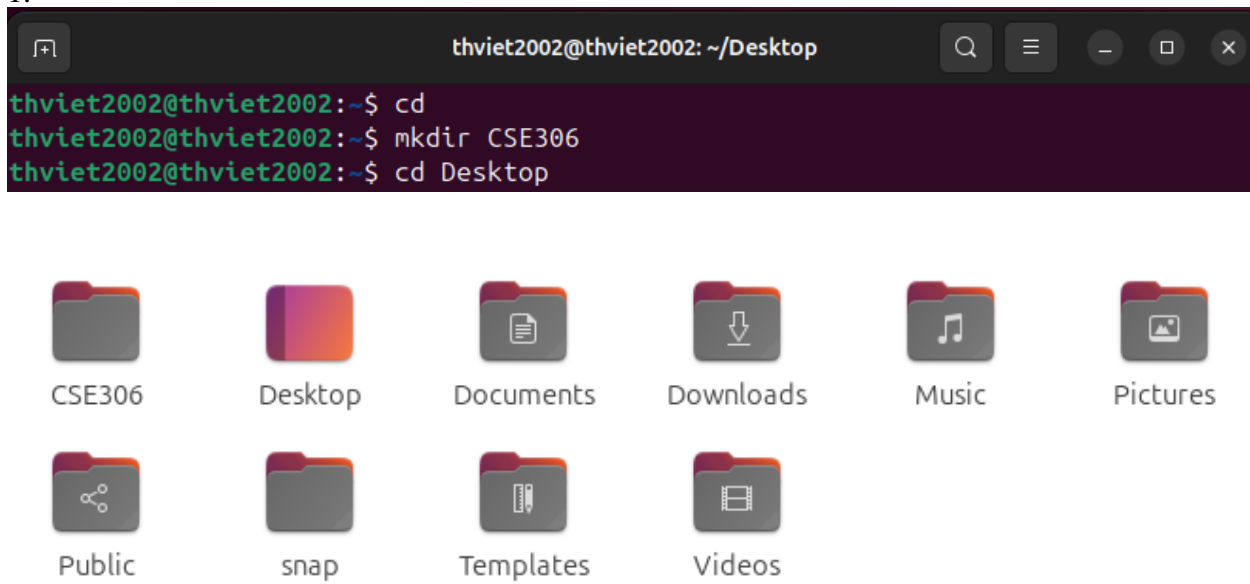
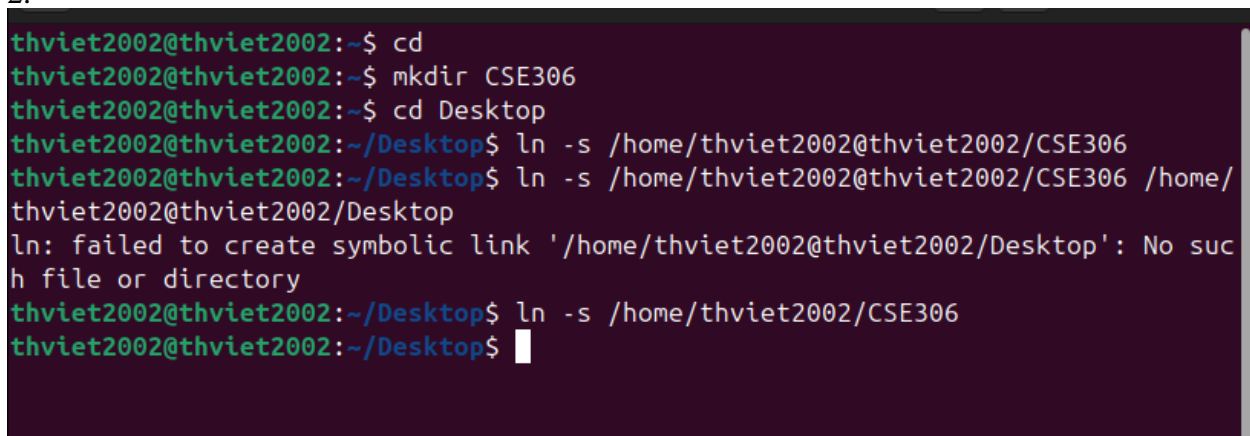
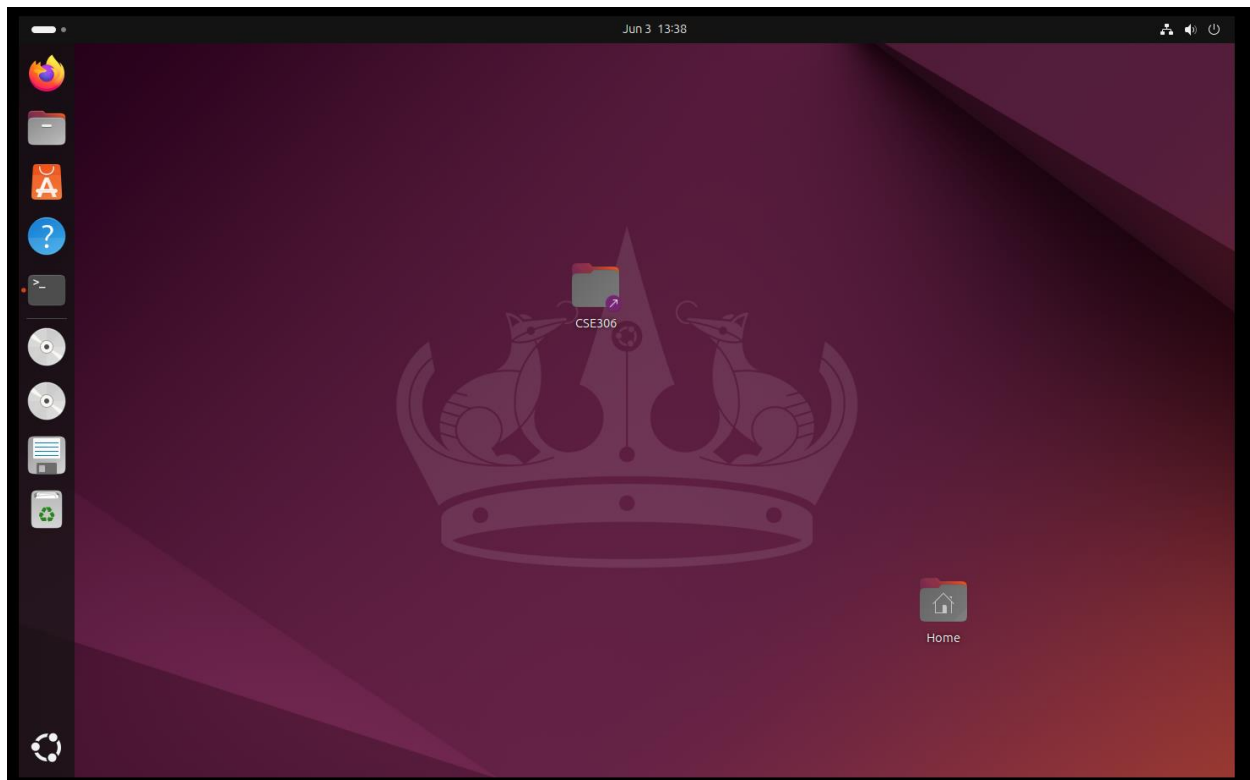


1.



2.



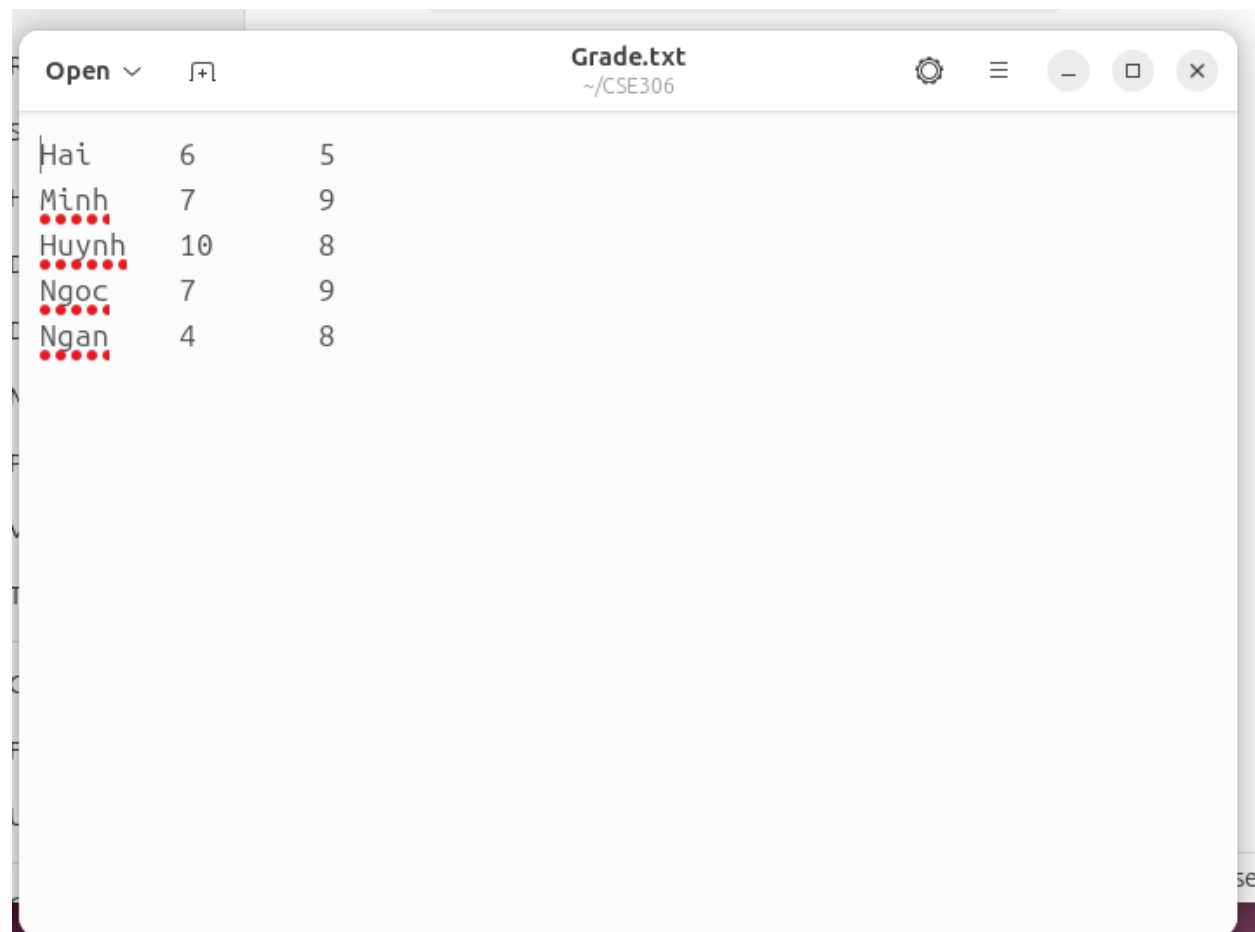


3.

```
thviet2002@thviet2002: ~/Desktop/CSE306
thviet2002@thviet2002:~$ cd
thviet2002@thviet2002:~$ mkdir CSE306
thviet2002@thviet2002:~$ cd Desktop
thviet2002@thviet2002:~/Desktop$ ln -s /home/thviet2002@thviet2002/CSE306
thviet2002@thviet2002:~/Desktop$ ln -s /home/thviet2002@thviet2002/CSE306 /home/
thviet2002@thviet2002/Desktop
ln: failed to create symbolic link '/home/thviet2002@thviet2002/Desktop': No suc
n file or directory
thviet2002@thviet2002:~/Desktop$ ln -s /home/thviet2002/CSE306
thviet2002@thviet2002:~/Desktop$ cd CSE306
thviet2002@thviet2002:~/Desktop/CSE306$ touch text.txt
thviet2002@thviet2002:~/Desktop/CSE306$ mkdir Text
thviet2002@thviet2002:~/Desktop/CSE306$ ls -a
.  ..  Text  text.txt
thviet2002@thviet2002:~/Desktop/CSE306$
```

4.

```
thviet2002@thviet2002:~/Desktop/CSE306$ touch text.txt
thviet2002@thviet2002:~/Desktop/CSE306$ mkdir Text
thviet2002@thviet2002:~/Desktop/CSE306$ ls -a
.  ..  Text  text.txt
thviet2002@thviet2002:~/Desktop/CSE306$ touch Grade.txt
thviet2002@thviet2002:~/Desktop/CSE306$ nano ~/CSE306/Grade.txt
thviet2002@thviet2002:~/Desktop/CSE306$
```

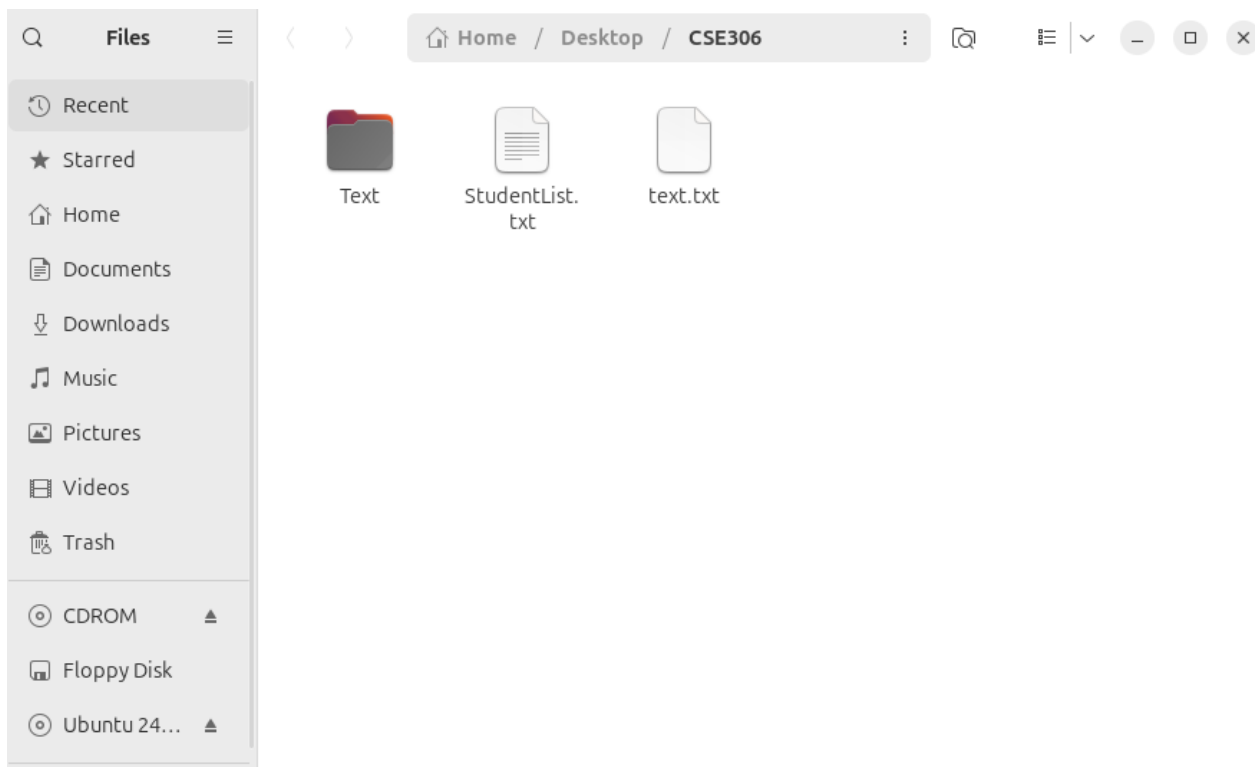


The screenshot shows a nano text editor window titled "Grade.txt" with the path "~/CSE306". The editor contains a table with three columns: names, scores, and another set of scores. The names are Hai, Minh, Huynh, Ngoc, and Ngan. The scores are 6, 7, 10, 7, and 4 respectively. The second set of scores is 5, 9, 8, 9, and 8. The names Minh, Huynh, Ngoc, and Ngan are highlighted with red dots.

Name	Score 1	Score 2
Hai	6	5
Minh	7	9
Huynh	10	8
Ngoc	7	9
Ngan	4	8

5.

```
thviet2002@thviet2002:~/Desktop/CSE306$ touch Grade.txt
thviet2002@thviet2002:~/Desktop/CSE306$ nano ~/CSE306/Grade.txt
thviet2002@thviet2002:~/Desktop/CSE306$ mv Grade.txt StudentList.txt
thviet2002@thviet2002:~/Desktop/CSE306$
```

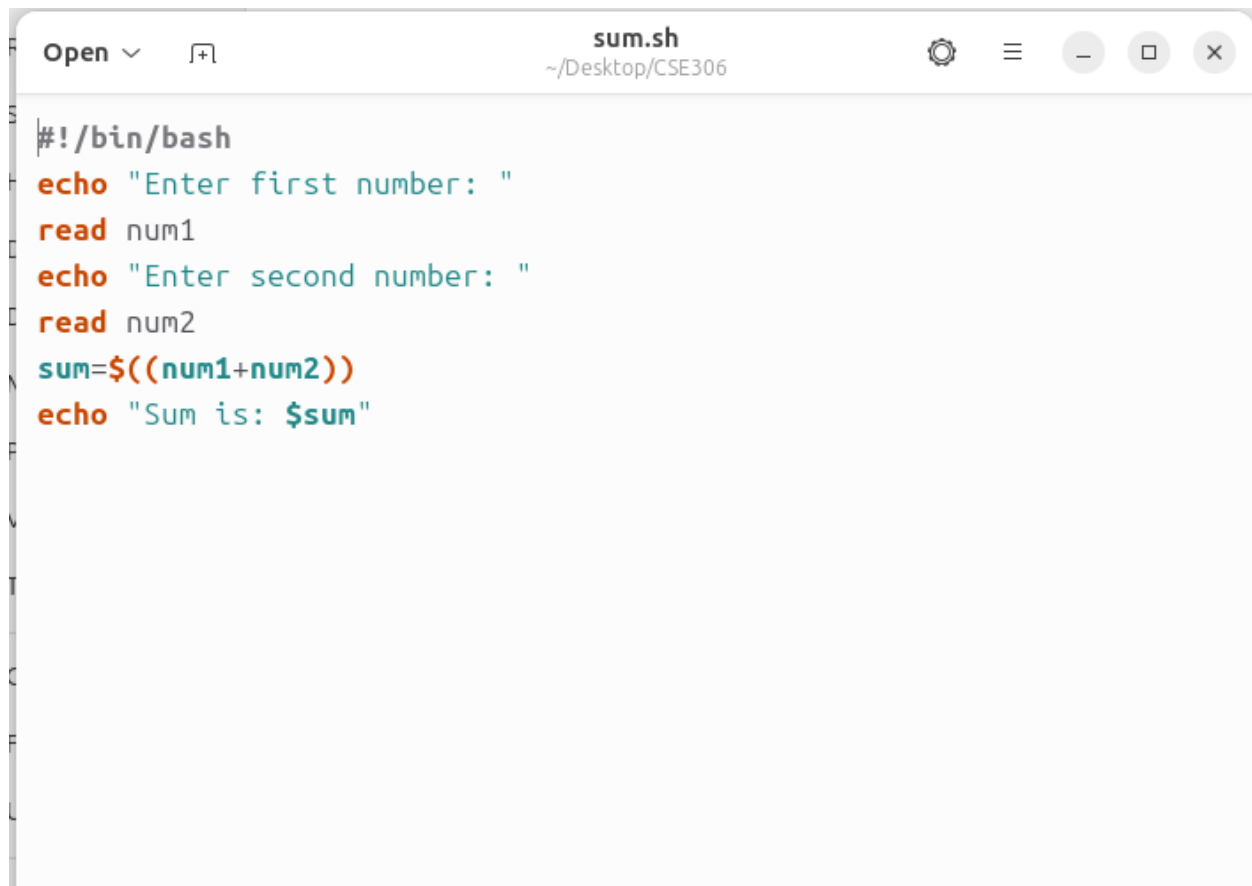


6.

```
help: usage: help [-dms] [pattern ...]
thviet2002@thviet2002:~/Desktop/CSE306$ sort -r StudentList.txt
Ngoc      7      9
Ngan      4      8
Minh      7      9
Huynh    10      8
Hai       6      5
thviet2002@thviet2002:~/Desktop/CSE306$
```

7.

```
Hai       6      5
thviet2002@thviet2002:~/Desktop/CSE306$ touch sum.sh
thviet2002@thviet2002:~/Desktop/CSE306$ nano sum.sh
thviet2002@thviet2002:~/Desktop/CSE306$
```

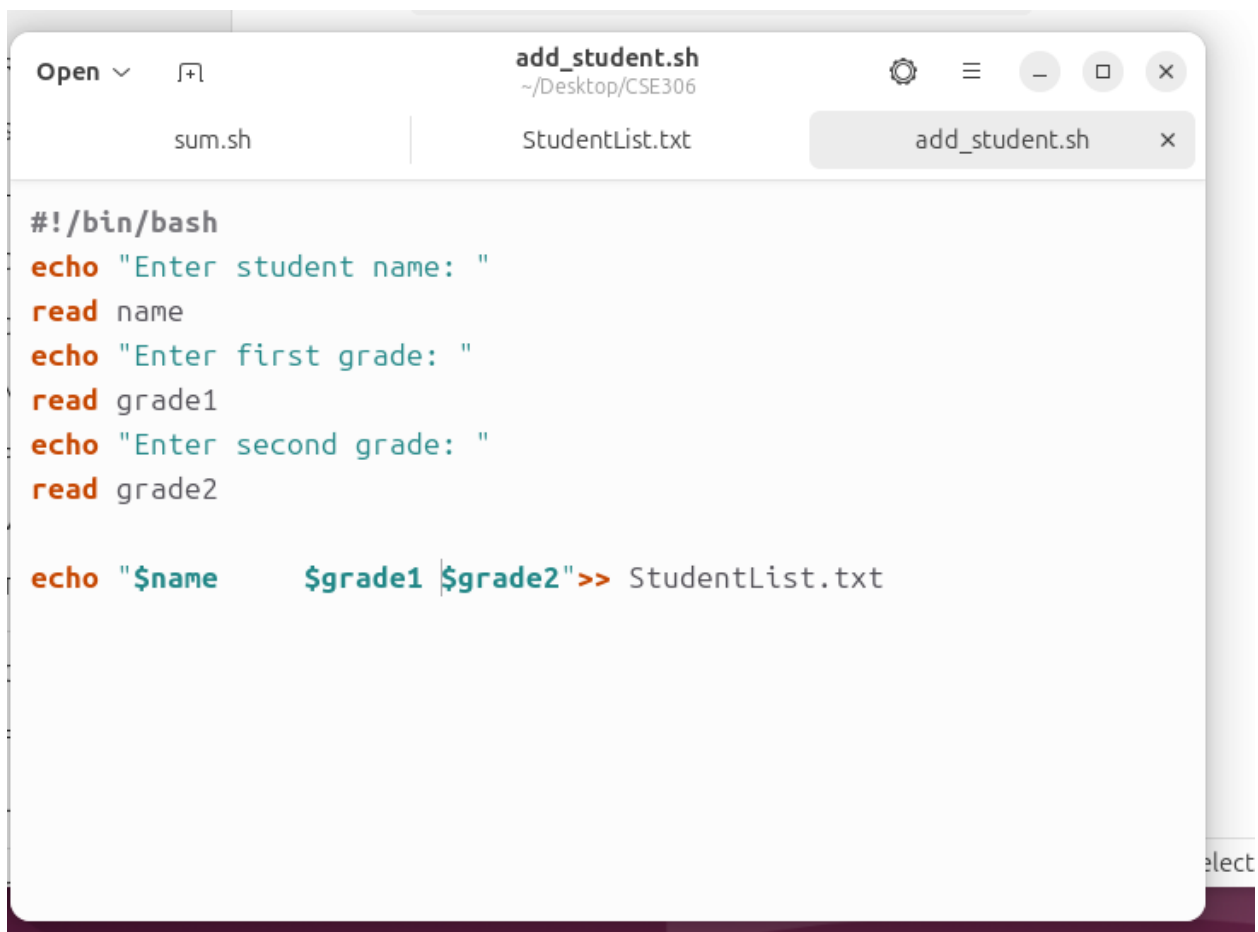


```
#!/bin/bash
echo "Enter first number: "
read num1
echo "Enter second number: "
read num2
sum=$((num1+num2))
echo "Sum is: $sum"
```

```
thviet2002@thviet2002:~/Desktop/CSE306$ touch sum.sh
thviet2002@thviet2002:~/Desktop/CSE306$ nano sum.sh
thviet2002@thviet2002:~/Desktop/CSE306$ chmod +x CSE306/sum.sh
chmod: cannot access 'CSE306/sum.sh': No such file or directory
thviet2002@thviet2002:~/Desktop/CSE306$ chmox +x ~/CSE306/sum.sh
Command 'chmox' not found, did you mean:
  command 'chmod' from deb coreutils (9.4-2ubuntu2)
Try: sudo apt install <deb name>
thviet2002@thviet2002:~/Desktop/CSE306$ chmod +x ~/CSE306/sum.sh
thviet2002@thviet2002:~/Desktop/CSE306$ sum.sh 3 5
sum.sh: command not found
thviet2002@thviet2002:~/Desktop/CSE306$ ~/CSE306/sum.sh 3 5
Enter first number:
3
Enter second number:
5
Sum is: 8
thviet2002@thviet2002:~/Desktop/CSE306$
```

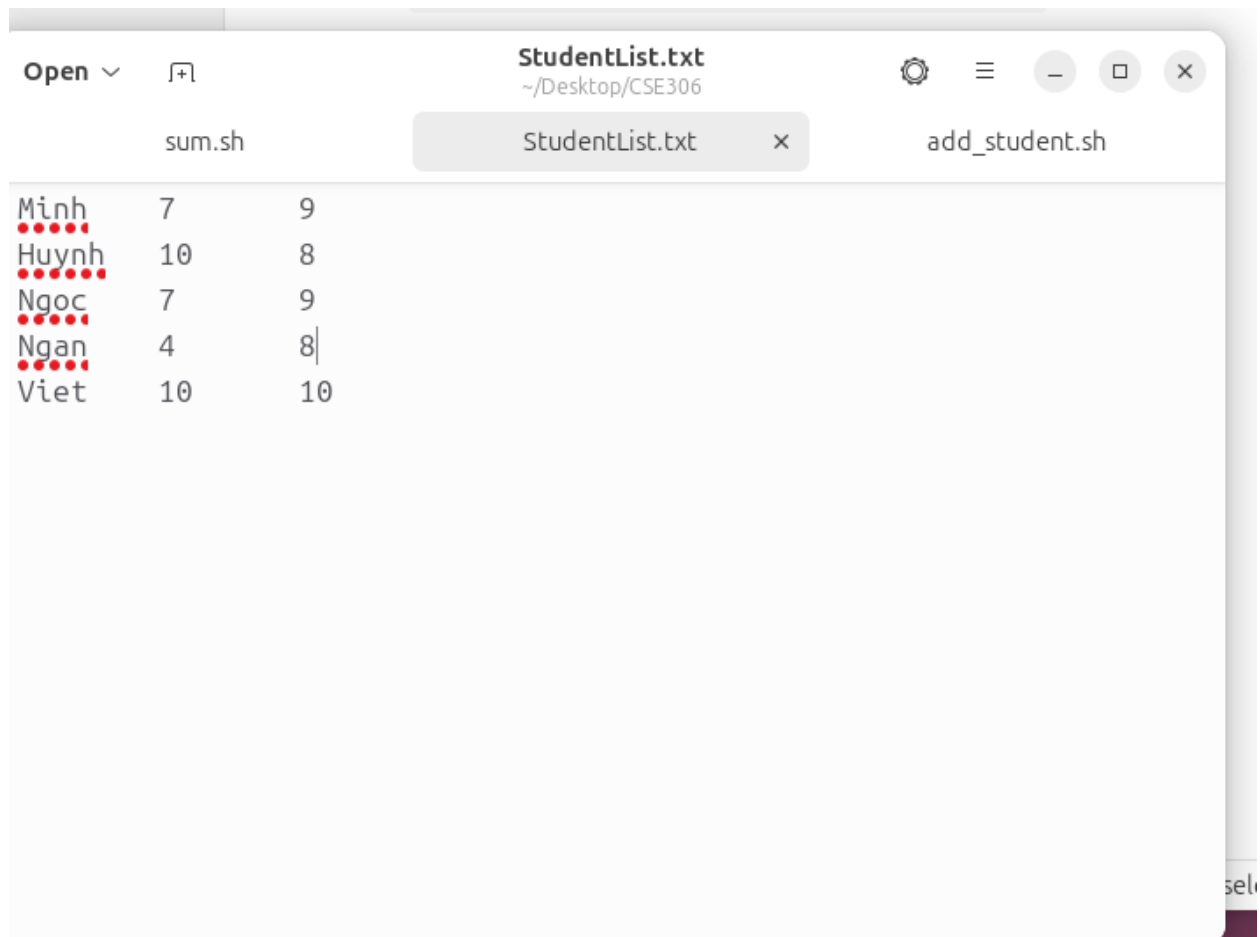
8.

```
thviet2002@thviet2002:~/CSE306$ touch add_student.sh
thviet2002@thviet2002:~/CSE306$ nano add_student.sh
thviet2002@thviet2002:~/CSE306$ chmod +x add_student.sh
thviet2002@thviet2002:~/CSE306$ add_student.sh
add_student.sh: command not found
thviet2002@thviet2002:~/CSE306$ ~/CSE306/add_student.sh
Enter student name:
Viet
Enter first grade:
10
Enter second grade:
10
```



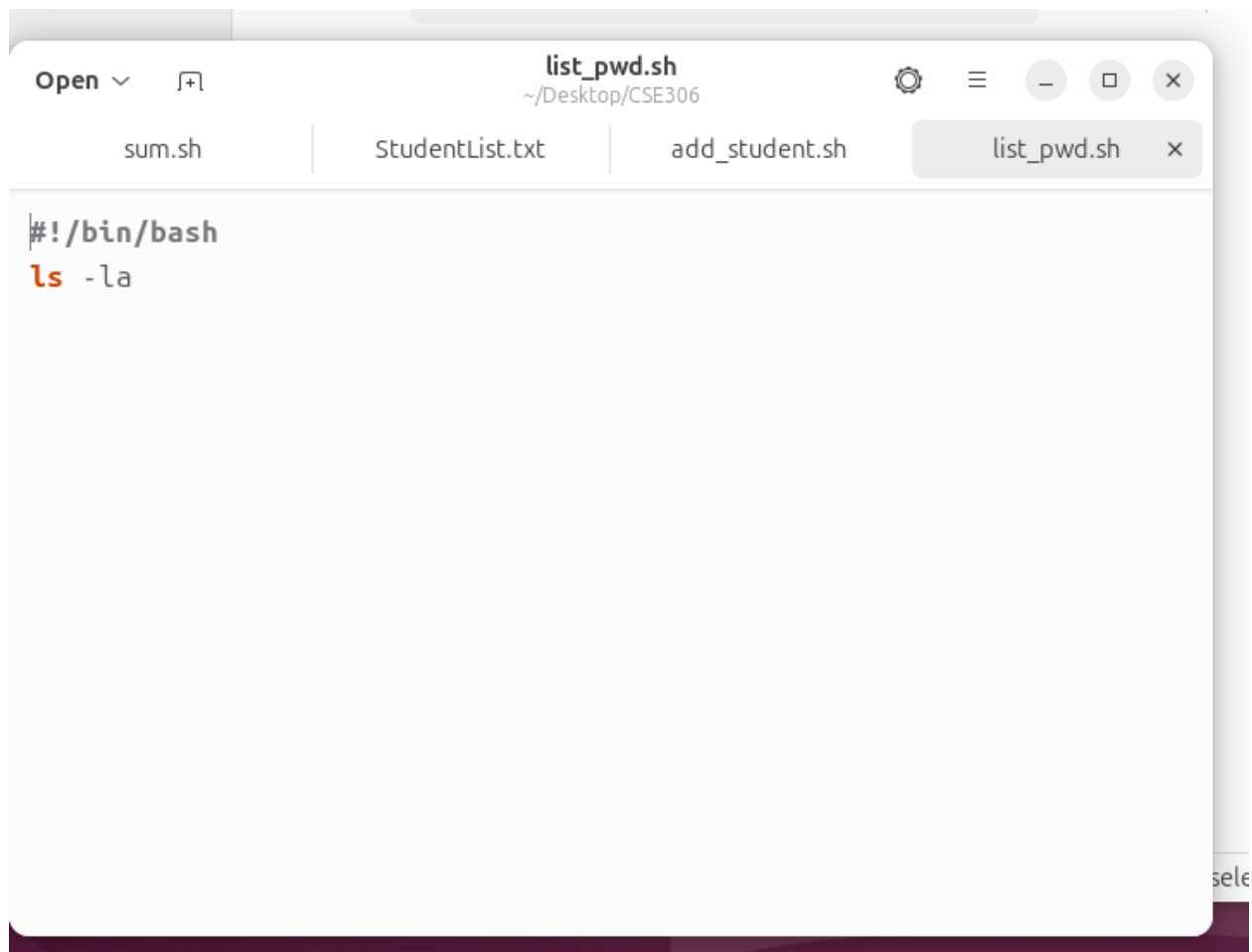
```
#!/bin/bash
echo "Enter student name: "
read name
echo "Enter first grade: "
read grade1
echo "Enter second grade: "
read grade2

echo "$name      $grade1 $grade2">> StudentList.txt
```



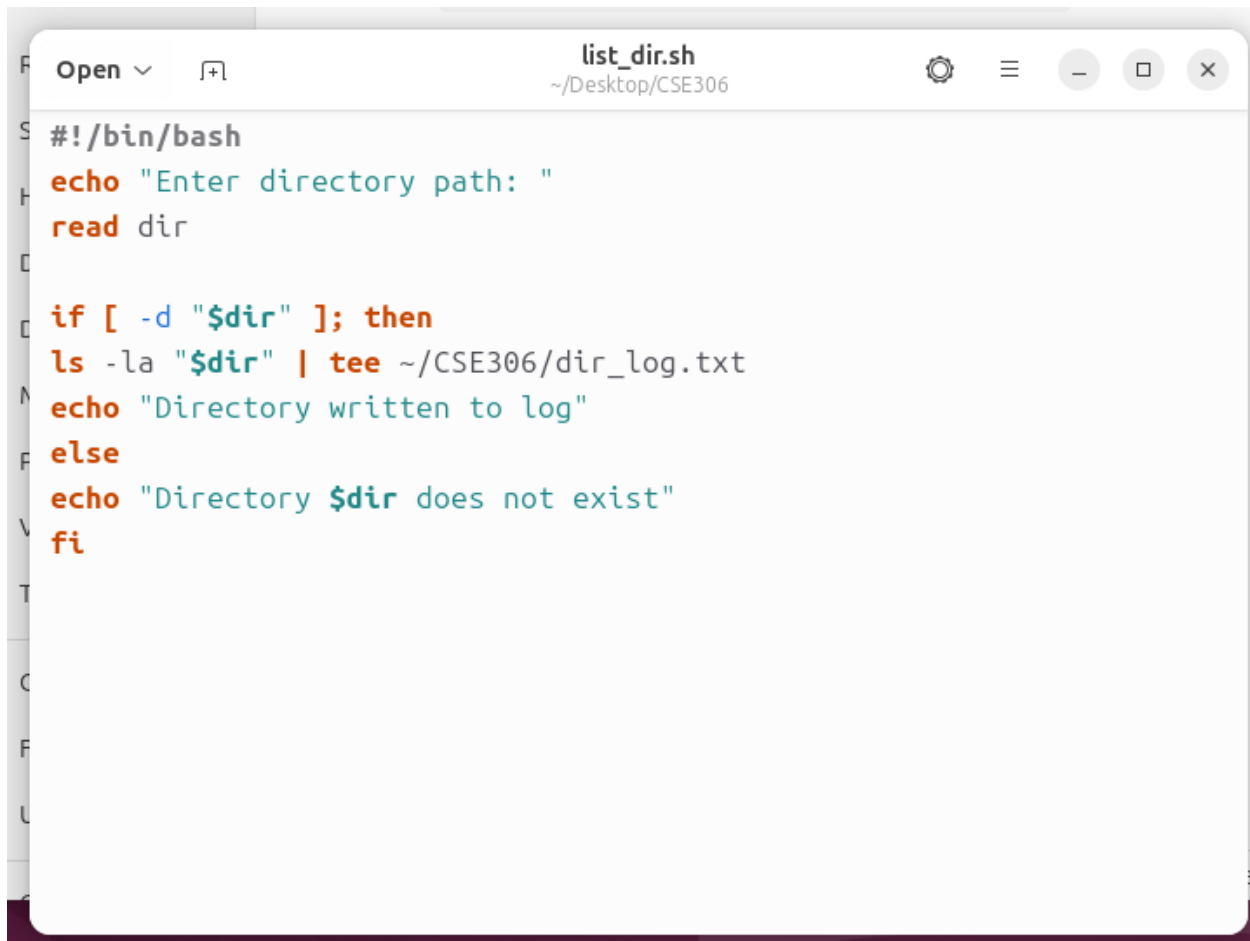
9.

```
thviet2002@thviet2002: ~/CSE306
thviet2002@thviet2002:~/CSE306$ touch list_pwd.sh
thviet2002@thviet2002:~/CSE306$ nano list_pwd.sh
thviet2002@thviet2002:~/CSE306$ chmod +x list_pwd.sh
thviet2002@thviet2002:~/CSE306$ ~/CSE306/list_pwd.sh
total 28
drwxrwxr-x  3 thviet2002 thviet2002 4096 Jun  3 14:12 .
drwxr-x--- 16 thviet2002 thviet2002 4096 Jun  3 13:32 ..
-rwxrwxr-x  1 thviet2002 thviet2002  177 Jun  3 14:09 add_student.sh
-rwxrwxr-x  1 thviet2002 thviet2002   19 Jun  3 14:12 list_pwd.sh
-rw-rw-r--  1 thviet2002 thviet2002   57 Jun  3 14:10 StudentList.txt
-rwxrwxr-x  1 thviet2002 thviet2002  128 Jun  3 13:55 sum.sh
drwxrwxr-x  2 thviet2002 thviet2002 4096 Jun  3 13:39 Text
-rw-rw-r--  1 thviet2002 thviet2002    0 Jun  3 13:39 text.txt
thviet2002@thviet2002:~/CSE306$
```

10.

```
thviet2002@thviet2002:~/CSE306$ ~/CSE306/list_dir.sh
Enter directory path:
CSE306
Directory CSE306 does not exist
thviet2002@thviet2002:~/CSE306$ ~/CSE306/list_dir.sh
Enter directory path:
/home/thviet2002/Documents
total 8
drwxr-xr-x  2 thviet2002 thviet2002 4096 May 28 13:02 .
drwxr-x--- 16 thviet2002 thviet2002 4096 Jun  3 13:32 ..
Directory written to log
thviet2002@thviet2002:~/CSE306$
```

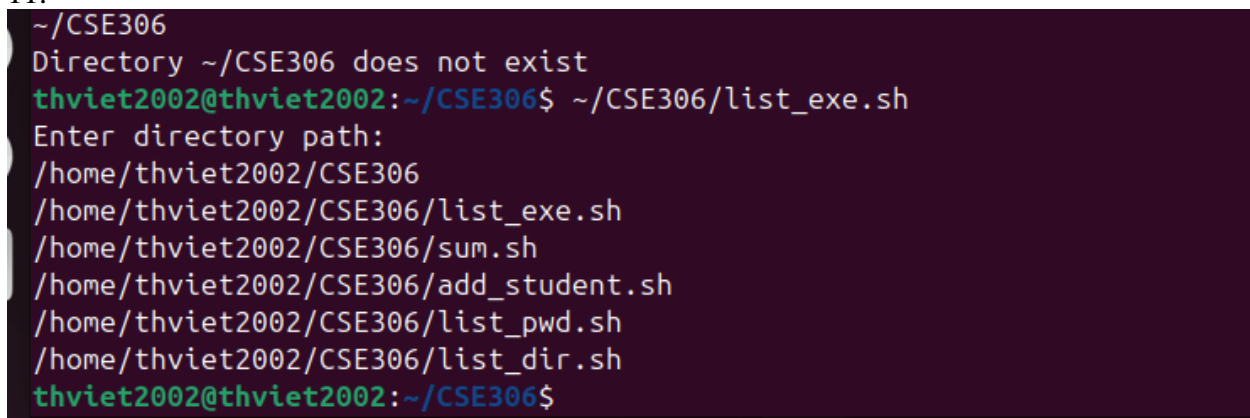


The screenshot shows a code editor window with the title 'list_dir.sh' and a path '~ / Desktop / CSE306'. The script content is as follows:

```
#!/bin/bash
echo "Enter directory path: "
read dir

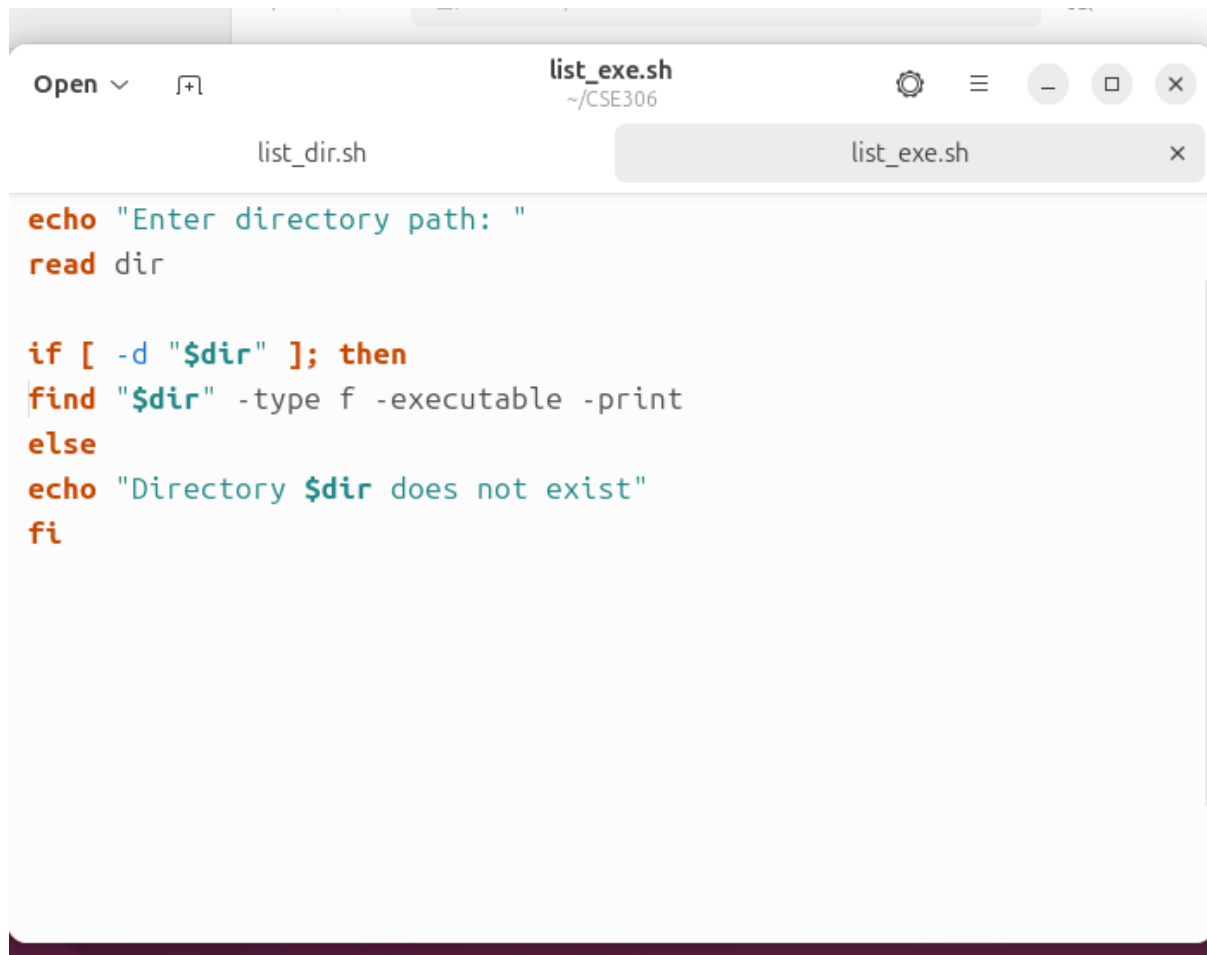
if [ -d "$dir" ]; then
ls -la "$dir" | tee ~/CSE306/dir_log.txt
echo "Directory written to log"
else
echo "Directory $dir does not exist"
fi
```

11.



The screenshot shows a terminal window with the following output:

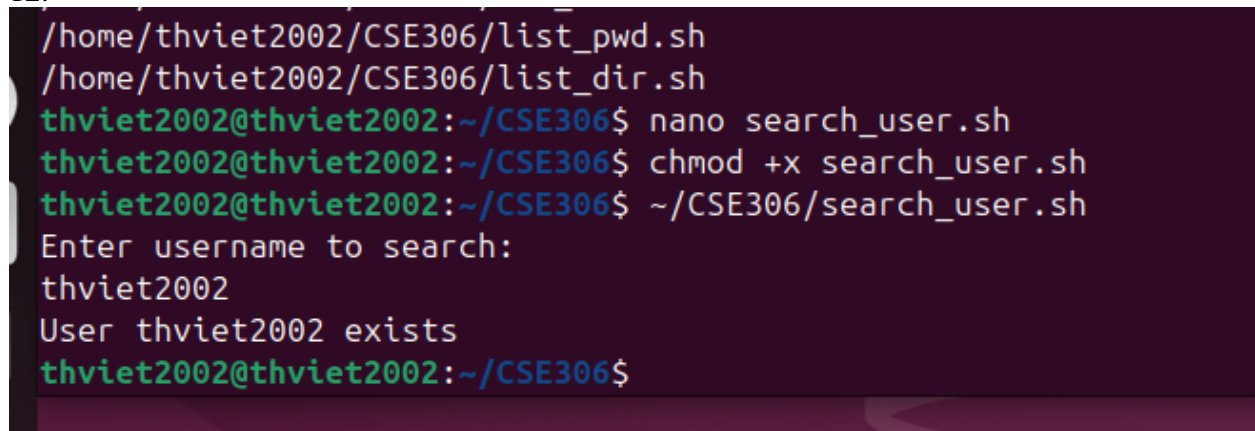
```
~/CSE306
Directory ~/CSE306 does not exist
thviet2002@thviet2002:~/CSE306$ ~/CSE306/list_exe.sh
Enter directory path:
/home/thviet2002/CSE306
/home/thviet2002/CSE306/list_exe.sh
/home/thviet2002/CSE306/sum.sh
/home/thviet2002/CSE306/add_student.sh
/home/thviet2002/CSE306/list_pwd.sh
/home/thviet2002/CSE306/list_dir.sh
thviet2002@thviet2002:~/CSE306$
```



The screenshot shows a code editor window with two tabs: 'list_dir.sh' and 'list_exe.sh'. The 'list_exe.sh' tab is active, displaying the following shell script code:

```
echo "Enter directory path: "  
read dir  
  
if [ -d "$dir" ]; then  
find "$dir" -type f -executable -print  
else  
echo "Directory $dir does not exist"  
fi
```

12.



The screenshot shows a terminal window with the following commands and output:

```
/home/thviet2002/CSE306/list_pwd.sh  
/home/thviet2002/CSE306/list_dir.sh  
thviet2002@thviet2002:~/CSE306$ nano search_user.sh  
thviet2002@thviet2002:~/CSE306$ chmod +x search_user.sh  
thviet2002@thviet2002:~/CSE306$ ~/CSE306/search_user.sh  
Enter username to search:  
thviet2002  
User thviet2002 exists  
thviet2002@thviet2002:~/CSE306$
```

The image shows a file manager window with a dark purple header bar. The address bar indicates the current location is 'Home / CSE306'. A file named 'search_user.sh' is open, showing its contents in a light gray editor. The script is a bash script that prompts the user for a username and checks if it exists in the /etc/passwd file using the 'grep' command. The script's output depends on whether the username is found. In the background, other files like 'list_dir.sh', 'list_exe.sh', and 'list_pwd.sh' are visible, along with a file size indicator 'selected (174 by'.

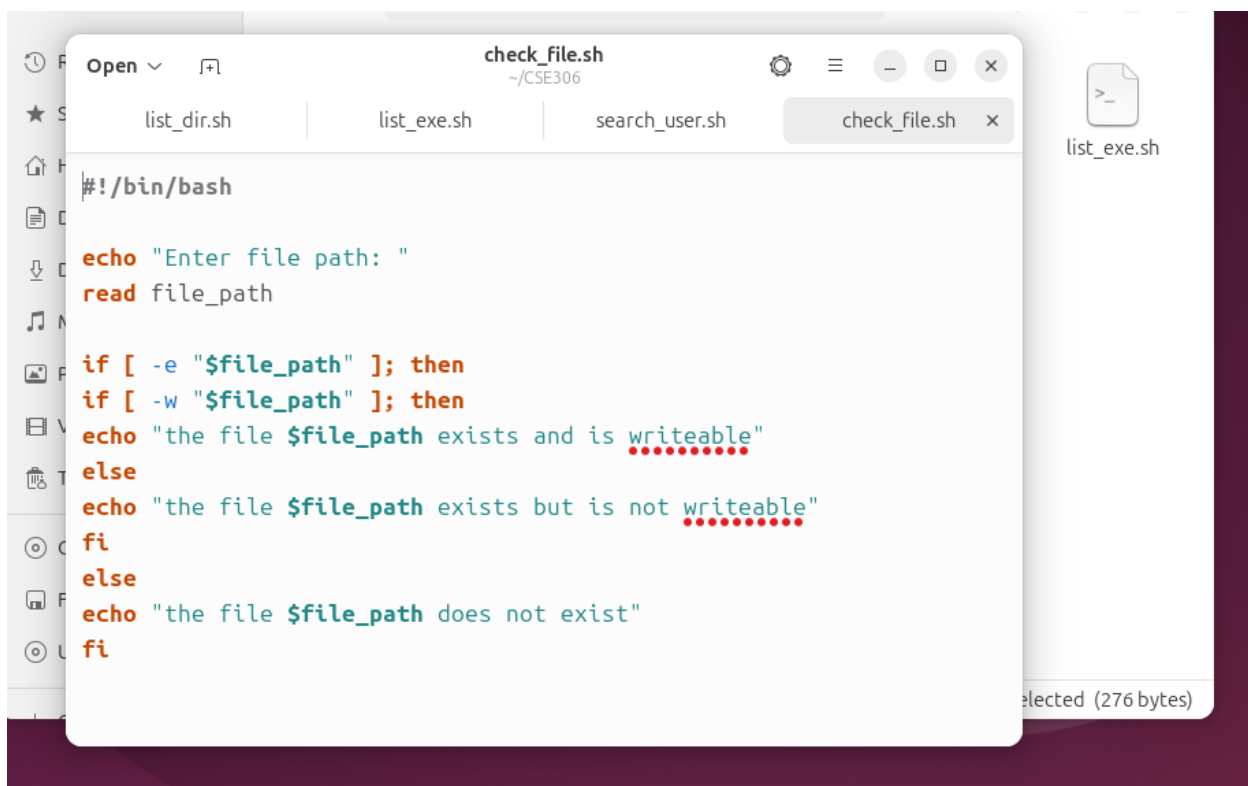
```
#!/bin/bash

echo "Enter username to search: "
read username

if grep -q "^$username:" /etc/passwd; then
echo "User $username exists"
else
echo "$username does not exist"
fi
```

13.

```
/home/thviet2002/CSE306/list_pwd.sh
/home/thviet2002/CSE306/list_dir.sh
thviet2002@thviet2002:~/CSE306$ nano search_user.sh
thviet2002@thviet2002:~/CSE306$ chmod +x search_user.sh
thviet2002@thviet2002:~/CSE306$ ~/CSE306/search_user.sh
Enter username to search:
thviet2002
User thviet2002 exists
thviet2002@thviet2002:~/CSE306$ nano check_file.sh
thviet2002@thviet2002:~/CSE306$ chmod +x check_file.sh
thviet2002@thviet2002:~/CSE306$ ~/CSE306/check_file.sh
Enter file path:
~CSE306/search_user.sh
the file ~CSE306/search_user.sh does not exist
thviet2002@thviet2002:~/CSE306$ ~/CSE306/check_file.sh
Enter file path:
check_file.sh
the file check_file.sh exists and is writeable
thviet2002@thviet2002:~/CSE306$
```

A screenshot of a code editor window titled "check_file.sh" with the path "~/CSE306" shown below the title. The editor has a tab bar at the top with four tabs: "list_dir.sh", "list_exe.sh", "search_user.sh", and "check_file.sh" (which is currently selected). The main text area contains a bash script. The script starts with a shebang line "#!/bin/bash". It then has an "echo" statement to prompt the user for a file path, followed by a "read" statement to store the input in a variable named "file_path". Next, there is an "if" statement that checks if the file exists using the "-e" flag. Inside this "if" block, there is another "if" statement that checks if the file is writable using the "-w" flag. If the file is writable, it prints a message "the file \$file_path exists and is writeable" with red dots. If the file exists but is not writable, it prints a message "the file \$file_path exists but is not writeable" with red dots. If the file does not exist, it prints a message "the file \$file_path does not exist". The script ends with "fi" to close the "if" block. On the right side of the editor, there is a sidebar showing a file icon and the name "list_exe.sh". At the bottom right, there is a status bar that says "Selected (276 bytes)".

```
#!/bin/bash

echo "Enter file path: "
read file_path

if [ -e "$file_path" ]; then
    if [ -w "$file_path" ]; then
        echo "the file $file_path exists and is writeable"
    else
        echo "the file $file_path exists but is not writeable"
    fi
else
    echo "the file $file_path does not exist"
fi
```