**Practical 2 – Managing Files in Linux System**

**Section A**

At the current location (e.g /home/student), perform the following operations:

| 1. | Show the current path. **– New Yee Hao** |
| --- | --- |
|  | **pwd** |

| 2. | Create a directory “p2”. **– New Yee Hao** |
| --- | --- |
|  | **mkdir p2** |

| 3. | Give two commands which can list all the contents at the current directory. **– Ng Eason** |
| --- | --- |
|  | **$ ls** |
|  | **$ dir** |

| 4. | Create a directory “super” inside the directory “p2”. **– Ng Eason** |
| --- | --- |
|  | **$ mkdir super** |
|  |  |

| 5. | Inside this “super” directory, create four files “apple.doc”, “april.doc”, “box.txt” and “ultra.txt” using *touch* command. **– Ong Shen Hoi** |
| --- | --- |
|  | $ touch apple.doc april.doc box.txt ultra.txt |
|  |  |

| 6. | **- Ong Shen Hoi** |
| --- | --- |
| (a) | Show the file(s) starting with “ap”. |
|  | **ls ap\*** |
| (b) | Show the file(s) that the length of the filename contains 5 characters. |
|  | **ls ?????.\*** |
| (c) | Show the file(s) ending with “txt” extension. |
|  | **ls \*.txt** |
| (d) | Show the file(s) that the third character of the filename is “p”. |
|  | **ls ??p\*** |

| 7. | Go to root directory. **– Sean Loi** |
| --- | --- |
|  | **cd /** |

| 8. | Search a directory named “super” from the root directory. **– Sean Loi** |
| --- | --- |
|  | **find / -type d -name ‘super’** |

| 9. | Search a file named “ultra.txt” from the root directory. **– Tan Li Yuet** |
| --- | --- |
|  | **find / -type f -name “ultra.txt”** |

| 10. | Go back to directory “super”. Rename the file “ultra.txt” to “mega.txt” **- Tan Li Yuet** |
| --- | --- |
|  | cd home/tanly/p2/super or cd ~/p2/super |
|  | mv ultra.txt mega.txt |

| 11. | Copy “super” directory to *home* directory and rename it to “super2” in one command line. **– Mavis Wong** |
| --- | --- |
|  | **sudo cp -r /home/mavis/p2/super /home/super2** |

| 12. | Confirm whether “super2” directory is created and copied. **– Mavis Wong** |
| --- | --- |
|  |  |
|  | ls /home/super2 |

| 13. | Remove “super” and all its subdirectories and files. **– Yew Ze Xuan** |
| --- | --- |
|  | **rm -r super** |

| 14. | Create a text file “sampleA.txt” using *vi* command. **– Yew Ze Xuan** |
| --- | --- |
|  | **vi sampleA.txt** |
|  |  |

| 15. Type the following contents into “sampleA.txt” and save the file. **– Yoon Yu Hong**  *“The shell is a program that takes keyboard commands and passes them to the operating system to carry out. Almost all Linux distributions supply a shell program from the GNU Project called bash.”* |
| --- |
| **Press ESC+A to be able to type the following content into samplesA.txt.**  **Next,Press ESC+SHIFT+; and type W and press Enter for saving the content to the file.** |

| 16. | Create another text file “sampleB.txt” using *cat* command. **– Yoon Yu Hong** |
| --- | --- |
|  | **$ cat > sampleB.txt** |

| 17. Type the following contents into “sampleB.txt” and save the file. **– Aaron Wong**  *“When using a graphical user interface, we need another program called a terminal emulator to interact with the shell.”* |
| --- |
| **$ cat > sampleB.txt**  **When using a graphical user interface, we need another program called a terminal emulator to interact with the shell.** |

| 18. Open “sampleB.txt” again using *vi* command and add the following sentences. **– Aaron Wong**  *“It’s likely called simply “terminal”.”* |
| --- |
| **$ vi sampleB.txt** |
| **After enter vi sampleB.txt, it will direct to vi command. Then, enter i to type in the text above.To save the file, press esc and enter :wq .This will update and save sampleB.txt** |

| 19. Show the word count of “sampleB.txt” **– Cheng Cai Jie** |
| --- |
| **$ wc -w sampleB.txt** |

| 20. Combine the two files “sampleA.txt” and “sampleB.txt” to a file named “sampleC.txt”. **– Cheng Cai Jie** |
| --- |
| **$ cat sampleA.txt sampleB.txt > sampleC.txt** |

| 21. Show the content of “sampleC.txt” on the terminal. **– Har Chun Wai** |
| --- |
| **$ cat sampleC.txt** |

| 22. Archive “sampleA.txt” and “sampleB.txt” to “sampleC.tar” **- Har Chun Wai** |
| --- |
| **$ tar -cf sampleC.tar sampleA.txt sampleB.txt** |

| 23. Overwrite “sampleB.txt” by “sampleA.txt” and show the content of both files on the terminal. **– Ho Jing Xian** |
| --- |
| **cat sampleA.txt > sampleB.txt** |
| **cat sampleA.txt sampleB.txt** |

| 24. Delete the file “sampleB.txt”. **– Ho Jing Xian** |
| --- |
| **rm sampleB.txt** |

| 25. Go back to *home* directory and create a new directory named “backup”. **– Lau Jun Dian** |
| --- |
| **cd /home**  **sudo mkdir backup** |
|  |

| 26. Backup “sampleA.txt” and “sampleC.txt” to “backup” directory. **– Lau Jun Dian** |
| --- |
| **sudo cp ~/p2/\*.txt backup** |

**Section B** True/False.

Explain the answer if it is false.

**1-5 Low Jun Yan 6-10 Nee Mei Yi**

|  |  | **True/False** |
| --- | --- | --- |
| 1. | The structure of the file system in Linux can be depicted in a form of tree. It begins at the root (/), and branches out like the branches of a tree. | **True** |
| 2. | A relative path starting from the current directory while an absolute path starting from the root of the entire file system tree. | **True** |
| 3. | When the terminal is opened the starting directory is the root (/) directory. | **False.Terminal uses the current user directory(/home) as the default directory when a user logged in** |
| 4. | /etc directory in Linux is similar to Control Panel in WINDOWS. | **True** |
| 5. | Windows separates directories using forward slash (“/”) while LINUX uses back slash (“\”). | **False. Windows separates directories using back slash(“\”) while LINUX uses forward slash (“/”).** |
| 6. | LINUX is non-case sensitive while WINDOWS is. | **False. LINUX is case sensitive while Windows is not.** |
| 7. | Windows uses a volume-based file hierarchy (e.g. C: volume, D: volume) while LINUX uses a unified scheme (e.g. /, /home, /etc). | **True** |
| 8. | .tar is a text file extension in LINUX system. | **False**  **.tar is for archive file, .txt is for text file** |
| 9. | LINUX uses color to differentiate the files and folder/directory. Blue is for executable file, Green is for directory. | **False. Blue is for directory, green is for executable file** |
| 10. | Lossless compression preserves all the data after compression while lossy compression drops some information after compression. | **True** |

**Section C**

1. Write commands for the following instructions by using the vi editor: **- Tan Kang Hong**
   1. Create a document called first.file, and enter 4 lines of words “today” and save it.
   2. Copy the first 4 lines using only one command
   3. Save the file, and exit vi
   4. Create a second document called second.file, and enter 4 lines of words “yesterday” and save it.
   5. Create a third document called third.file, by merging the text from the first two files.
   6. Save the third.file and exit from the editor

| 1. vi first.file   press ai”  today (esc a) (press enter)  today (press enter)  today (press enter)  today (press enter) (esc)(shift : w)then the system will save     1. Back to command mode (shift : w)   press “yy” (copy)  press “p” (paste)  (c) In command mode, type wq    (d) vi second.file  press “a”  yesterday (esc a) (press enter)  yesterday (press enter)  yesterday (press enter)  yesterday (press enter) (esc)(shift : wq)then the system will save  (e) vi third.file  In command mode(esc)(shift :), type r first.file    Back to command mode(esc)(shift :), type r second.file    (f) then command mode again(esc)(shift :), type wq |
| --- |

1. Using vi command, create a new file called “sonnet” that contains the first four lines of the Shakespeare’s 80th Sonnet. **– Alif**

| O, how I faint when I of you do write, |
| --- |
| Knowing a better spirit doth use your name, |
| And in the praise therefore spends all his might, |
| To make me tongue-tied, speaking of your frame |

* 1. Replace all occurrences of the word “the” with “a”
  2. Select 5 words, and convert them to all uppercase
  3. Delete a line, and then undo the deletion
  4. Enter the command that causes line numbers to appear
  5. Save the file and exit vi editor

| 1. **esc shift : 1,$ s/the/a/g**     **b) v5w (in input mode), (shift + u)**  **c)shift**  **dd to delete a line**  **esc shift : u is to undo the deleted line**  **d)esc shift : set number**    **e) esc shift : wq** |
| --- |