4420,feet,Rabun County', 'Slaughter Mountain, (summit),4338,feet,Union County', 'Double Spring Knob, (summit),4280,feet,Rabun County', and 'Coosa Bald, (summit),4280,feet,Union County'. The prompt `[droy4@gsuad.gsu.edu@snowball Lab4]$` is visible at the bottom.

6.



A terminal window titled 'Terminal' with a timestamp of 'Feb 12 3:23 PM'. The user is 'droy4@gsuad.gsu.edu@snowball:~/Lab4'. The command executed is `[droy4@gsuad.gsu.edu@snowball Lab4]$ sed 's/^ */g' mountainList.txt > newList.txt`. The prompt `[droy4@gsuad.gsu.edu@snowball Lab4]$` is visible at the bottom.

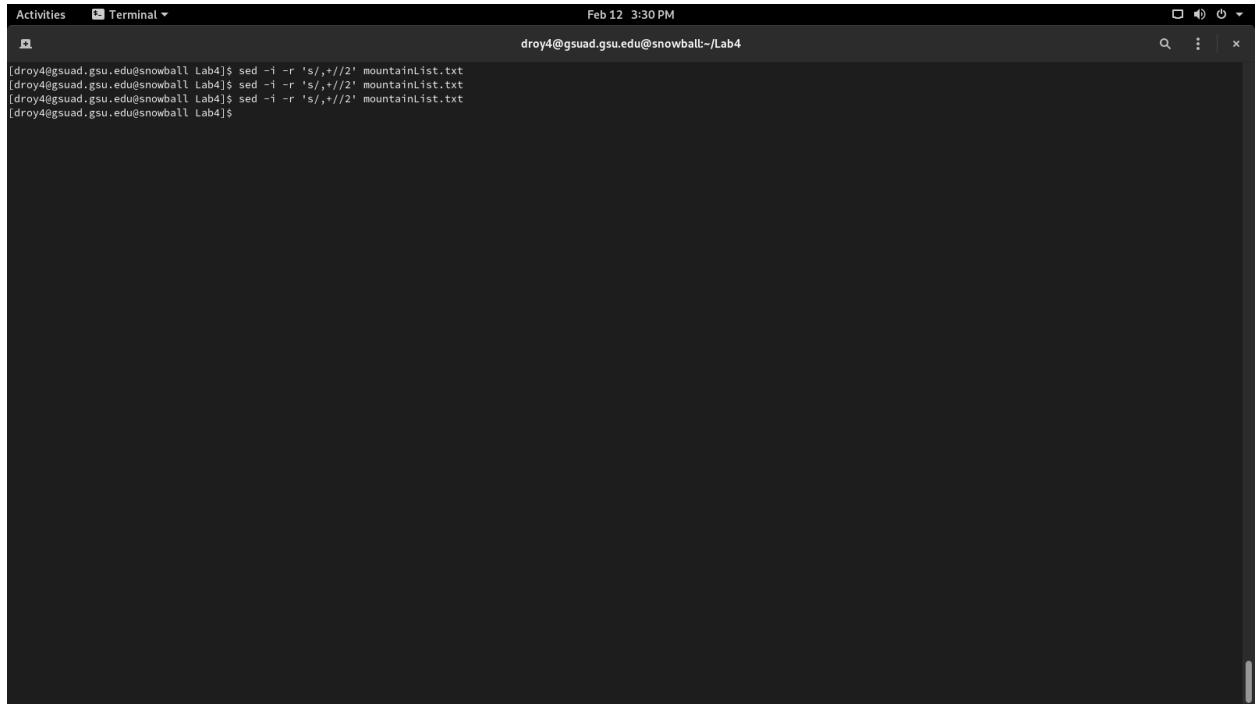
7.

```
Activities Terminal Feb 12 3:00 PM
droy4@gsuad.gsu.edu@snowball:~/Lab4
[droy4@gsuad.gsu.edu@snowball Lab4]$ sed -n '/^ /p' mountainList.txt
    Brasstown Bald, (summit),4784,feet,Union County
    Hightower Bald, (summit),4568,feet,Towns County
    Blood Mountain, (summit),4458,feet,Union County
    Grassy Ridge, (ridge high point),4420,feet,Rabun County
[droy4@gsuad.gsu.edu@snowball Lab4]$
```

8.

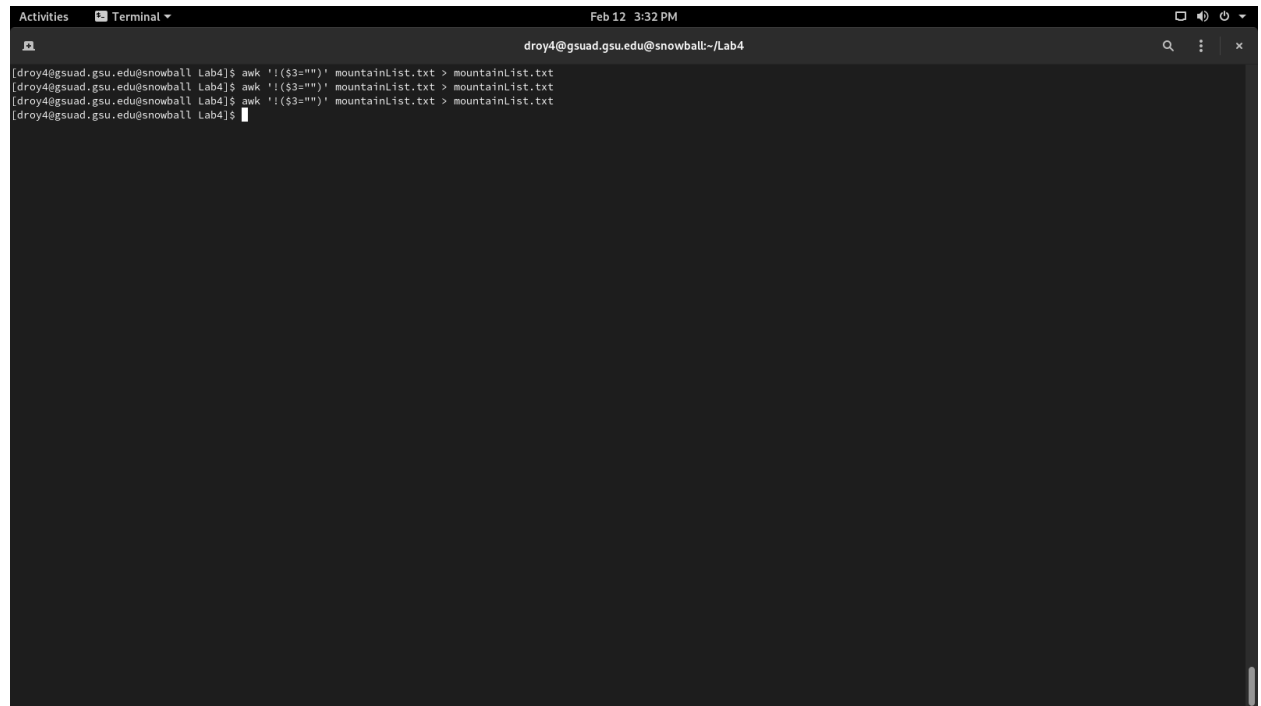
```
Activities Terminal Feb 12 3:09 PM
droy4@gsuad.gsu.edu@snowball:~/Lab4
[droy4@gsuad.gsu.edu@snowball Lab4]$ sed -i '/Union County/d' mountainList.txt
[droy4@gsuad.gsu.edu@snowball Lab4]$
```

9.



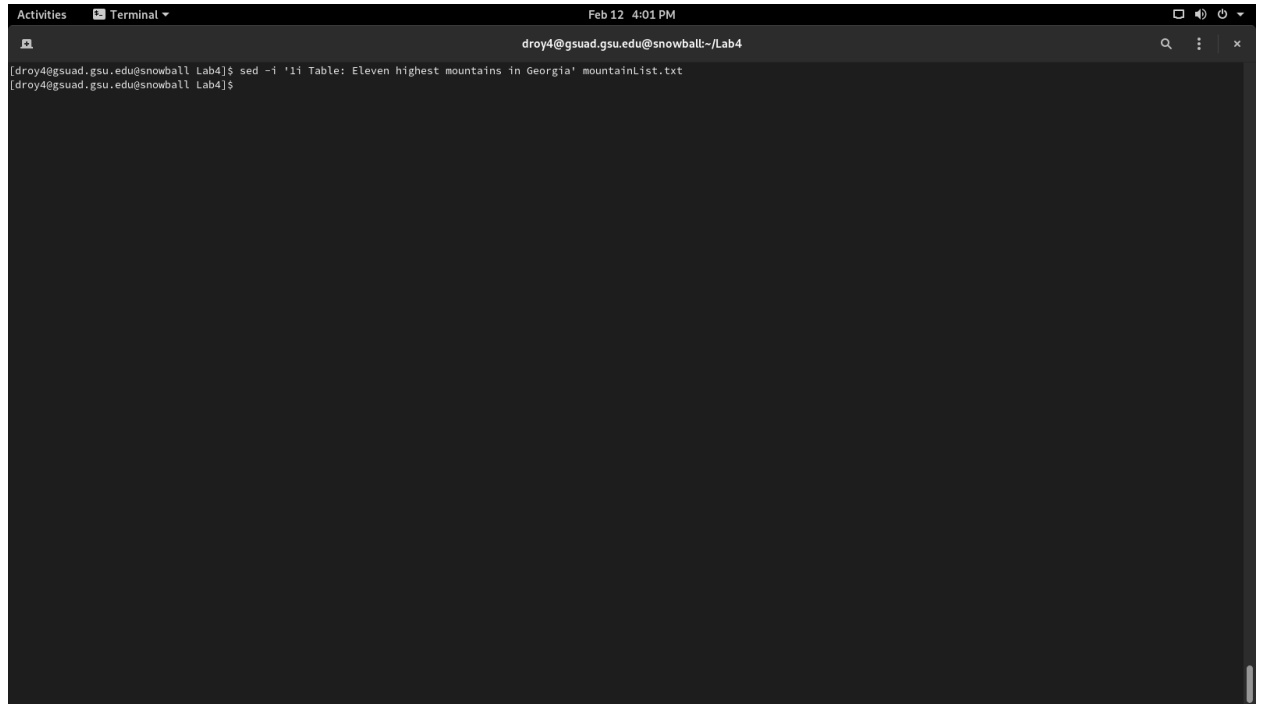
A terminal window titled "Terminal" with a timestamp of "Feb 12 3:30 PM". The window shows a user prompt "droy4@gsuad.gsu.edu@snowball:~/Lab4". The user has entered four sequential sed commands to replace slashes in "mountainList.txt":
[droy4@gsuad.gsu.edu@snowball Lab4]\$ sed -i -r 's/,+//2' mountainList.txt
[droy4@gsuad.gsu.edu@snowball Lab4]\$ sed -i -r 's/,+//2' mountainList.txt
[droy4@gsuad.gsu.edu@snowball Lab4]\$ sed -i -r 's/,+//2' mountainList.txt
[droy4@gsuad.gsu.edu@snowball Lab4]\$

10.



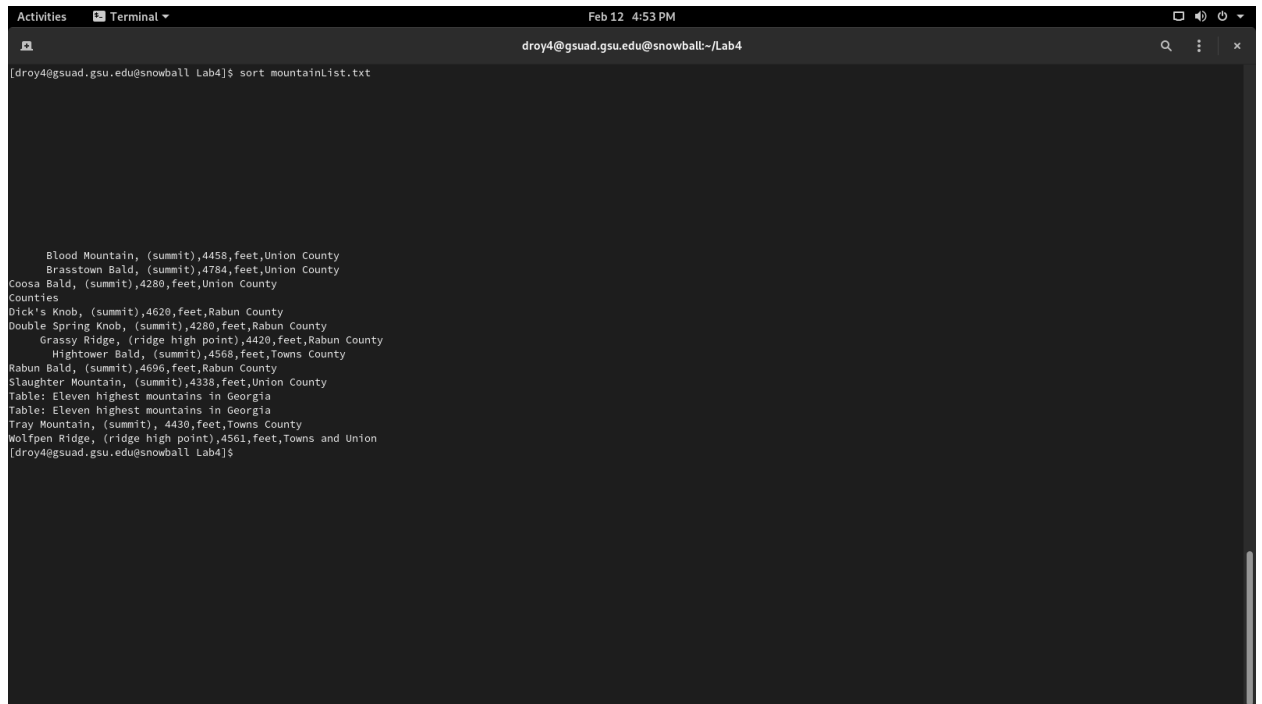
A terminal window titled "Terminal" with a timestamp of "Feb 12 3:32 PM". The window shows a user prompt "droy4@gsuad.gsu.edu@snowball:~/Lab4". The user has entered three sequential awk commands to process "mountainList.txt":
[droy4@gsuad.gsu.edu@snowball Lab4]\$ awk '!((\$3==""))' mountainList.txt > mountainList.txt
[droy4@gsuad.gsu.edu@snowball Lab4]\$ awk '!((\$3==""))' mountainList.txt > mountainList.txt
[droy4@gsuad.gsu.edu@snowball Lab4]\$ awk '!((\$3==""))' mountainList.txt > mountainList.txt
[droy4@gsuad.gsu.edu@snowball Lab4]\$

11.



```
Activities Terminal Feb 12 4:01 PM
droy4@gsuad.gsu.edu@snowball:~/Lab4
[droy4@gsuad.gsu.edu@snowball Lab4]$ sed -i '11 Table: Eleven highest mountains in Georgia' mountainList.txt
[droy4@gsuad.gsu.edu@snowball Lab4]$
```

12.



```
Activities Terminal Feb 12 4:53 PM
droy4@gsuad.gsu.edu@snowball:~/Lab4
[droy4@gsuad.gsu.edu@snowball Lab4]$ sort mountainList.txt

Blood Mountain, (summit),4458,feet,Union County
Brasstown Bald, (summit),4784,feet,Union County
Coosa Bald, (summit),4288,feet,Union County
Counties
Dick's Knob, (summit),4620,feet,Rabun County
Double Spring Knob, (summit),4280,feet,Rabun County
Grassy Ridge, (ridge high point),4420,feet,Rabun County
Hightower Bald, (summit),4568,feet,Towns County
Rabun Bald, (summit),4696,feet,Rabun County
Slaughter Mountain, (summit),4338,feet,Union County
Table: Eleven highest mountains in Georgia
Table: Eleven highest mountains in Georgia
Tray Mountain, (summit), 4430,feet,Towns County
Wolfpen Ridge, (ridge high point),4561,feet,Towns and Union
[droy4@gsuad.gsu.edu@snowball Lab4]$
```

13.

```

Activities  Terminal  Feb 12 5:12 PM
droy4@gsuad.gsu.edu@snowball:~/Lab4

[droy4@gsuad.gsu.edu@snowball Lab4]$ sort -V mountainList.txt

Coosa Bald, (summit),4280,feet,Union County
Counties
Dick's Knob, (summit),4620,feet,Rabun County
Double Spring Knob, (summit),4280,feet,Rabun County
Rabun Bald, (summit),4696,feet,Rabun County
Slaughter Mountain, (summit),4338,feet,Union County
Table: Eleven highest mountains in Georgia
Table: Eleven highest mountains in Georgia
Tray Mountain, (summit), 4430,feet,Towns County
Wolfpen Ridge, (ridge high point),4561,feet,Towns and Union
Grassy Ridge, (ridge high point),4420,feet,Rabun County
Blood Mountain, (summit),4458,feet,Union County
Brasstown Bald, (summit),4784,feet,Union County
Hightower Bald, (summit),4568,feet,Towns County
[droy4@gsuad.gsu.edu@snowball Lab4]$

```

14.

```

Activities  Terminal  Feb 12 5:14 PM
droy4@gsuad.gsu.edu@snowball:~/Lab4

[droy4@gsuad.gsu.edu@snowball Lab4]$ sed -E 's/(Union)\s(County)/\1:\2/g' mountainList.txt
Table: Eleven highest mountains in Georgia
Table: Eleven highest mountains in Georgia
Brasstown Bald, (summit),4784,feet,Union:County

Rabun Bald, (summit),4696,feet,Rabun County
Dick's Knob, (summit),4620,feet,Rabun County

Hightower Bald, (summit),4568,feet,Towns County

Wolfpen Ridge, (ridge high point),4561,feet,Towns and Union
Counties

Blood Mountain, (summit),4458,feet,Union:County

Tray Mountain, (summit), 4430,feet,Towns County

Grassy Ridge, (ridge high point),4420,feet,Rabun County
Slaughter Mountain, (summit),4338,feet,Union:County
Double Spring Knob, (summit),4280,feet,Rabun County
Coosa Bald, (summit),4280,feet,Union:County
[droy4@gsuad.gsu.edu@snowball Lab4]$

```