## Part 2

1. Use vi to open "RealEstate.csv".

    a. **$vi RealEstate.csv**

2. Move the cursor to the last line (without knowing the number of last line)

    a. **Press escape twice then Capital G**

    b. **esc esc G**

3. Display line number.

    a. **Enter command mode with escape then colon set number**

    b. **esc :set number**

    c. **Last line number is 9316**

4. Search for the transaction for the estate located at "111 EAST"

    a. **Enter Command mode with escape / 111 EAST**

    b. **esc /111 EAST**

    c. Which line is this string located? (Please just write down the line number)

        i. **The string is located on line 58**

    d. Delete this line.

        i. **Enter command mode and press dd**

        ii. **esc dd**

5. Move the cursor to the line 50.

    a. **Enter command mode, colon 50**

    b. **esc :50**

6. Substitute all commas "," with colon ":" from line 50 to line 54.

    a. **Enter command mode, colon 50,54 s/ , /: /global**

       **b. esc :50,54s/,/:/g**

7. Copy line 50 to line 54 to the end of file.

       **a. Enter command modeGo to line 50, copy 5 lines with y5 then go to end of the page with G and paste with p**

       **b. esc :50 enter**

       **c. :y5 enter**

       **d. G**

       **e. p**

8. Remove line 50 to line 54.

       **a. :50,54d**

9. Describe how to enter the text mode and insert a new line "Recorded in year 2008" between line 1 and line 2.

       **a. Go to line 1 :1, then enter command mode and hit lowercase o to add a blank line between 1 and 2. Then press lowercase i to insert then type "Recorded in year 2008"**

       **b. :1**

       **c. o**
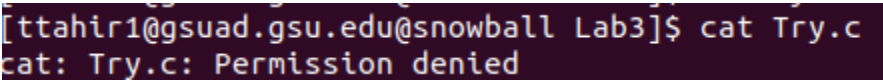
       **d. i**

       **e. "Recorded in year 2008"**

10. Switch back to command mode.

       **a. Press escape**

11. Save the file and quit vi.

       **a. esc :wq**

**Part 3**

1. 
```
[ttahir1@gsuad.gsu.edu@snowball Lab3]$ cat Try.c
cat: Try.c: Permission denied
```

2. Check the file permissions for file "Try.c" again. And explain the meaning of each character in the file permission string.

   a. **The file permission is -r--r--r--**

   b. **This means that owner,group, and public can only read this file they can not write or execute the file**

3. Can you find some error message at the bottom of the screen? If yes, what is it and how to quit the vi editor without saving the modification.

   a. **Yes there is an error message that says "'readonly' option is set (add ! to override)" to quit the vi editor you must type :wq! Which lets you leave the editor without saving what you did.**

4. Use chmod to add write permission to all the users for "Try.c".

   a. **chmod 666 Try.c**

5. Check the file permissions for file "Try.c" again. And explain the meaning of each character in the file permission string.

   a. **The file permission is -rw-rw-rw-**

   b. **This permission means that each group, the owner, group, and public can read the file and write in it. r means read and the w means write, while the empty - after the first one means that nobody has the write to execute the file.**

| Owner's permissions | ls<br>A. Read contents | mkdir<br>B. Create sub-directory | cat ><br>C. Create file | rm<br>D. Remove contents | cp<br>E. Copy contents from | cd<br>F. Enter into directory |
|---|---|---|---|---|---|---|
| --- | N | N | N | N/A | N/A | N |
| --x | N | N | N | N/A | N/A | Y |
| -w- | N | N | N | N/A | N/A | N |
| -wx | N | Y | Y | Y | Y | Y |
| r-- | Y | N | N | N/A | N/A | N |
| r-x | Y | N | Y | N/A | Y | Y |
| rw- | Y | N | N | N/A | N/A | N |
| rwx | Y | Y | Y | Y | Y | Y |