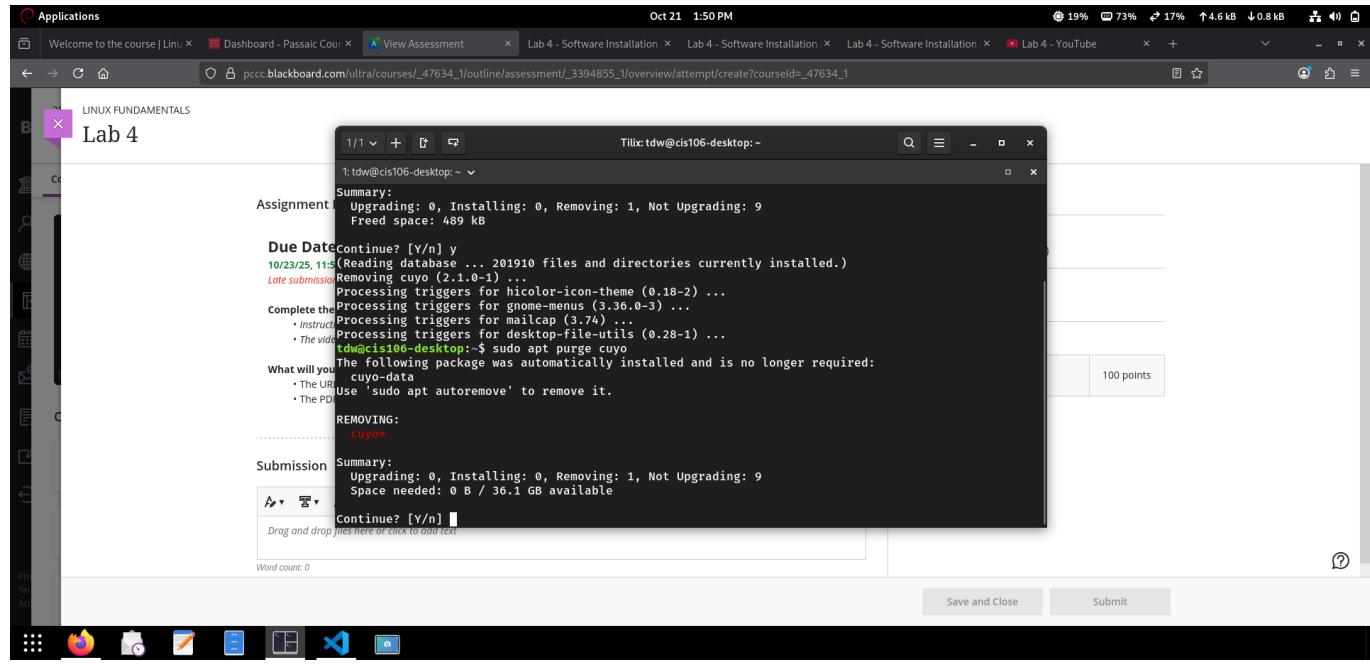


lab4

Question 1



The screenshot shows a Linux desktop environment with a terminal window open in a window manager. The terminal window title is 'Tilix: tdw@cis106-desktop:~'. The terminal content shows the user running the command 'sudo apt purge cuyo' to remove a package. The output indicates that the package was automatically installed and is no longer required. A file submission dialog is overlaid on the terminal window, asking for a due date (10/23/25, 11:59 PM) and a summary of the task. The summary includes the command run and its output. The dialog also shows a note about the package being removed and a question about what will happen to the package's data. The dialog has a 'Save and Close' button and a 'Submit' button.

q12

The screenshot shows a Linux desktop environment with a terminal window open. The terminal window title is "Tilix: tdw@cis106-desktop:~". The terminal content shows the user running several apt commands:

```
1:tdw@cis106-desktop:~ 
tdw@cis106-desktop:~$ sudo apt clean && sudo apt autoclean && sudo apt autoremove && sudo apt autoremove --purge
[sudo] password for tdw:
Sorry, try again.
[sudo] password for tdw:
REMOVING:
  cuyo-data

Summary:
Upgrading: 0, Installing: 0, Removing: 1, Not Upgrading: 9
Free space: 5,759 kB

Continue? [Y/n] 
```

Below the terminal, there is a "Blackboard" assignment submission interface titled "Lab 4". It displays the terminal output and includes a "100 points" box. At the bottom right of the screen, there are "Save and Close" and "Submit" buttons.

The screenshot shows a Linux desktop environment with a terminal window open. The terminal window title is "Tilix: tdw@cis106-desktop:~". The terminal content shows the user running several apt commands:

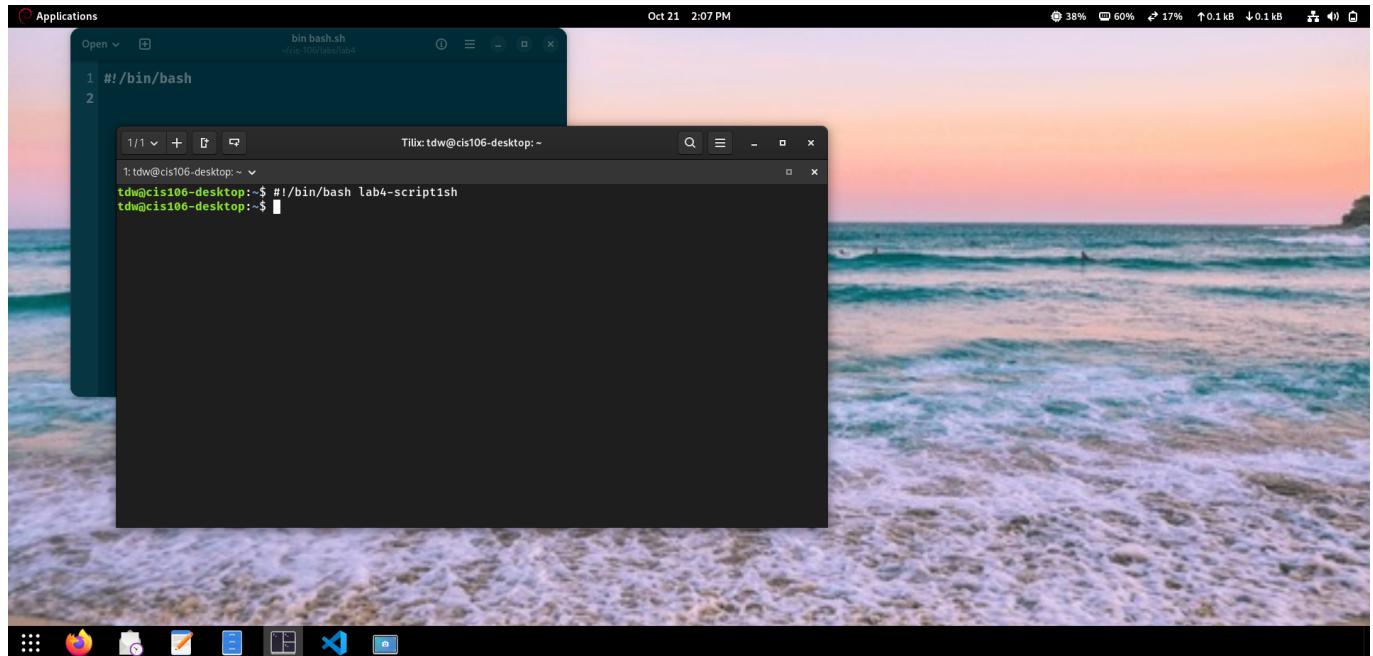
```
1:tdw@cis106-desktop:~ 
tdw@cis106-desktop:~$ sudo apt clean && sudo apt autoclean && sudo apt autoremove && sudo apt autoremove --purge
[sudo] password for tdw:
Sorry, try again.
[sudo] password for tdw:
REMOVING:
  cuyo-data

Summary:
Upgrading: 0, Installing: 0, Removing: 1, Not Upgrading: 9
Free space: 5,759 kB

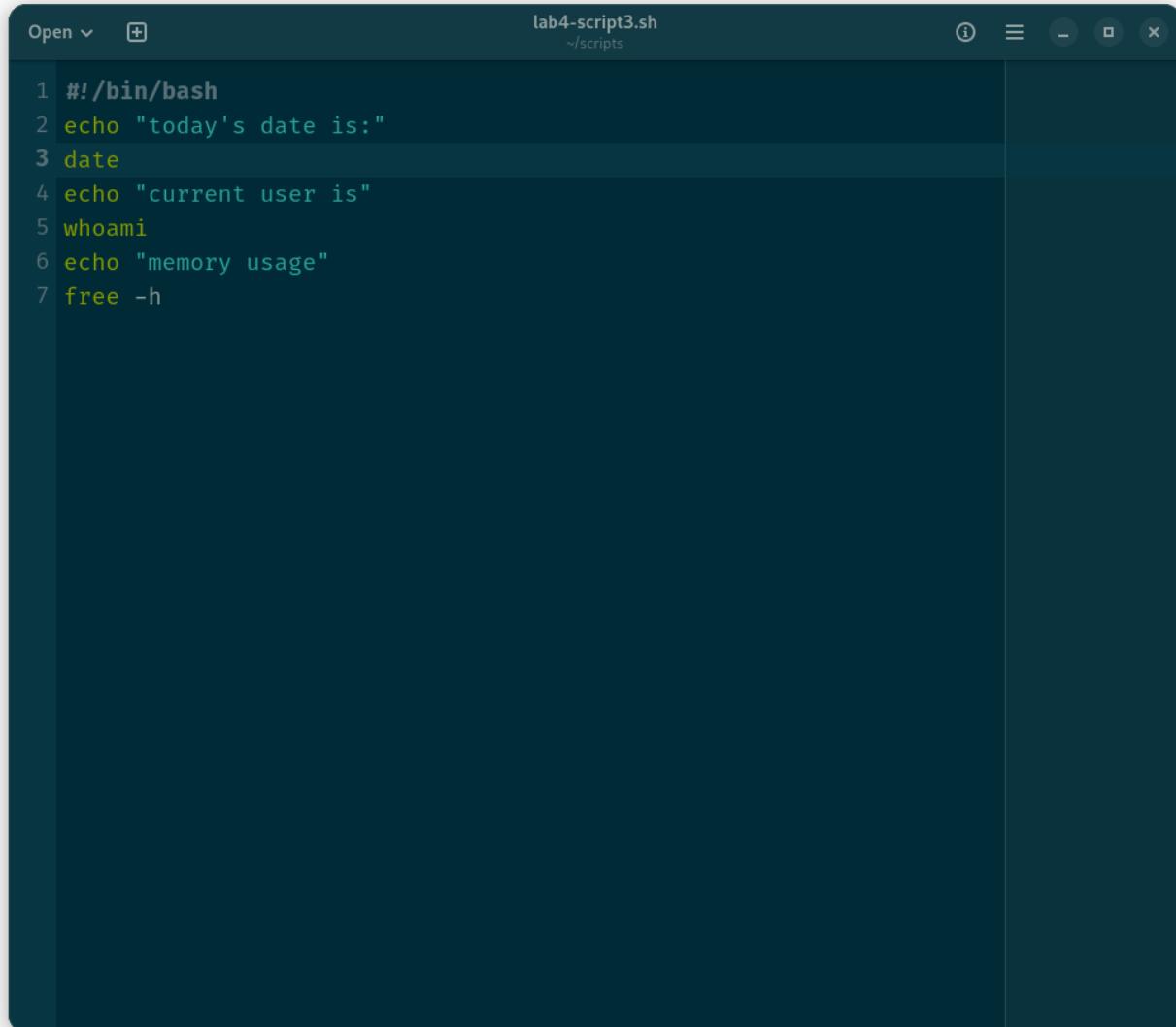
Continue? [Y/n] 
```

Below the terminal, there is a "Blackboard" assignment submission interface titled "Lab 4". It displays the terminal output and includes a "100 points" box. At the bottom right of the screen, there are "Save and Close" and "Submit" buttons.

Question 2

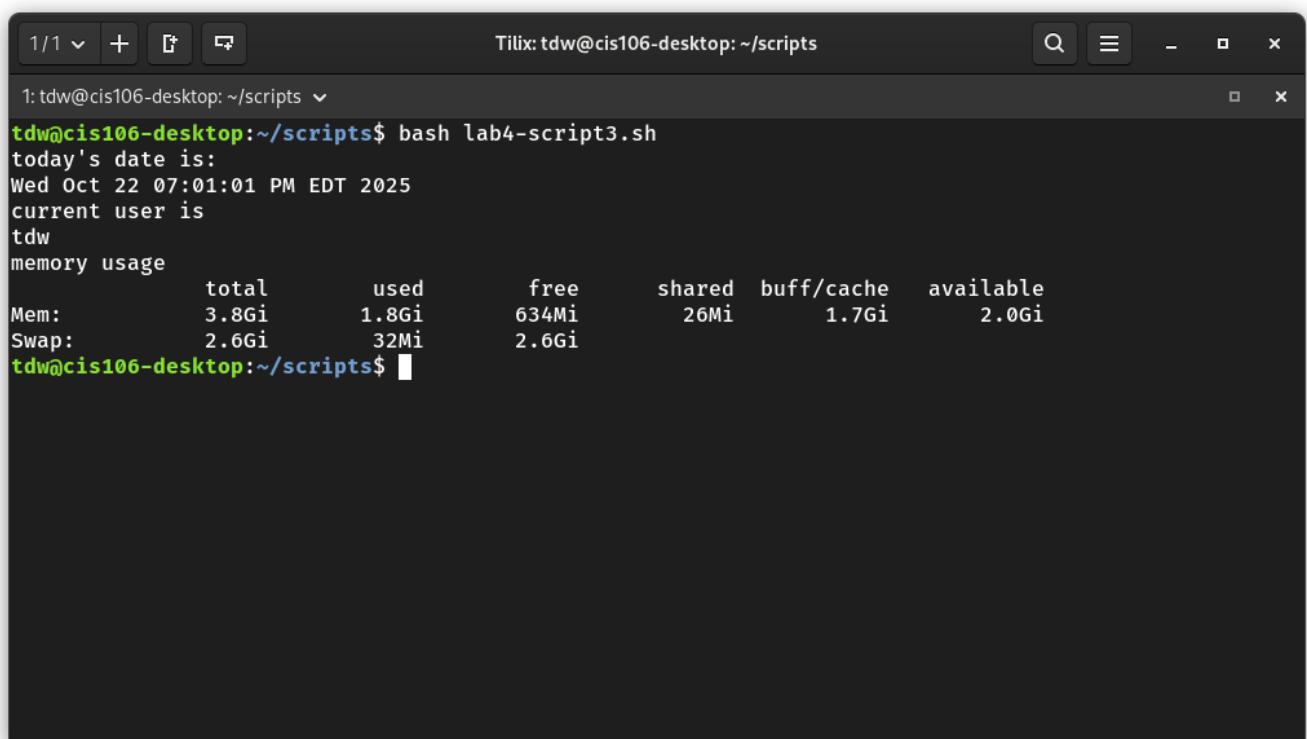


```
1: tdw@cis106-desktop:~/scripts ~
tdw@cis106-desktop:~/scripts$ bash lab4-script2.sh
Hello World
      Hello World
Hello
World
tdw@cis106-desktop:~/scripts$
```



The screenshot shows a code editor window titled "lab4-script3.sh" located in the "~/scripts" directory. The script contains the following code:

```
1 #!/bin/bash
2 echo "today's date is:"
3 date
4 echo "current user is"
5 whoami
6 echo "memory usage"
7 free -h
```



The screenshot shows a terminal window titled "Tilix: tdw@cis106-desktop: ~/scripts". The session ID is 1/1. The terminal displays the output of running the script:

```
1: tdw@cis106-desktop: ~/scripts ~
tdw@cis106-desktop:~/scripts$ bash lab4-script3.sh
today's date is:
Wed Oct 22 07:01:01 PM EDT 2025
current user is
tdw
memory usage
      total        used         free      shared  buff/cache   available
Mem:       3.8Gi      1.8Gi     634Mi      26Mi      1.7Gi      2.0Gi
Swap:      2.6Gi      32Mi      2.6Gi
```

