Linux1-Project1

1. Go to your home folder using a full absolute path reference.

```
sahil@ubuntu: ~
sahil@ubuntu:~$ pwd
/home/sahil
sahil@ubuntu:~$ cd /home/sahil
sahil@ubuntu:~$ 
```
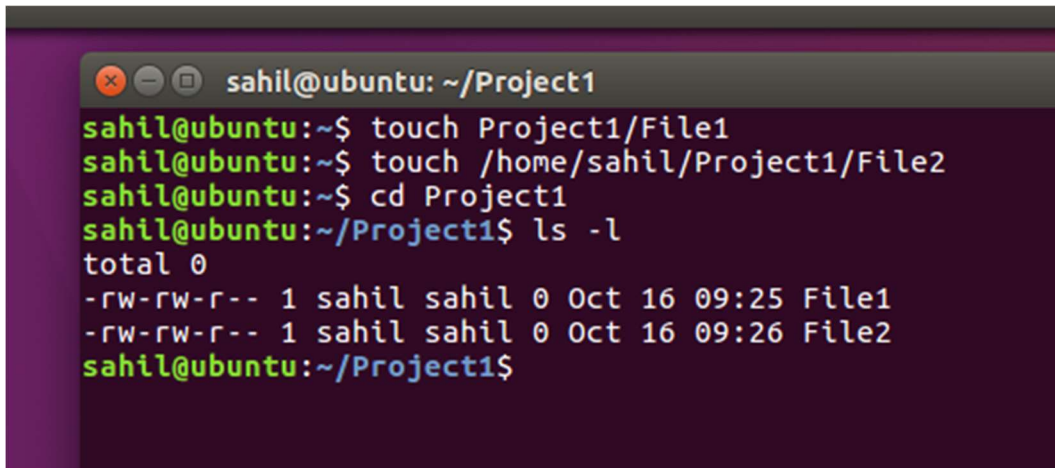
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2. Using a relative path reference, create a new folder in your home folder called Project1.

```
mkfs.bfs            mkfs.msdos          mk_modmap
sahil@ubuntu:~$ mkdir Project1
sahil@ubuntu:~$ ls -ls
total 60
 4 drwxr-xr-x 2 sahil sahil 4096 Sep 17 12:57 Desktop
 4 drwxr-xr-x 2 sahil sahil 4096 Oct  3 17:28 Documents
 4 drwxr-xr-x 2 sahil sahil 4096 Sep 17 12:57 Downloads
12 -rw-r--r-- 1 sahil sahil 8980 Sep 17 12:54 examples.desktop
 4 drwxrwxr-x 2 sahil sahil 4096 Sep 24 12:36 file.txt
 4 drwxr-xr-x 2 sahil sahil 4096 Sep 17 12:57 Music
 4 drwxr-xr-x 2 sahil sahil 4096 Sep 17 12:57 Pictures
 4 drwxrwxr-x 2 sahil sahil 4096 Oct 16 09:19 Project1
 4 drwxr-xr-x 2 sahil sahil 4096 Sep 17 12:57 Public
 4 drwxr-xr-x 2 sahil sahil 4096 Sep 17 12:57 Templates
 4 drwxr-xr-x 2 sahil sahil 4096 Sep 17 12:57 Videos
 4 drwxrwxr-x 2 sahil sahil 4096 Oct  1 12:32 week5
 4 drwxrwxr-x 2 sahil sahil 4096 Sep 24 12:23 week6
sahil@ubuntu:~$
```
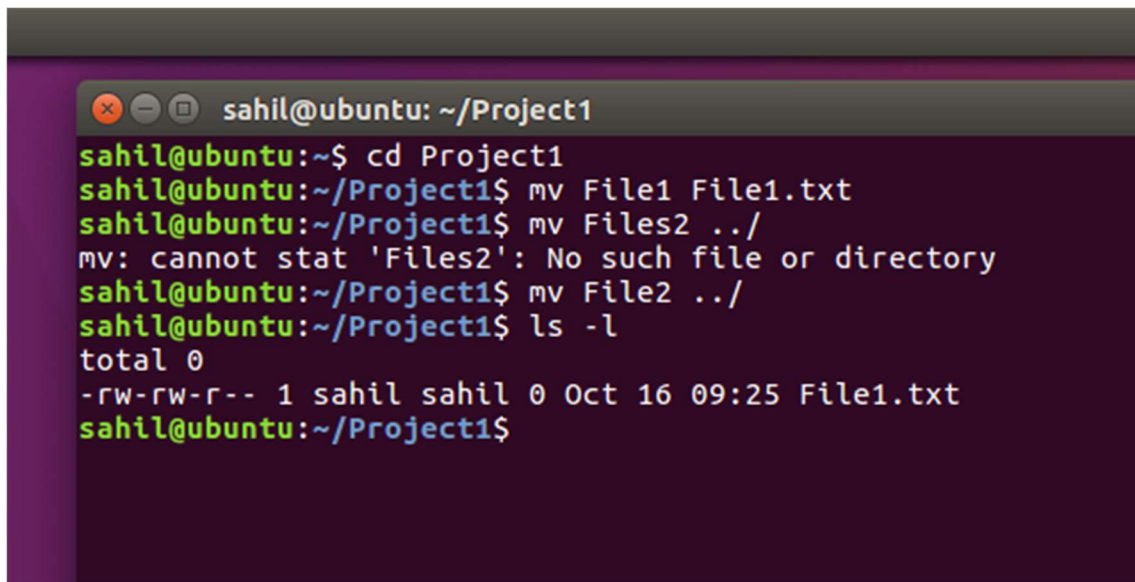
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3. Using a relative path reference, create a new file in the Project1 folder (without going into folder) called File1. Create another file called File2 in Project1 using an absolute path reference.

```
sahil@ubuntu: ~/Project1
sahil@ubuntu:~$ touch Project1/File1
sahil@ubuntu:~$ touch /home/sahil/Project1/File2
sahil@ubuntu:~$ cd Project1
sahil@ubuntu:~/Project1$ ls -l
total 0
-rw-rw-r-- 1 sahil sahil 0 Oct 16 09:25 File1
-rw-rw-r-- 1 sahil sahil 0 Oct 16 09:26 File2
sahil@ubuntu:~/Project1$
```
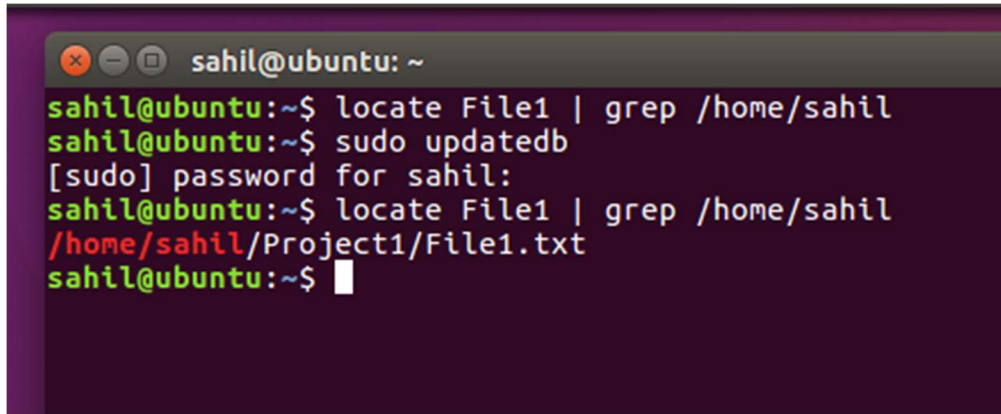
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4. Go inside Project1 folder. Rename File1 to File1.txt. Move File2 to a folder one above in the tree structure using a relative path name (ie. move it to your home folder, but do not use ~ or cd).

```
sahil@ubuntu: ~/Project1
sahil@ubuntu:~$ cd Project1
sahil@ubuntu:~/Project1$ mv File1 File1.txt
sahil@ubuntu:~/Project1$ mv Files2 ../
mv: cannot stat 'Files2': No such file or directory
sahil@ubuntu:~/Project1$ mv File2 ../
sahil@ubuntu:~/Project1$ ls -l
total 0
-rw-rw-r-- 1 sahil sahil 0 Oct 16 09:25 File1.txt
sahil@ubuntu:~/Project1$
```

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5. Use the locate function to find File1.txt while narrowing down the results to your home folder. If it didn't work, explain why and show how could you should correct the problem.
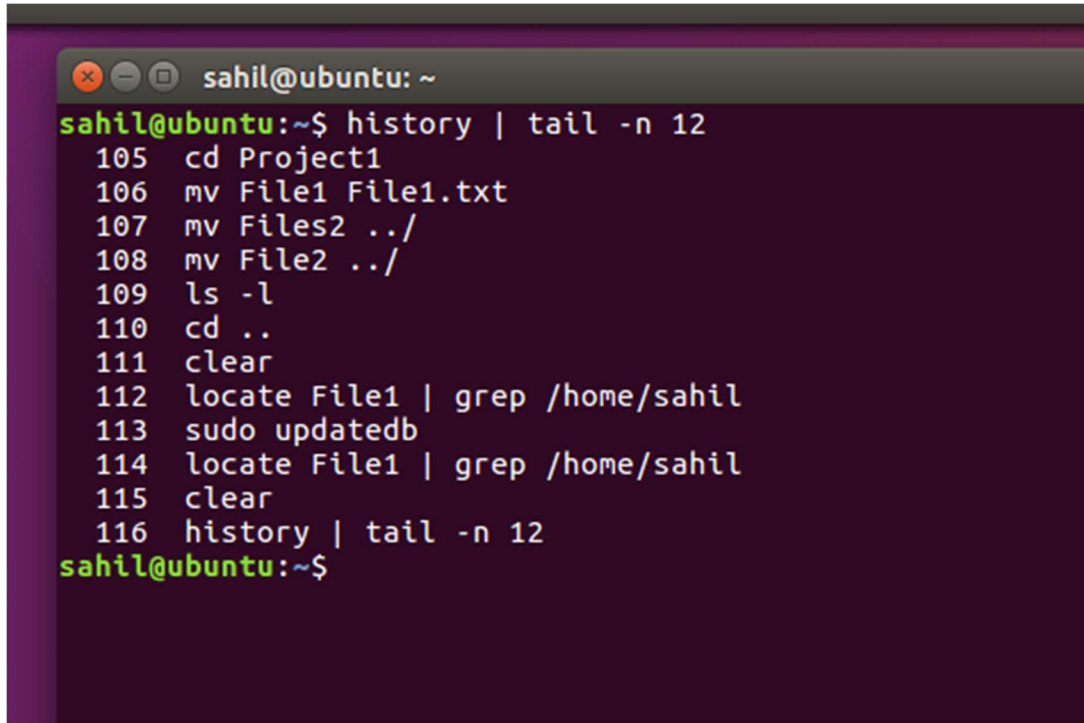

It didn't work the first time because the file database, needed to be updated. After running the updatebd command, it worked as intended.
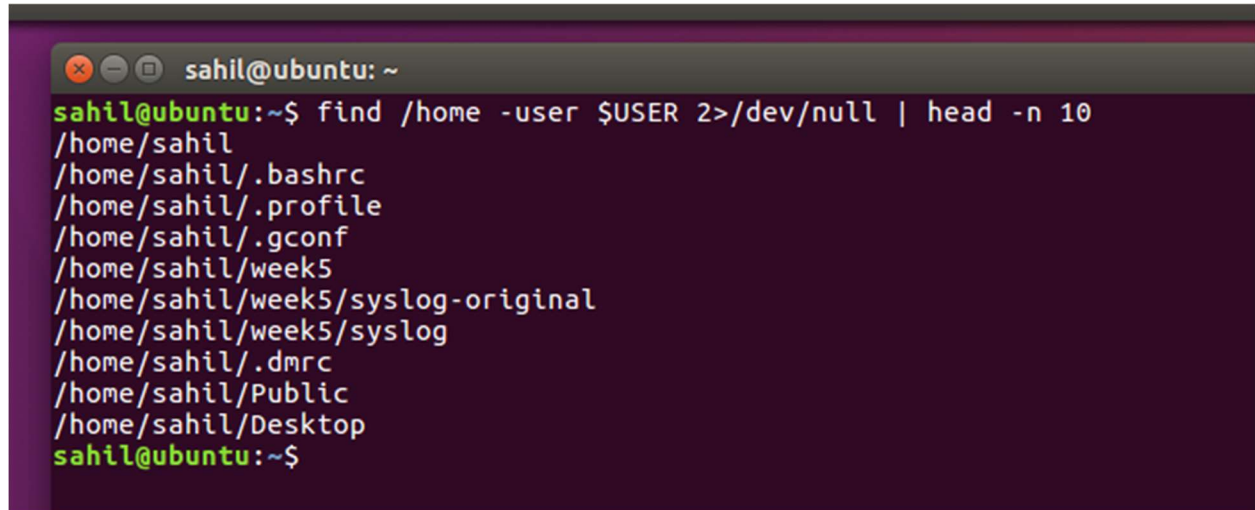
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6. Display last 12 entries in your history file using a combination of two commands.

```
sahil@ubuntu:~$ history | tail -n 12
  105  cd Project1
  106  mv File1 File1.txt
  107  mv Files2 ../
  108  mv File2 ../
  109  ls -l
  110  cd ..
  111  clear
  112  locate File1 | grep /home/sahil
  113  sudo updatedb
  114  locate File1 | grep /home/sahil
  115  clear
  116  history | tail -n 12
sahil@ubuntu:~$
```

7. Use the find command to find all files owned by you in the /home folder. Make sure all errors are suppressed (not displayed). Filter the output to show just first 10 results.
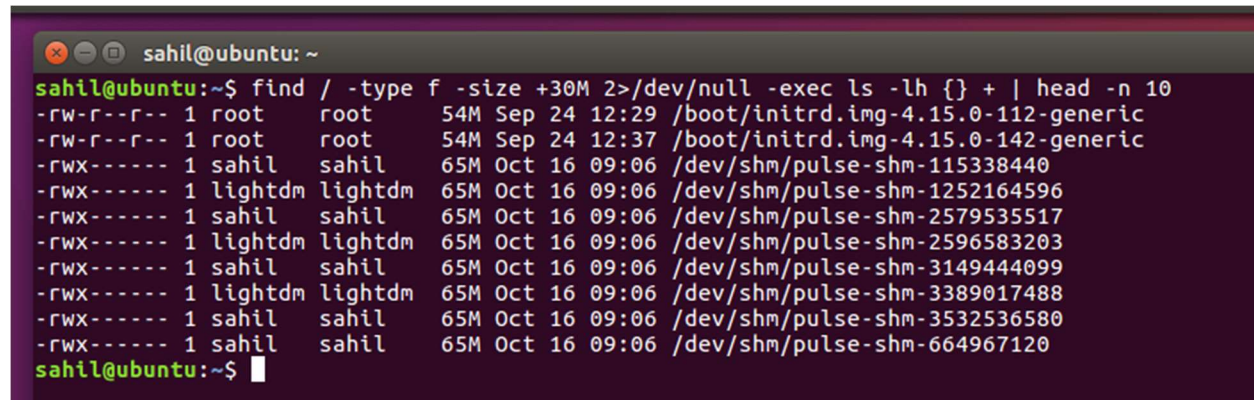
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8. Use the find command to find all files in the file system which are greater than 30 megabytes. Make sure all errors are suppressed (not displayed) and that your results are passed through the ls command shown with file details and "human readable" file sizes (use the -exec option in find command). Filter the output to show just first 10 results.
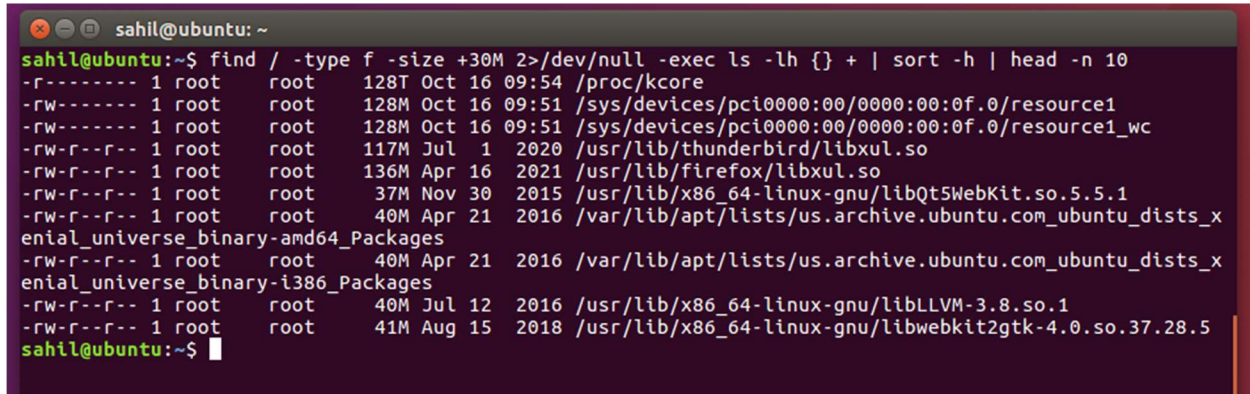*NOTE: if you get less than 10 results, use a smaller size than 30mb in this and subsequent steps

```
sahil@ubuntu: ~
sahil@ubuntu:~$ find / -type f -size +30M 2>/dev/null -exec ls -lh {} + | head -n 10
-rw-r--r-- 1 root     root      54M Sep 24 12:29 /boot/initrd.img-4.15.0-112-generic
-rw-r--r-- 1 root     root      54M Sep 24 12:37 /boot/initrd.img-4.15.0-142-generic
-rwx------ 1 sahil    sahil     65M Oct 16 09:06 /dev/shm/pulse-shm-115338440
-rwx------ 1 lightdm lightdm   65M Oct 16 09:06 /dev/shm/pulse-shm-1252164596
-rwx------ 1 sahil    sahil     65M Oct 16 09:06 /dev/shm/pulse-shm-2579535517
-rwx------ 1 lightdm lightdm   65M Oct 16 09:06 /dev/shm/pulse-shm-2596583203
-rwx------ 1 sahil    sahil     65M Oct 16 09:06 /dev/shm/pulse-shm-3149444099
-rwx------ 1 lightdm lightdm   65M Oct 16 09:06 /dev/shm/pulse-shm-3389017488
-rwx------ 1 sahil    sahil     65M Oct 16 09:06 /dev/shm/pulse-shm-3532536580
-rwx------ 1 sahil    sahil     65M Oct 16 09:06 /dev/shm/pulse-shm-664967120
sahil@ubuntu:~$
```
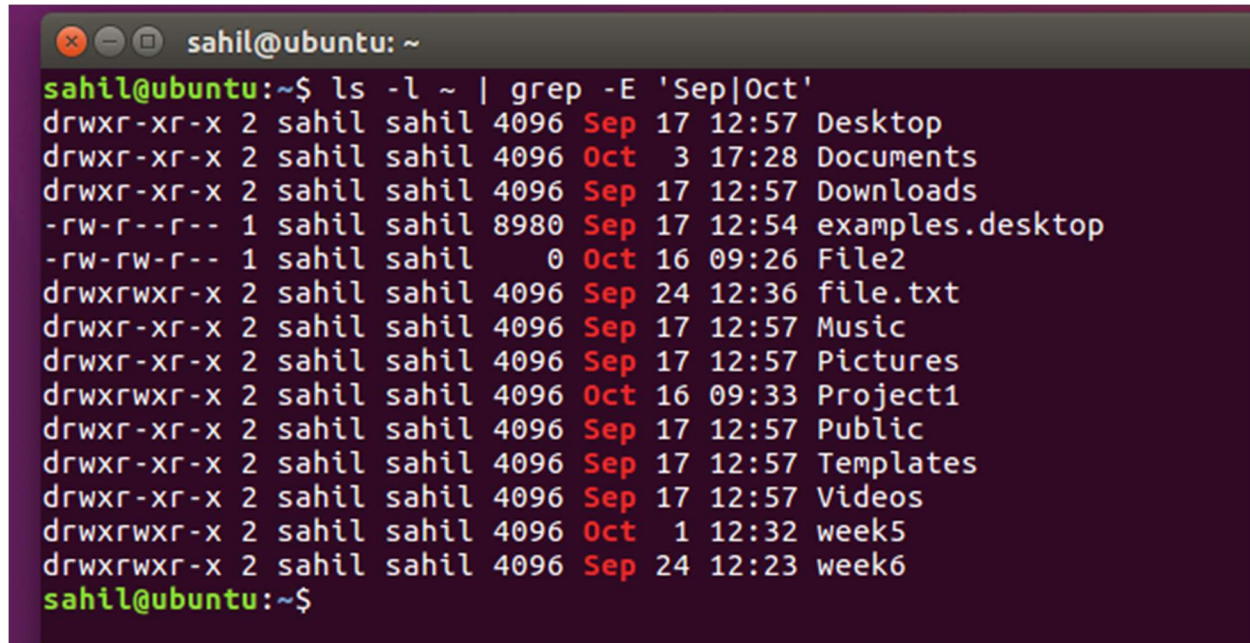
9. Expand the previous command to sort the output by file size, larger numbers first. Use the sort command with "natural" or "human numeric sort" option. Use the man page for sort and document all your findings in a screenshot. Filter the output to show just first 10 results.

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10. Show a listing of your home folder contents with details and filter it to display only files and folders last modified during two chosen months (pick some months that make sense for your output).

```
sahil@ubuntu: ~
sahil@ubuntu:~$ ls -l ~ | grep -E 'Sep|Oct'
drwxr-xr-x 2 sahil sahil 4096 Sep 17 12:57 Desktop
drwxr-xr-x 2 sahil sahil 4096 Oct  3 17:28 Documents
drwxr-xr-x 2 sahil sahil 4096 Sep 17 12:57 Downloads
-rw-r--r-- 1 sahil sahil 8980 Sep 17 12:54 examples.desktop
-rw-rw-r-- 1 sahil sahil    0 Oct 16 09:26 File2
drwxrwxr-x 2 sahil sahil 4096 Sep 24 12:36 file.txt
drwxr-xr-x 2 sahil sahil 4096 Sep 17 12:57 Music
drwxr-xr-x 2 sahil sahil 4096 Sep 17 12:57 Pictures
drwxrwxr-x 2 sahil sahil 4096 Oct 16 09:33 Project1
drwxr-xr-x 2 sahil sahil 4096 Sep 17 12:57 Public
drwxr-xr-x 2 sahil sahil 4096 Sep 17 12:57 Templates
drwxr-xr-x 2 sahil sahil 4096 Sep 17 12:57 Videos
drwxrwxr-x 2 sahil sahil 4096 Oct  1 12:32 week5
drwxrwxr-x 2 sahil sahil 4096 Sep 24 12:23 week6
sahil@ubuntu:~$
```