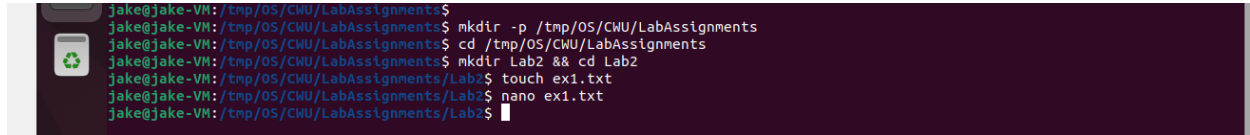


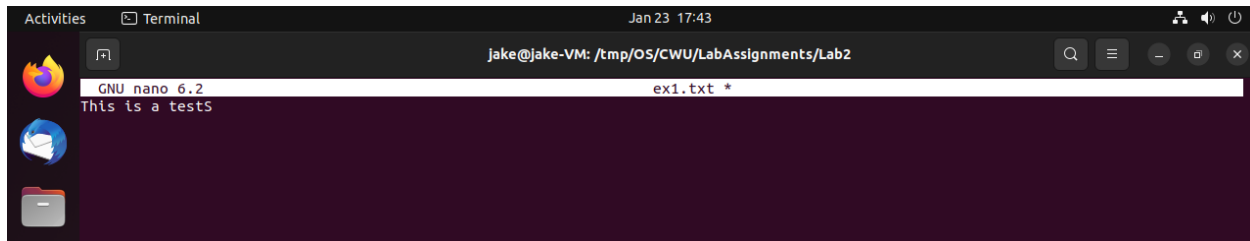
Robinson – CS 470 Lab 2

Creating directories and touching ex1.txt:

A terminal window with a dark purple background. The prompt is 'jake@jake-VM: /tmp/OS/CWU/LabAssignments\$'. The user enters 'mkdir -p /tmp/OS/CWU/LabAssignments', then 'cd /tmp/OS/CWU/LabAssignments', then 'mkdir Lab2 && cd Lab2', then 'touch ex1.txt', then 'nano ex1.txt', and finally 'nano ex1.txt' again. The cursor is at the end of the last command.

```
jake@jake-VM: /tmp/OS/CWU/LabAssignments$ mkdir -p /tmp/OS/CWU/LabAssignments
jake@jake-VM: /tmp/OS/CWU/LabAssignments$ cd /tmp/OS/CWU/LabAssignments
jake@jake-VM: /tmp/OS/CWU/LabAssignments$ mkdir Lab2 && cd Lab2
jake@jake-VM: /tmp/OS/CWU/LabAssignments/Lab2$ touch ex1.txt
jake@jake-VM: /tmp/OS/CWU/LabAssignments/Lab2$ nano ex1.txt
jake@jake-VM: /tmp/OS/CWU/LabAssignments/Lab2$ nano ex1.txt
```

Writing in ex1.txt using nano:

A terminal window titled 'Terminal' with a date and time of 'Jan 23 17:43'. The prompt is 'jake@jake-VM: /tmp/OS/CWU/LabAssignments/Lab2'. The user has opened 'ex1.txt' in nano. The text 'This is a test' is visible in the editor. The window has a sidebar with icons for Activities, Terminal, and Files.

```
Activities Terminal Jan 23 17:43
jake@jake-VM: /tmp/OS/CWU/LabAssignments/Lab2
GNU nano 6.2 ex1.txt *
This is a test
```

Using echo and ls to check if the file was created and cat to view the contents of the file:

A terminal window with a dark purple background. The prompt is 'jake@jake-VM: /tmp/OS/CWU/LabAssignments/Lab2\$'. The user enters 'ls', then 'cat ex1.txt', then 'echo ex1.txt', and finally 'echo ex1.txt' again. The output of 'ls' is 'ex1.txt'. The output of 'cat ex1.txt' is 'This is a test'. The output of 'echo ex1.txt' is 'ex1.txt'.

```
jake@jake-VM: /tmp/OS/CWU/LabAssignments/Lab2$ ls
ex1.txt
jake@jake-VM: /tmp/OS/CWU/LabAssignments/Lab2$ cat ex1.txt
This is a test
jake@jake-VM: /tmp/OS/CWU/LabAssignments/Lab2$ echo ex1.txt
ex1.txt
jake@jake-VM: /tmp/OS/CWU/LabAssignments/Lab2$ echo ex1.txt
ex1.txt
```

Steps 7 – 11:

```

jake@jake-VM:/tmp/OS/CWU/LabAssignments/Lab2$ mkdir directory1 directory2
jake@jake-VM:/tmp/OS/CWU/LabAssignments/Lab2$ touch ex2.txt ex3.txt
jake@jake-VM:/tmp/OS/CWU/LabAssignments/Lab2$ tree
.
├── directory1
├── directory2
├── ex1.txt
├── ex2.txt
└── ex3.txt

2 directories, 3 files
jake@jake-VM:/tmp/OS/CWU/LabAssignments/Lab2$ nano ex2.txt
jake@jake-VM:/tmp/OS/CWU/LabAssignments/Lab2$ nano
directory1/ directory2/ ex1.txt    ex2.txt    ex3.txt
jake@jake-VM:/tmp/OS/CWU/LabAssignments/Lab2$ nano ex3.txt
jake@jake-VM:/tmp/OS/CWU/LabAssignments/Lab2$ pwd
/tmp/OS/CWU/LabAssignments/Lab2
jake@jake-VM:/tmp/OS/CWU/LabAssignments/Lab2$ ls -l
total 20
drwxrwxr-x 2 jake jake 4096 Jan 23 17:52 directory1
drwxrwxr-x 2 jake jake 4096 Jan 23 17:52 directory2
-rw-rw-r-- 1 jake jake  15 Jan 23 17:44 ex1.txt
-rw-rw-r-- 1 jake jake  16 Jan 23 17:53 ex2.txt
-rw-rw-r-- 1 jake jake  16 Jan 23 17:53 ex3.txt
jake@jake-VM:/tmp/OS/CWU/LabAssignments/Lab2$ sudo chown alexander ex1.txt
[sudo] password for jake:
chown: invalid user: 'alexander'
jake@jake-VM:/tmp/OS/CWU/LabAssignments/Lab2$ sudo chown root ex1.txt
jake@jake-VM:/tmp/OS/CWU/LabAssignments/Lab2$ sudo chown root ex2.txt
jake@jake-VM:/tmp/OS/CWU/LabAssignments/Lab2$ ls -l
total 20
drwxrwxr-x 2 jake jake 4096 Jan 23 17:52 directory1
drwxrwxr-x 2 jake jake 4096 Jan 23 17:52 directory2
-rw-rw-r-- 1 root jake  15 Jan 23 17:44 ex1.txt
-rw-rw-r-- 1 root jake  16 Jan 23 17:53 ex2.txt
-rw-rw-r-- 1 jake jake  16 Jan 23 17:53 ex3.txt
jake@jake-VM:/tmp/OS/CWU/LabAssignments/Lab2$

```

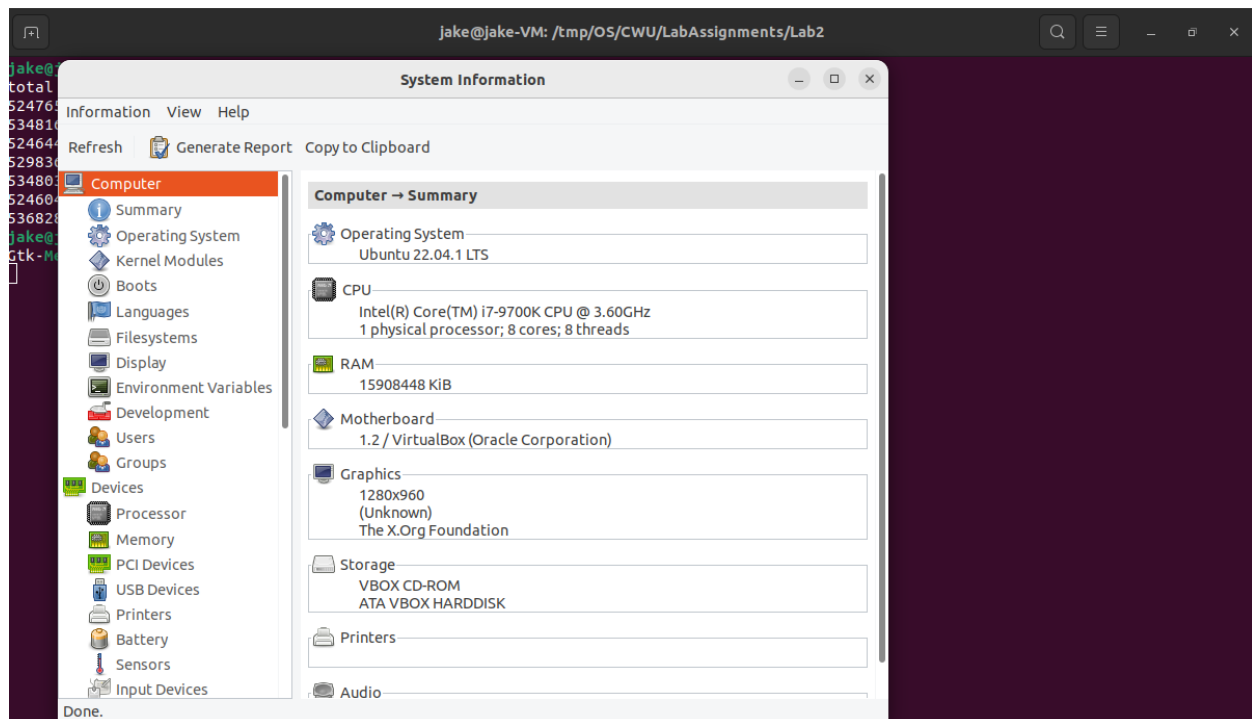
Step 12: list all directories and subdirectories

```

jake@jake-VM:/tmp/OS/CWU/LabAssignments/Lab2$ ls -la
total 28
524765 drwxrwxr-x 4 jake jake 4096 Jan 23 17:53 .
534816 drwxrwxr-x 3 jake jake 4096 Jan 23 17:42 ..
524644 drwxrwxr-x 2 jake jake 4096 Jan 23 17:57 directory1
529836 drwxrwxr-x 2 jake jake 4096 Jan 23 17:52 directory2
534803 -rw-rw-r-- 1 root jake  15 Jan 23 17:44 ex1.txt
524604 -rw-rw-r-- 1 root jake  16 Jan 23 17:53 ex2.txt
536828 -rw-rw-r-- 1 jake jake  16 Jan 23 17:53 ex3.txt
jake@jake-VM:/tmp/OS/CWU/LabAssignments/Lab2$

```

Hardinfo:



Step 14 Changing permissions:

```
jake@jake-VM:/tmp/OS/CWU/LabAssignments/Lab2$ ls -la
total 28
drwxrwxr-x 4 jake jake 4096 Jan 23 17:53 .
drwxrwxr-x 3 jake jake 4096 Jan 23 17:42 ..
drwxrwxr-x 2 jake jake 4096 Jan 23 17:57 directory1
drwxrwxr-x 2 jake jake 4096 Jan 23 17:52 directory2
-rw-rw-r-- 1 jake jake 15 Jan 23 17:44 ex1.txt
-rw-rw-r-- 1 root jake 16 Jan 23 17:53 ex2.txt
-rw-rw-r-- 1 jake jake 16 Jan 23 17:53 ex3.txt
jake@jake-VM:/tmp/OS/CWU/LabAssignments/Lab2$ sudo chmod 064 ex1.txt
jake@jake-VM:/tmp/OS/CWU/LabAssignments/Lab2$
jake@jake-VM:/tmp/OS/CWU/LabAssignments/Lab2$ ls -la
total 28
524765 drwxrwxr-x 4 jake jake 4096 Jan 23 17:53 .
534816 drwxrwxr-x 3 jake jake 4096 Jan 23 17:42 ..
524644 drwxrwxr-x 2 jake jake 4096 Jan 23 17:57 directory1
529836 drwxrwxr-x 2 jake jake 4096 Jan 23 17:52 directory2
534803 ---rw-r-- 1 jake jake 15 Jan 23 17:44 ex1.txt
524604 -rw-rw-r-- 1 root jake 16 Jan 23 17:53 ex2.txt
536828 -rw-rw-r-- 1 jake jake 16 Jan 23 17:53 ex3.txt
jake@jake-VM:/tmp/OS/CWU/LabAssignments/Lab2$
```