

UBUNTU COMMANDS

OPERATING SYSTEMS LABS



ASSIGNMENT # 01

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I/O redirection Command:

In this lesson, we will explore a powerful feature used by command line programs called ***input/output redirection***. As we have seen, many commands such as `ls` print their output on the display. This does not have to be the case, however. By using some special notations we can *redirect* the output of many commands to files, devices, and even to the input of other commands.

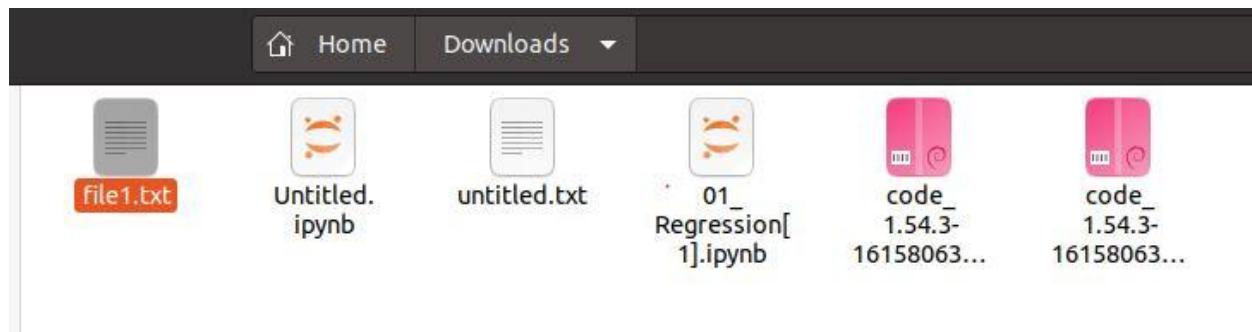
Standard Output:

Most command line programs that display their results do so by sending their results to a facility called ***standard output***. By default, standard output directs its contents to the display. To redirect standard output to a file, the ">" character is used like this:

```
Ls>file1.txt
```

```
noman@noman-siddique:~$ cd Downloads
noman@noman-siddique:~/Downloads$ ls > file1.txt
noman@noman-siddique:~/Downloads$
```

In this example, the `ls` command is executed and the results are written in a file named `file_list1.txt`. Since the output of `ls` was redirected to the file, no results appear on the display.





Each time the command above is repeated, `file_list.txt` is overwritten from the beginning with the output of the command `ls`. To have the new results *appended* to the file instead, we use `>>` like this:

`ls >> file1.txt`



When the results are appended, the new results are added to the end of the file, thus making the file longer each time the command is repeated.

The new result is added to the end of the file.



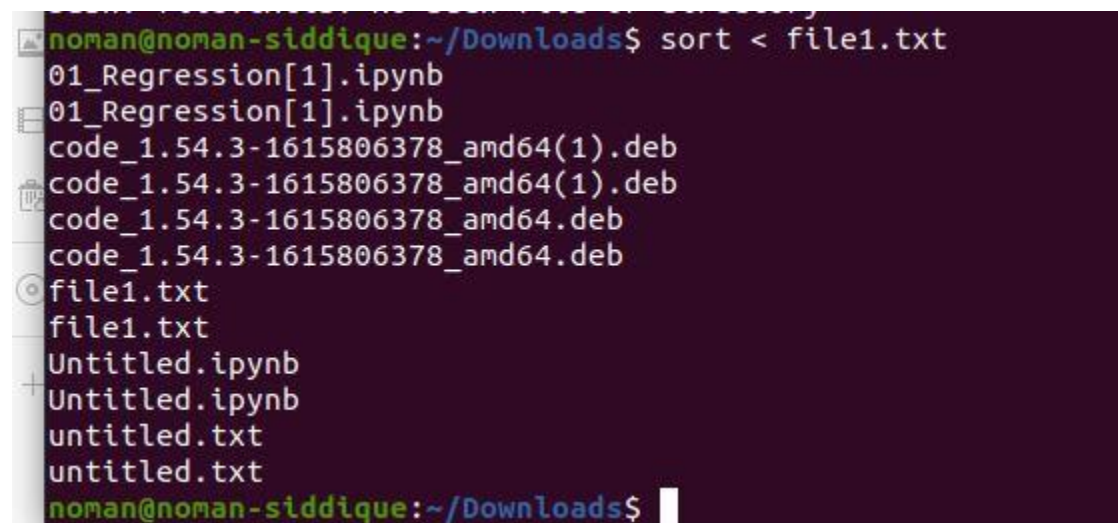
Standard Input:

Many commands can accept input from a facility called *standard input*. By default, standard input gets its contents from the

keyboard, but like standard output, it can be redirected. To redirect standard input from a file instead of the keyboard, the "<" character is used like this:

It show the text of file in command.

```
sort < file1.txt
```

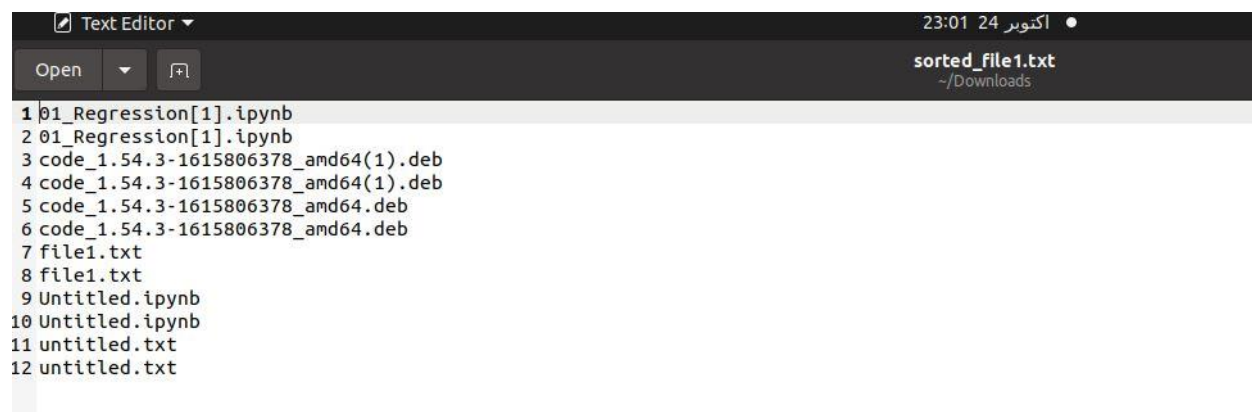


```
noman@noman-siddique:~/Downloads$ sort < file1.txt
01_Regression[1].ipynb
01_Regression[1].ipynb
code_1.54.3-1615806378_amd64(1).deb
code_1.54.3-1615806378_amd64(1).deb
code_1.54.3-1615806378_amd64.deb
code_1.54.3-1615806378_amd64.deb
file1.txt
file1.txt
Untitled.ipynb
Untitled.ipynb
untitled.txt
untitled.txt
noman@noman-siddique:~/Downloads$
```

In the example above, we used the [sort](#) command to process the contents of `file_list1.txt`. The results are output on the display since the standard output was not redirected. We could redirect standard output to another file like this:

It created the file name with sorted file and sorted the text of file1 and store it in file1.txt.

```
sort < file1.txt > sorted_file1.txt
```



```
Text Editor 23:01 24 أكتوبر
Open sorted_file1.txt ~/Downloads
1 01_Regression[1].ipynb
2 01_Regression[1].ipynb
3 code_1.54.3-1615806378_amd64(1).deb
4 code_1.54.3-1615806378_amd64(1).deb
5 code_1.54.3-1615806378_amd64.deb
6 code_1.54.3-1615806378_amd64.deb
7 file1.txt
8 file1.txt
9 Untitled.ipynb
10 Untitled.ipynb
11 untitled.txt
12 untitled.txt
```

