



SUMMER SCHOOL 2021

Wildcards

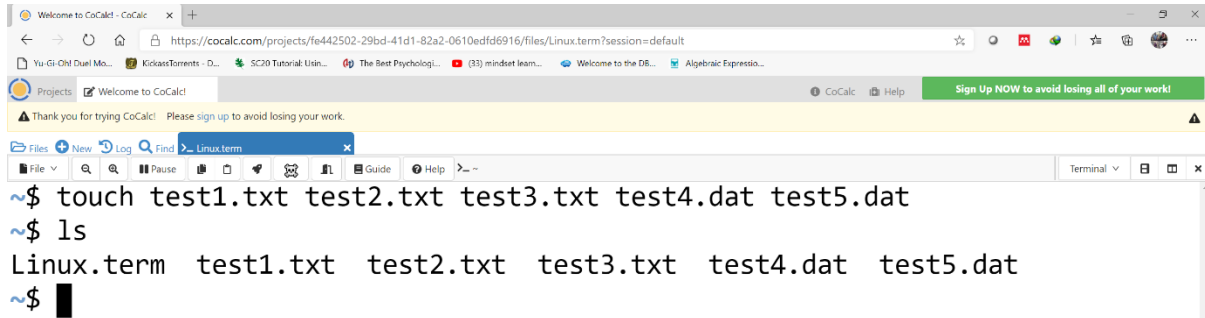
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Summary of commands used in this lecture

Command	Meaning
touch	Used to create an empty file or update the timestamp of a file
ls	List items in current directory
rm	Used to remove a file/directory

- As in the previous lectures all commands provided in **BOLD** and center aligned from here onwards are commands that can be typed/executed directly in a terminal.
- Let us create several files called test1.txt, test2.txt, test3.txt, test4.dat and test5.dat:

touch test1.txt test2.txt test3.txt test4.dat test5.dat
ls



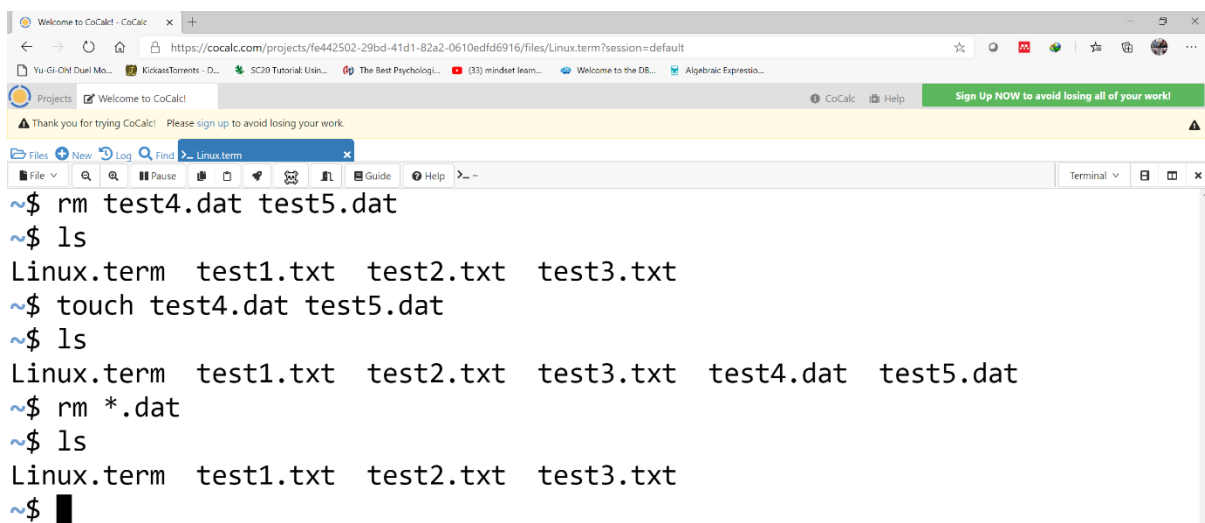
```

Welcome to CoCalc - CoCalc
https://cocalc.com/projects/fe442502-29bd-41d1-82a2-0610edfd6916/files/Linux.term?session=default
Projects Welcome to CoCalc
Thank you for trying CoCalc! Please sign up to avoid losing your work.
Files New Log Find Linux.term
File v Search Pause Copy Paste Undo Redo Guide Help ~
~$ touch test1.txt test2.txt test3.txt test4.dat test5.dat
~$ ls
Linux.term test1.txt test2.txt test3.txt test4.dat test5.dat
~$ █

```

- You will notice that it is possible to create multiple files using a single **touch** command as opposed to having a separate command for the creation of each file.
- Say we wish to remove the files that end with **.dat**:

rm test4.dat test5.dat
ls
touch test4.dat test5.dat
ls
rm *.dat
ls



```

Welcome to CoCalc - CoCalc
https://cocalc.com/projects/fe442502-29bd-41d1-82a2-0610edfd6916/files/Linux.term?session=default
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~$ rm test4.dat test5.dat
~$ ls
Linux.term test1.txt test2.txt test3.txt
~$ touch test4.dat test5.dat
~$ ls
Linux.term test1.txt test2.txt test3.txt test4.dat test5.dat
~$ rm *.dat
~$ ls
Linux.term test1.txt test2.txt test3.txt
~$ █

```

- One way to remove the files would be to type out the names of each file after the **rm** command.

Since I removed the files **test4.dat** and **test5.dat** I need to recreate them using **touch**.

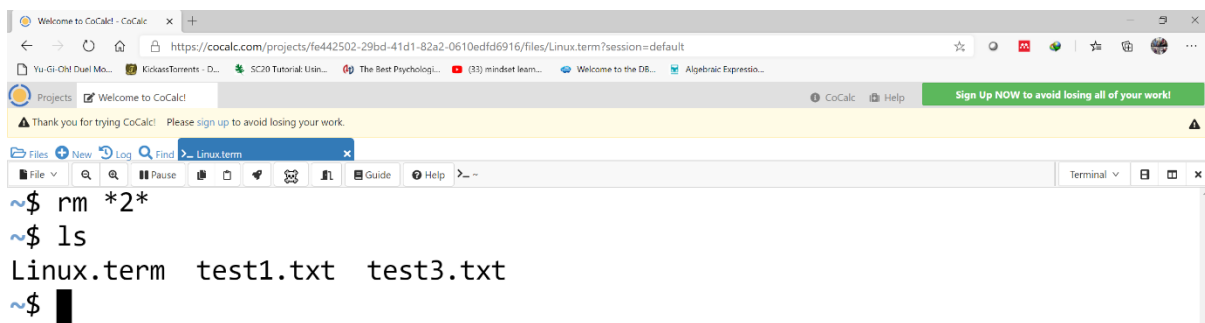
What if we have 100's or even 1000's of **.dat** files it will take a considerable amount of time to type each name out, so to save time we can make use of the ***** character. This is used as a placeholder and represents any text/character that might appear before the **.dat** extension.

- Wildcards can be used anyway and do not only need to be used for filenames that appear before an extension.

If we wish to remove **test2.txt** by making use of wildcards:

rm *2*

ls



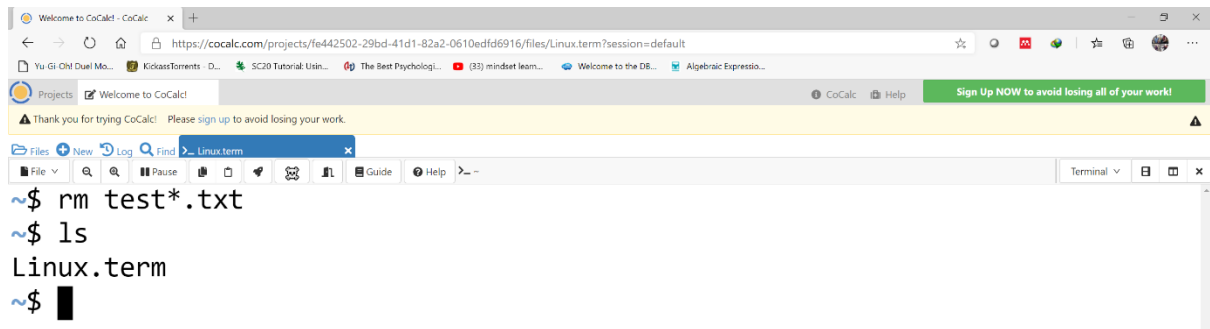
The screenshot shows a web browser window with a CoCalc terminal. The terminal output is as follows:

```
~$ rm *2*
~$ ls
Linux.term  test1.txt  test3.txt
~$
```

- The above remove command will remove all files that contain the number 2 irrespective of what comes before or after the number. In this case it is only **test2.txt** that meets the criterion and hence this gets removed.
- Finally, we want to remove all files that start with **test** and end with **.txt**, but we are not concerned with the number that appears between them:

rm test*.txt

ls



The screenshot shows a web browser window with the CoCalc interface. The address bar shows a URL from cocalc.com. Below the browser window, there is a CoCalc toolbar with options like 'Files', 'New', 'Log', 'Find', 'Linux.term', 'File', 'Pause', 'Copy', 'Paste', 'Guide', and 'Help'. A yellow banner at the top of the workspace area says 'Thank you for trying CoCalc! Please sign up to avoid losing your work.' Below this, a terminal window is open with the following text:

```
~$ rm test*.txt
~$ ls
Linux.term
~$
```

- The command above removes the remaining test files (**test1.txt** and **test3.txt**).
- This brings us to the end of **Wildcards**.
- At this point you should give **Exercise 3** a try.