Lab 1: Basic Unix Commands

(NOTE: The lab must be completed on cslinux machine by using remote login. Write down each question before you answer it.)

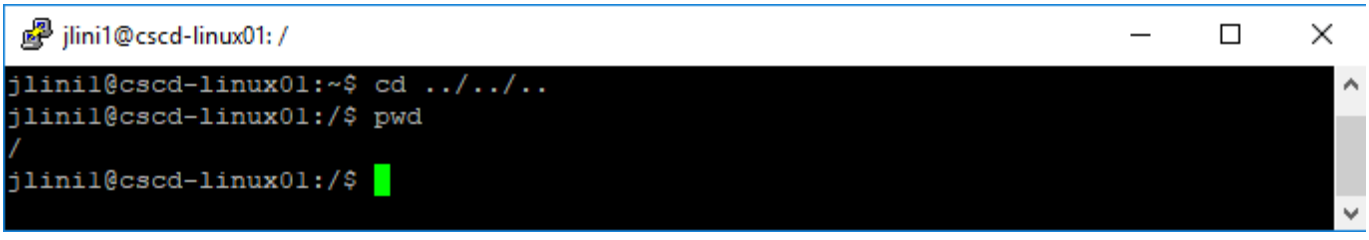
Question 1: (For each question below, you need to capture the screenshots along with the commands).

Suppose, you are in your home directory (i.e., /home/EASTERN/*your_user_id*).

a) What will be printed by **pwd** after you run the following command? **(1 point)**

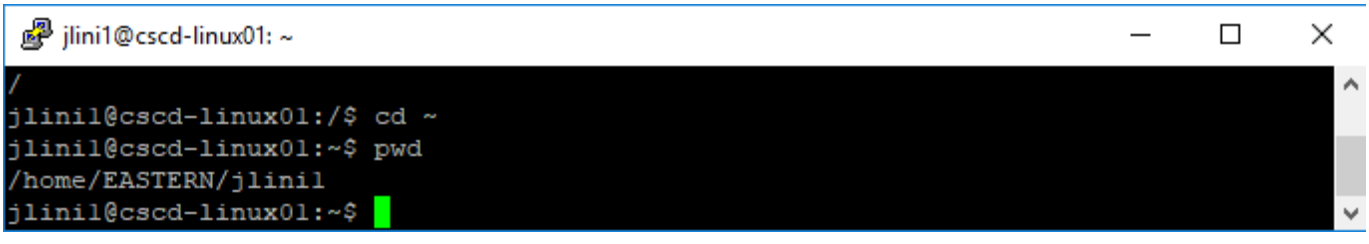
cd ../../../

/

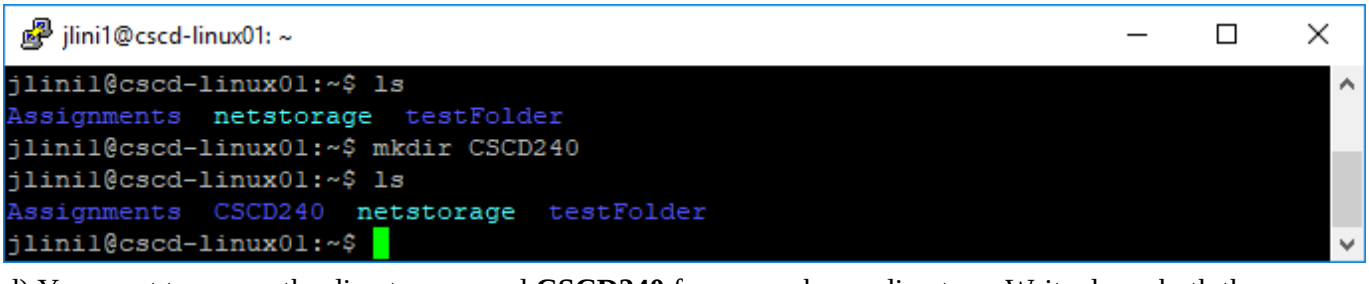


b) What command will bring you back to your home directory? **(1 point)**

cd ~



c) Under your home directory, create a directory named **CSCD240**. **(1 point)**



d) You want to access the directory named **CSCD240** from your home directory. Write down both the **absolute path** and **relative path** for that. **(2 points)**

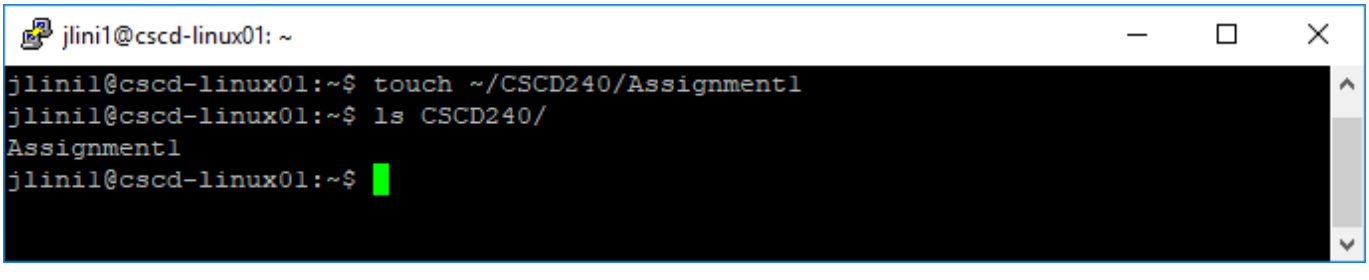
/home/EASTERN/jlini1/CSCD240

CSCD240

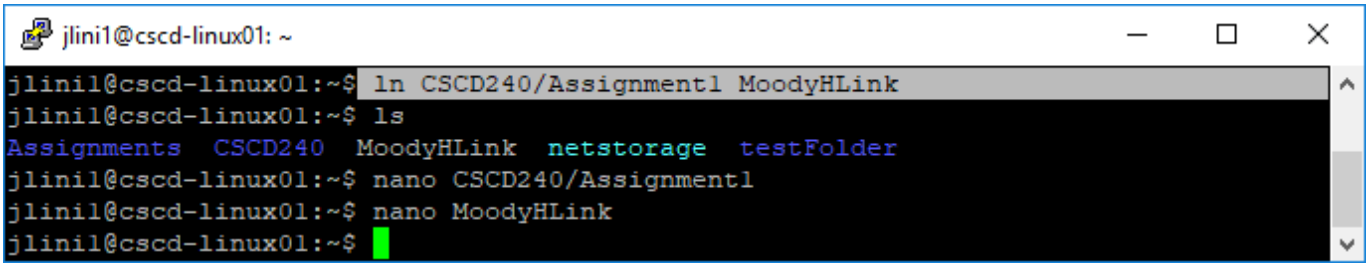
e) After running the command in **d)**, what command will you use to figure out your current working directory? **(1 point)**

pwd

f) Create a file named **Assignment1** under **CSCD240**. **(1 point)**

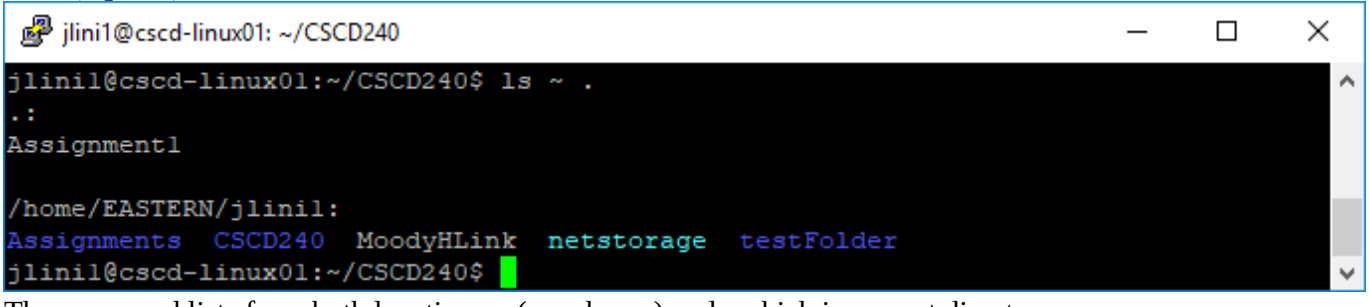


g) Create a hard link for the file named **Assignment1** in your current directory. You can choose any name. **(1 point)**



h) Suppose you are now in **CSCD240** folder. What output will be produced by the following command? Explain.

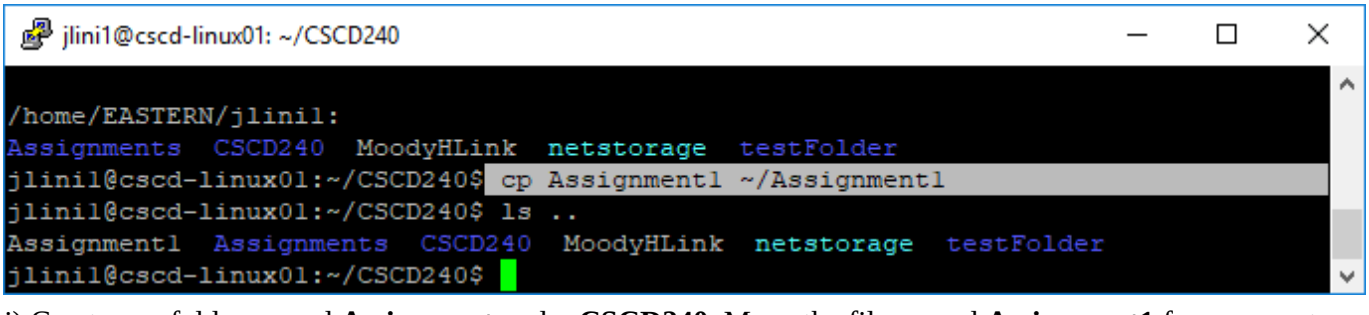
ls ~ . (1 point)



The command lists from both locations ~ (user home) and . which is current directory

i) You need to copy **Assignment1** file from your current directory (**CSCD240**) to your home directory. What command will you use? **(1 point)**

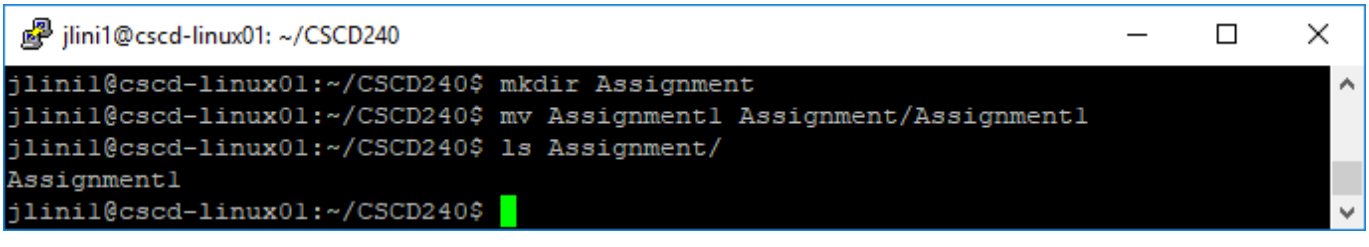
cp Assignment1 ~/Assignment1



j) Create one folder named **Assignment** under **CSCD240**. Move the file named **Assignment1** from current folder (**CSCD240**) to **Assignment** folder. What commands will you use? **(2 points)**

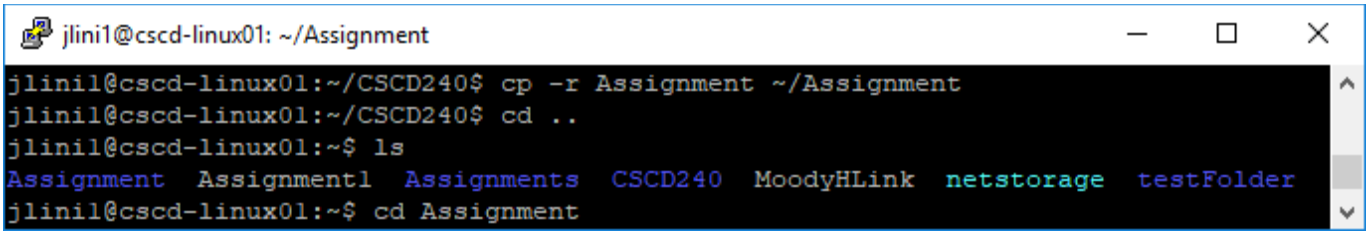
mkdir Assignment

mv Assignment1 Assignment/Assignment1



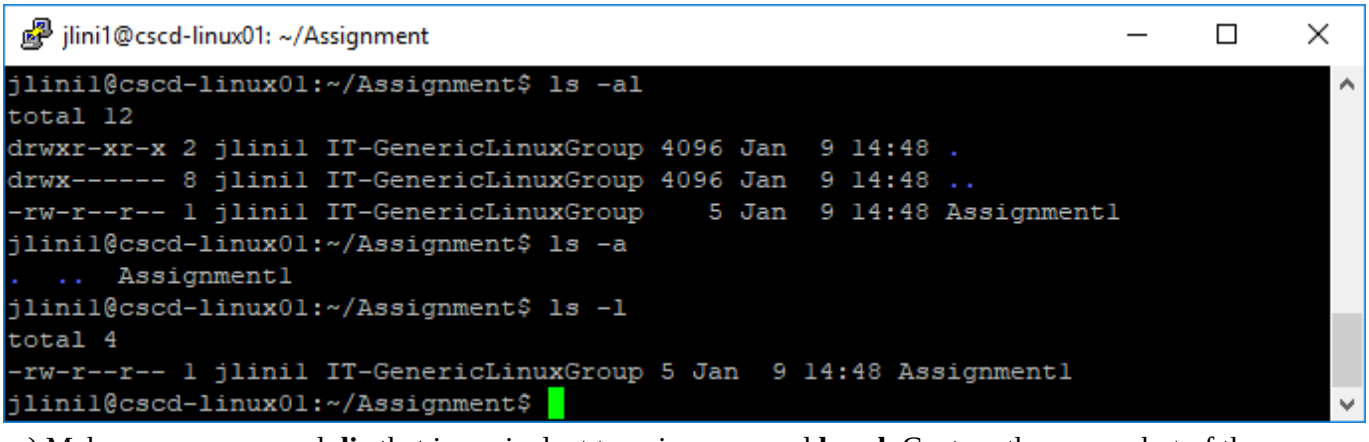
k) Copy the **Assignment** folder from current folder (CSCD240) to your home directory. What command will you use? **(1 point)**

cp -r Assignment ~/Assignment

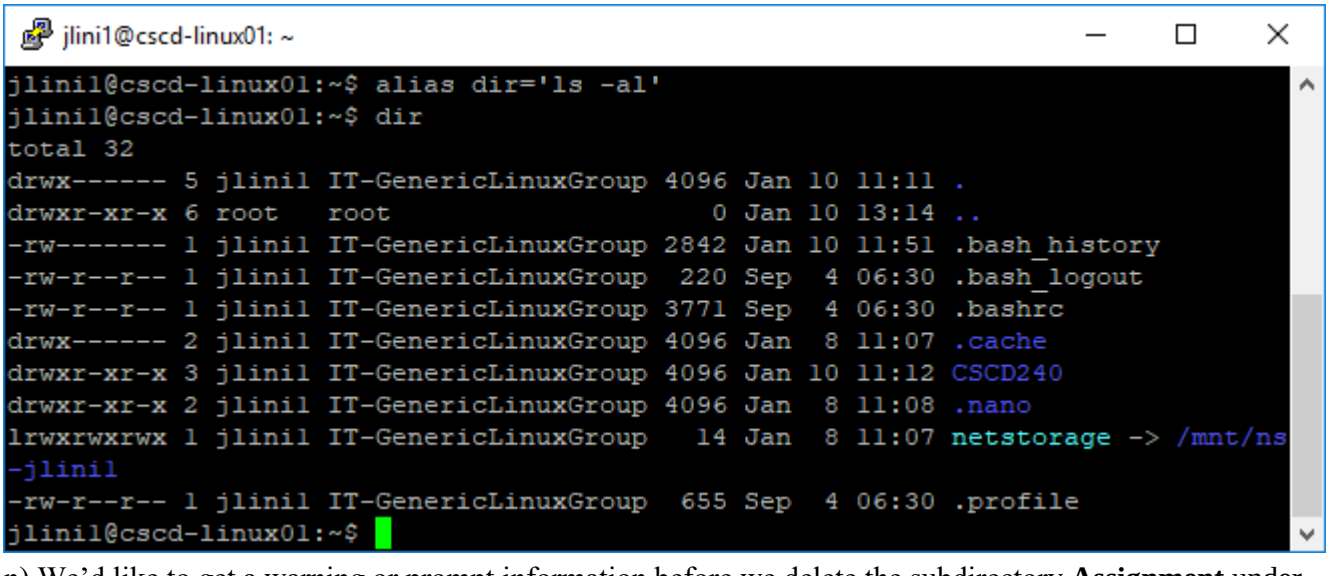


l) What is the difference between '**ls –l**' and '**ls –al**' commands? **(1 point)**

ls -l and ls -al both list detailed info, but -al includes all files (even hidden)



m) Make a new command **dir** that is equivalent to unix command **ls –al**. Capture the screenshot of the command that can achieve that and the results. **(1 point)**



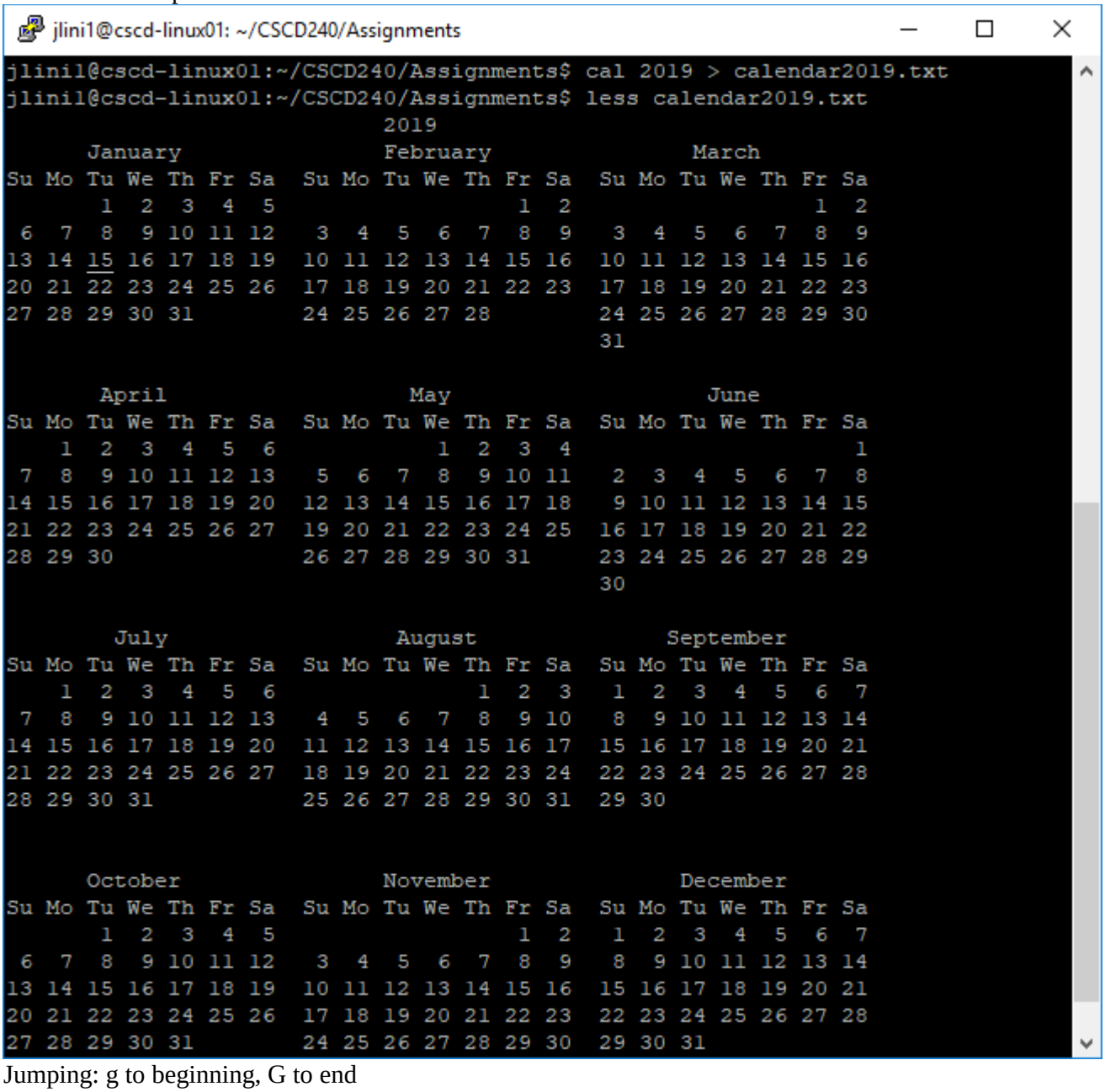
n) We'd like to get a warning or prompt information before we delete the subdirectory **Assignment** under **CSCD240**. What command will you use? **(1 point)**

rm -i -r CSCD240\Assignment

o) Use **rmdir** to delete subdirectory **Assignment** under **CSCD240**. Does it delete the directory? Why or why not? **(1 point)**

The command does not delete the subdirectory when the directory is not empty

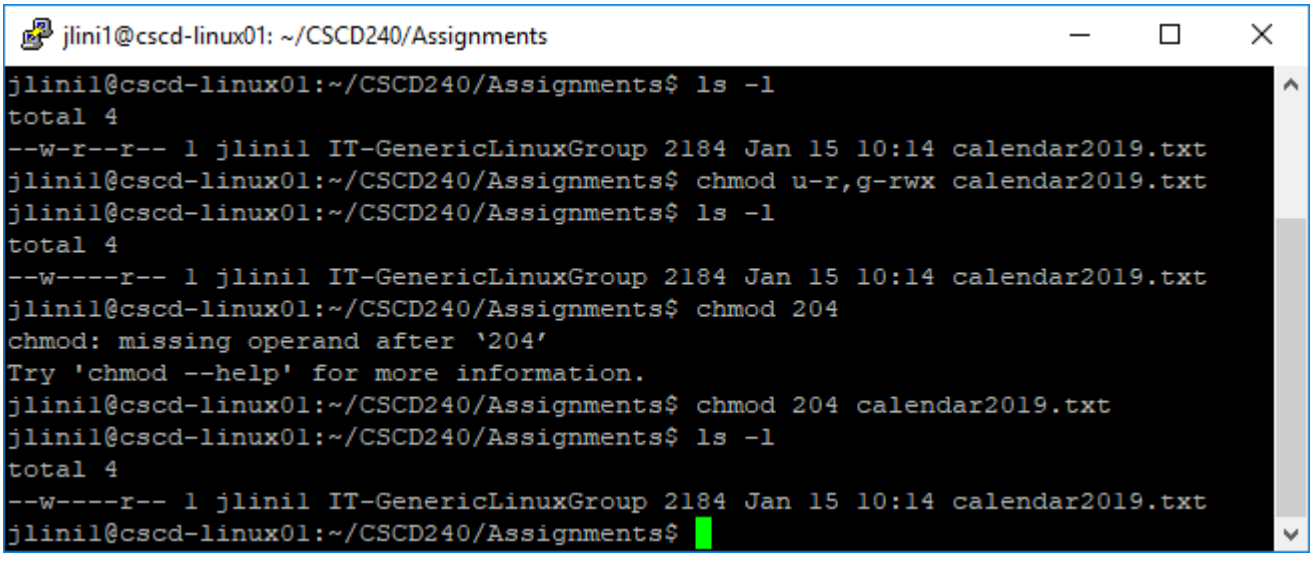
Question 2. Suppose you are in your home directory.
a) Create a text file named **calendar2019.txt** using command **cal 2019 > calendar2019.txt**. Issue the **more** command or the **less** command on **calendar2019.txt** and capture the screenshot of the output. How to move to the beginning of **calendar2019.txt** in **less**? How to move to the end of **calendar2019.txt** in **less**? How to scroll down or up?



Jumping: g to beginning, G to end
Scrolling: arrow keys or e(down) y(up)

(5 points, one for each question)
b) Remove **read permission** from **calendar2019.txt** for the owner and **all permissions** for the group. Write down the commands using both symbolic and numeric (octal) values. Capture the screenshot for the commands and prove that the permission was changed.
chmod u-r,g-rwx calendar2019.txt

chmod 204 calendar.txt



(4 points ; 2 points for each command)

Question 3. Explain the following outputs from a unix command: **(4 points, one for each)**

This is the output of the command "ls -l"

-rw-r--r-- 1 syasmin IT-GenericLinuxGroup 3637 Sep 21 2015 file.txt

The file "file.txt" is owned by syasmin and has read permissions for all, and write for user, no execute

drwx------ 16 syasmin IT-GenericLinuxGroup 4096 Mar 29 2016 CSCD240

The directory "CSCD240" has all permissions enabled for only the user

lrwxrwxrwx 1 syasmin IT-GenericLinuxGroup 15 Nov 21 2015 netstorage -> /mnt/ns-syasmin

The soft link "netstorage" has all permissions for everyone and is an alias for /mnt/ns-syasmin

-rw-r--r-- 2 syasmin IT-GenericLinuxGroup 80 Jan 24 2017 hello.c

The file "hello.c" has read for all, and write for user, no execute

Submission:

- Submit the assignment by creating a PDF file. Name this file as follows: your last name, first letter of your first name; Lab1.pdf (i.e., **YasminSLab1.pdf**). This file will contain all your answers. Each question should be copied first and then answered.
- Please note that some questions have more than one part. Please note that for those questions, points have been assigned separately for each part. You'll miss points if you don't answer all parts.
- You should turn in the assignment through EWU Canvas system.
- You need to follow the assignment specification properly. You'll lose points if you fail to meet the assignment specifications.
- **Submission deadline is Wednesday, January 16, 2019 11: 59 pm.**
- No late submission will be accepted.