

Exercise: Basic Linux & Bash commands

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On Hyper-V/Oracle/VMware (whatever your preferred Linux workaround is currently) download Ubuntu image and install it as a virtual machine or WSL2. After this is done:

1. Create a file friends.txt with a list of names of three of your friends on separate lines.
2. Display the contents of friends.txt on the console.

```
filipdaskalovski@DESKTOP-180FJ2H:~/scalefocus$ cd
filipdaskalovski@DESKTOP-180FJ2H:~$ cat > friends.txt
Tijana
Jana
Anastasija
filipdaskalovski@DESKTOP-180FJ2H:~$ more friends.txt
Tijana
Jana
Anastasija
filipdaskalovski@DESKTOP-180FJ2H:~$
```

3. Rename file friends.txt to bestfriends.txt

```
filipdaskalovski@DESKTOP-180FJ2H:~$ ls
friends.txt  scalefocus
filipdaskalovski@DESKTOP-180FJ2H:~$ mv friends.txt bestfriends.txt
filipdaskalovski@DESKTOP-180FJ2H:~$ ls
bestfriends.txt  scalefocus
filipdaskalovski@DESKTOP-180FJ2H:~$
```

4. Make a copy of bestfriends.txt under the name sysadmins.txt

```
filipdaskalovski@DESKTOP-180FJ2H:~$ cp bestfriends.txt sysadmins.txt
filipdaskalovski@DESKTOP-180FJ2H:~$ ls
bestfriends.txt  scalefocus  sysadmins.txt
filipdaskalovski@DESKTOP-180FJ2H:~$
```

5. List all files whose name begins with letter 'b' and ends with extension txt.

```
filipdaskalovski@DESKTOP-180FJ2H:~$ ls b*.txt
bestfriends.txt
filipdaskalovski@DESKTOP-180FJ2H:~$
```

6. Write a command that will tell you how many bytes are taken up by file sysadmins.txt

```
filipdaskalovski@DESKTOP-180FJ2H:~$ wc -c sysadmins.txt
22 sysadmins.txt
filipdaskalovski@DESKTOP-180FJ2H:~$
```

7. Create file cars.txt with a list of 5 brands of cars on separate lines.

```
filipdaskalovski@DESKTOP-180FJ2H: ~
filipdaskalovski@DESKTOP-180FJ2H:~$ cat > cars.txt
Toyota
Mazda
Honda
Lexus
Fiat
filipdaskalovski@DESKTOP-180FJ2H:~$ more cars.txt
Toyota
Mazda
Honda
Lexus
Fiat
filipdaskalovski@DESKTOP-180FJ2H:~$
```

8. Check how many bytes are taken up by the file.

```
filipdaskalovski@DESKTOP-180FJ2H:~$ wc -c sysadmins.txt
22 sysadmins.txt
filipdaskalovski@DESKTOP-180FJ2H:~$
```

9. Copy the file cars.txt into directory /tmp

```
filipdaskalovski@DESKTOP-180FJ2H:~$ ls
bestfriends.txt cars.txt scalefocus sysadmins.txt
filipdaskalovski@DESKTOP-180FJ2H:~$ mkdir tmp
filipdaskalovski@DESKTOP-180FJ2H:~$ ls
bestfriends.txt cars.txt scalefocus sysadmins.txt tmp
filipdaskalovski@DESKTOP-180FJ2H:~$ cp cars.txt tmp
filipdaskalovski@DESKTOP-180FJ2H:~$ ls
bestfriends.txt cars.txt scalefocus sysadmins.txt tmp
filipdaskalovski@DESKTOP-180FJ2H:~$ cd tmp
filipdaskalovski@DESKTOP-180FJ2H:~/tmp$ ls
cars.txt
filipdaskalovski@DESKTOP-180FJ2H:~/tmp$
```

10. List all files with extension *.txt in directory /tmp and verify that the file was copied properly.

```
filipdaskalovski@DESKTOP-180FJ2H:~/tmp$ ls
cars.txt
filipdaskalovski@DESKTOP-180FJ2H:~/tmp$ ls *.txt
cars.txt
filipdaskalovski@DESKTOP-180FJ2H:~/tmp$
```

11. Without leaving your home directory rename file cars.txt located in /tmp to vehicles.txt in /tmp

```
filipdaskalovski@DESKTOP-180FJ2H: ~/tmp
filipdaskalovski@DESKTOP-180FJ2H:~$ ls
bestfriends.txt cars.txt scalefocus sysadmins.txt tmp
filipdaskalovski@DESKTOP-180FJ2H:~$ cd tmp
filipdaskalovski@DESKTOP-180FJ2H:~/tmp$ ls
cars.txt
filipdaskalovski@DESKTOP-180FJ2H:~/tmp$ cd -
/home/filipdaskalovski
filipdaskalovski@DESKTOP-180FJ2H:~$ ls
bestfriends.txt cars.txt scalefocus sysadmins.txt tmp
filipdaskalovski@DESKTOP-180FJ2H:~$ mv ~/tmp/cars.txt ~/tmp/vehicles.txt
filipdaskalovski@DESKTOP-180FJ2H:~$ cd tmp
filipdaskalovski@DESKTOP-180FJ2H:~/tmp$ ls
vehicles.txt
filipdaskalovski@DESKTOP-180FJ2H:~/tmp$
```

12. Display the contents of /etc/passwd file on the screen interactively (so you can search, scroll up and down)

```
filipdaskalovski@DESKTOP-180FJ2H:~/tmp$ more /etc/passwd
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/usr/sbin/nologin
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin
mail:x:8:8:mail:/var/mail:/usr/sbin/nologin
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin
uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin
proxy:x:13:13:proxy:/bin:/usr/sbin/nologin
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
backup:x:34:34:backup:/var/backups:/usr/sbin/nologin
list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin
irc:x:39:39:ircd:/run/ircd:/usr/sbin/nologin
gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/usr/sbin/nologin
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
systemd-network:x:100:102:systemd Network Management,,,:/run/systemd:/usr/sbin/nologin
systemd-resolve:x:101:103:systemd Resolver,,,:/run/systemd:/usr/sbin/nologin
messagebus:x:102:105:/:nonexistent:/usr/sbin/nologin
systemd-timesync:x:103:106:systemd Time Synchronization,,,:/run/systemd:/usr/sbin/nologin
syslog:x:104:111:/:home/syslog:/usr/sbin/nologin
_apt:x:105:65534:/:nonexistent:/usr/sbin/nologin
uidd:x:106:112:/:run/uidd:/usr/sbin/nologin
tcpdump:x:107:113:/:nonexistent:/usr/sbin/nologin
filipdaskalovski:x:1000:1000:,,,:/home/filipdaskalovski:/bin/bash
```