*** This guide \underline{can} and \underline{should} be distributed to students. It will greatly assist them in dealing with this issue that can arise. ***

If the CS Linux server remains idle for too long, it will become inactive and you have to close the server and login again. If the server became inactive while you had a file open that had unsaved changes in it, you can recover the file in what's called a "swap file". For example, let's say you had a file called "main.c" that you wanted to recover.

1) When you login to the servers again, open the file with "vim main.c". A message about the swap file will appear on the screen:

```
325: ATTENTION
Found a swap file by the name ".main.c.swp"
         owned by: bfriedml dated: Thu Jan 28 19:30:50 2021
        file name: ~bfriedml/TEST DIR/main.c
         modified: YES
        user name: bfriedml host name: cs4
       process ID: 12037
While opening file "main.c"
            dated: Thu Jan 28 19:29:59 2021
(1) Another program may be editing the same file. If this is the case,
   be careful not to end up with two different instances of the same
   file when making changes. Quit, or continue with caution.
(2) An edit session for this file crashed.
   If this is the case, use ":recover" or "vim -r main.c"
   to recover the changes (see ":help recovery").
   If you did this already, delete the swap file ".main.c.swp"
   to avoid this message.
 O]pen Read-Only, (E)dit anyway, (R)ecover, (D)elete it, (Q)uit, (A)bort:
```

2) Enter "r" to recover it. Then the message below will appear.

```
Swap file ".main.c.swp" already exists!

"main.c" 5L, 69C

Using swap file ".main.c.swp"

Original file "~/TEST_DIR/main.c"

Recovery completed. You should check if everything is OK.

(You might want to write out this file under another name and run diff with the original file to check for changes)

You may want to delete the .swp file now.

Press ENTER or type command to continue
```

- 3) Press "enter" to finish
- 4) The file will open. Immediately save the file. Although you have recovered the file, the file is still in it's unsaved state.
- 5) When you're done with the file and are back in the terminal, you can delete the swap file. Swap files start with the period character and are always in the format ".file_name.swp" so if my file name were main.c, enter "rm .main.c.swp" to delete the swap file.