

Trello Board

<https://trello.com/invite/b/69679a5fbc62dd1ad6ea687b/ATTI197f261aaabfb0537a4f391882613e709A3DD80/ironhack-bootcamp-grp2>

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 Vijaya Bhaskar Gagla (you) @vijayabhaskargagla • Workspace admin	<input type="button" value="Admin"/>
 Hemal Patel @hemalpatel28 • Workspace admin	<input type="button" value="Member"/>
 SHISHIR PARIYAR @ayudh165 • Workspace admin	<input type="button" value="Member"/>
 Vasco Gama @vascogama1 • Workspace admin	<input type="button" value="Member"/>

Scripting

<https://trello.com/c/8wENpjHs/11-scripting>

The screenshot shows a Trello card titled "Scripting". The card has the following details:

- Description:**
 - As a user, I can write a tiny Bash script and run it. Tasks: create `hello.sh` with `#!/usr/bin/env bash` + `echo "hi"`; `chmod +x hello.sh`; `./hello.sh`. Done when: terminal shows `hi`.
 - As a user, I can write a Python "Hello + args" script. Tasks: `hello.py` prints `Hello, <name>!` from `sys.argv[1]`. Done when: `python3 hello.py Diogo` prints greeting.
 - As a user, I can parse JSON with `jq`. Tasks: `echo '{"a":1,"b":2}' | jq '.b'`. Done when: output is `2`. (Install `jq` if needed.)
- Attachments:** Scripting.pdf

The right side of the card displays the "Comments and activity" feed:

- Vijaya Bhaskar Gagla moved this card from Doing to Done 11 minutes ago
- Vijaya Bhaskar Gagla moved this card from To Do to Doing 11 minutes ago
- Vijaya Bhaskar Gagla deleted the Scripting_19.pdf attachment from this card 11 minutes ago
- Vijaya Bhaskar Gagla attached Scripting.pdf to this card 11 minutes ago
- Vijaya Bhaskar Gagla added this card to To Do 30 minutes ago

19 As a user, I can write a tiny Bash script and run it. Tasks: create `hello.sh` with
`#!/usr/bin/env bash + echo "hi"; chmod +x hello.sh; ./hello.sh`. Done
when: terminal shows `hi`.

```
vijayagagla@DESKTOP-FP40P26:~/sandbox$ chmod +x hello.sh
vijayagagla@DESKTOP-FP40P26:~/sandbox$ ./hello.sh
vijayagagla@DESKTOP-FP40P26:~/sandbox$ hello.sh
hello.sh: command not found
vijayagagla@DESKTOP-FP40P26:~/sandbox$ ./hello.sh
vijayagagla@DESKTOP-FP40P26:~/sandbox$ vim hello.sh
vijayagagla@DESKTOP-FP40P26:~/sandbox$ ./hello.sh
hi
vijayagagla@DESKTOP-FP40P26:~/sandbox$ |
```

vijayagagla@DESKTOP-FP4OF ~

+ | v

- □ ×

```
#!/usr/bin/env bash
echo "hi"
```

"hello.sh" 2L, 30B

2,1

All

20 As a user, I can write a Python “Hello + args” script. Tasks: `hello.py` prints `Hello, <name>!` from `sys.argv[1]`. Done when: `python3 hello.py Diogo` prints greeting.

```
vijayagagla@DESKTOP-FP4OP26:~/sandbox$ python3 --version
Python 3.12.3
vijayagagla@DESKTOP-FP4OP26:~/sandbox$ vim hello.py
vijayagagla@DESKTOP-FP4OP26:~/sandbox$ python3 hello.py
Usage: python3 hello.py <name>
vijayagagla@DESKTOP-FP4OP26:~/sandbox$ python3 hello.py Vijaya
Hello, Vijaya!
vijayagagla@DESKTOP-FP4OP26:~/sandbox$ |
```

The screenshot shows a terminal window with a dark background and light-colored text. The title bar of the window reads "vijayagagla@DESKTOP-FP4OF". The terminal content is as follows:

```
#!/usr/bin/env python3
import sys

if len(sys.argv) < 2:
    print("Usage: python3 hello.py <name>")
else:
    name = sys.argv[1]
    print(f"Hello, {name}!")
```

At the bottom of the terminal, there are numerous small, faint "z" characters, likely artifacts from the screenshot process. At the very bottom, the status bar displays the file name and its size: "hello.py" 8L, 159B. To the right of the file information, there are two small numbers: 8, 28 and All.

Linux Basics

<https://trello.com/c/VFdualJE/26-linux-basics-vijaya>

The screenshot shows a Trello card titled "Linux Basics -Vijaya". The card has the following details:

- Description:**
 - As a user, I can create and list files in a sandbox folder. Tasks: `mkdir ~/sandbox && cd ~/sandbox && touch a b c && ls -lah`. Done when: screenshot shows folder with 3 files.
 - As a user, I can move, copy, and delete files safely. Tasks: `cp a a.copy && mv b b.moved && rm c`. Done when: `ls` shows expected names.
 - As a user, I can view file contents with three tools. Tasks: `echo "hello" > note.txt ; then cat , less , head -n 1`. Done when: you can show each command's output.
 - As a user, I can find files by name and by content. Tasks: `grep -R "hello" . and find . -name "*copy"`. Done when: commands return
- Members:** VG, +, Linux
- Labels:** Linux

The right side of the screenshot shows the "Comments and activity" sidebar for this card:

- Vasco Gama added Vijaya Bhaskar Gagla to this card 14 minutes ago
- Vijaya Bhaskar Gagla moved this card from Doing to Done 37 minutes ago
- Vijaya Bhaskar Gagla marked this card as complete 37 minutes ago
- Vijaya Bhaskar Gagla removed Checklist from this card 38 minutes ago
- Vijaya Bhaskar Gagla attached [Linux Basics.pdf](#) to this card 38 minutes ago
- Vijaya Bhaskar Gagla moved this card from To Do to Doing 1 hour ago

```
vijayagagla@DESKTOP-FP4OP26: ~/sandbox
ijayagagla@DESKTOP-FP4OP26:~/sandbox$ ls -la
total 8
lrwxr-xr-x  2 vijayagagla vijayagagla 4096 Jan 14 16:34 .
lrwxr-x--- 15 vijayagagla vijayagagla 4096 Jan 14 15:19 ..
rw-r--r--  1 vijayagagla vijayagagla    0 Jan 14 14:43 a
rw-r--r--  1 vijayagagla vijayagagla    0 Jan 14 14:43 b
rw-r--r--  1 vijayagagla vijayagagla    0 Jan 14 14:43 c
ijayagagla@DESKTOP-FP4OP26:~/sandbox$ cp a a.copy && mv b b.moved && rm c
ijayagagla@DESKTOP-FP4OP26:~/sandbox$ ls -la
total 8
lrwxr-xr-x  2 vijayagagla vijayagagla 4096 Jan 14 16:36 .
lrwxr-x--- 15 vijayagagla vijayagagla 4096 Jan 14 15:19 ..
rw-r--r--  1 vijayagagla vijayagagla    0 Jan 14 14:43 a
rw-r--r--  1 vijayagagla vijayagagla    0 Jan 14 16:36 a.copy
rw-r--r--  1 vijayagagla vijayagagla    0 Jan 14 14:43 b.moved
ijayagagla@DESKTOP-FP4OP26:~/sandbox$ echo "hello" > note.txt
ijayagagla@DESKTOP-FP4OP26:~/sandbox$ ls -la
total 12
lrwxr-xr-x  2 vijayagagla vijayagagla 4096 Jan 14 16:36 .
lrwxr-x--- 15 vijayagagla vijayagagla 4096 Jan 14 15:19 ..
rw-r--r--  1 vijayagagla vijayagagla    0 Jan 14 14:43 a
rw-r--r--  1 vijayagagla vijayagagla    0 Jan 14 16:36 a.copy
rw-r--r--  1 vijayagagla vijayagagla    0 Jan 14 14:43 b.moved
rw-r--r--  1 vijayagagla vijayagagla    6 Jan 14 16:36 note.txt
..
```

less note.txt

```
vijayagagla@DESKTOP-FP4OP26: ~/sandbox
hello
note.txt (END)
```

```
vijayagagla@DESKTOP-FP4OP26:~/sandbox$ echo "hello" > note.txt
vijayagagla@DESKTOP-FP4OP26:~/sandbox$ ls -la
total 12
drwxr-xr-x  2 vijayagagla vijayagagla 4096 Jan 14 16:36 .
drwxr-x--- 15 vijayagagla vijayagagla 4096 Jan 14 15:19 ..
-rw-r--r--  1 vijayagagla vijayagagla    0 Jan 14 14:43 a
-rw-r--r--  1 vijayagagla vijayagagla    0 Jan 14 16:36 a.copy
-rw-r--r--  1 vijayagagla vijayagagla    0 Jan 14 14:43 b.moved
-rw-r--r--  1 vijayagagla vijayagagla   6 Jan 14 16:36 note.txt
vijayagagla@DESKTOP-FP4OP26:~/sandbox$ cat note.txt
hello
vijayagagla@DESKTOP-FP4OP26:~/sandbox$ less note.txt
vijayagagla@DESKTOP-FP4OP26:~/sandbox$ less
Missing filename ("less --help" for help)
vijayagagla@DESKTOP-FP4OP26:~/sandbox$ less note.txt
vijayagagla@DESKTOP-FP4OP26:~/sandbox$ head -n 1
^X^C
vijayagagla@DESKTOP-FP4OP26:~/sandbox$ head -n 1 note.txt
hello
```

As a user, I can find files by name and by content. Tasks: `grep -R "hello" .` and `find . -name "* .copy"`. Done when: commands return at least one match

```
vijayagagla@DESKTOP-FP4OP26:~/sandbox$ grep -R "hello" .
./note.txt:hello
vijayagagla@DESKTOP-FP4OP26:~/sandbox$ find . -name "* .copy".
vijayagagla@DESKTOP-FP4OP26:~/sandbox$ find . -name "* .copy"
./a.copy
vijayagagla@DESKTOP-FP4OP26:~/sandbox$
```

As a user, I can compress and extract files. Tasks: `tar -czf data.tgz sandbox` and `tar -xzf data.tgz -C /tmp`. Done when: `/tmp/sandbox` exists.

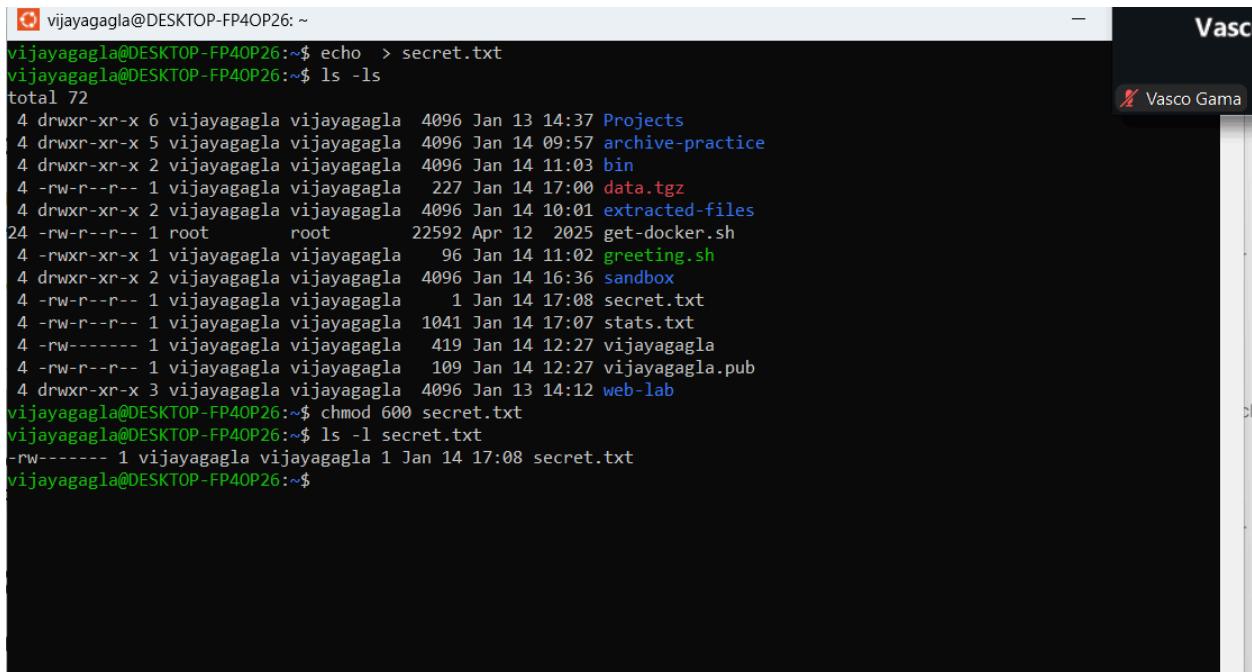
```
vijayagagla@DESKTOP-FP4OP26: ~
home/vijayagagla/sandbox
vijayagagla@DESKTOP-FP4OP26:~/sandbox$ cd ..
vijayagagla@DESKTOP-FP4OP26:~$ tar -czf data.tgz sandbox
vijayagagla@DESKTOP-FP4OP26:~$ ls -la
total 128
rwxr-x-- 1 vijayagagla vijayagagla 4096 Jan 14 17:00 .
rwxr-xr-x 6 root      root      4096 Jan 13 16:53 ..
rwxrwxrwx 1 vijayagagla vijayagagla 22 Dec  1 09:58 .aws -> /mnt/c/Users/User/.aws
rwxrwxrwx 1 vijayagagla vijayagagla 24 Dec  1 09:58 .azure -> /mnt/c/Users/User/.azure
rw----- 1 vijayagagla vijayagagla 7327 Jan 14 15:37 .bash_history
rw-r--r-- 1 vijayagagla vijayagagla 220 Apr 12 2025 .bash_logout
rw-r--r-- 1 vijayagagla vijayagagla 3771 Apr 12 2025 .bashrc
rwx----- 2 vijayagagla vijayagagla 4096 Apr 12 2025 .cache
rwx----- 3 vijayagagla vijayagagla 4096 Jan 14 10:26 .config
rwxr-xr-x 4 vijayagagla vijayagagla 4096 Dec  1 09:58 .docker
rwxr-xr-x 2 vijayagagla vijayagagla 4096 Dec  1 10:00 .kube
rwxr-xr-x 2 vijayagagla vijayagagla 4096 Apr 12 2025 .landscape
rw----- 1 vijayagagla vijayagagla 20 Jan 14 16:54 .lessht
rwxr-xr-x 3 vijayagagla vijayagagla 4096 Jan 13 14:57 .local
rw-r--r-- 1 vijayagagla vijayagagla 0 Jan 14 09:53 .motd_shown
rw-r--r-- 1 vijayagagla vijayagagla 807 Apr 12 2025 .profile
rwx----- 2 vijayagagla vijayagagla 4096 Jan 14 13:58 .ssh
rw-r--r-- 1 vijayagagla vijayagagla 0 Apr 12 2025 .sudo_as_admin_successful
rw----- 1 vijayagagla vijayagagla 3159 Jan 14 15:19 .viminfo
rwxr-xr-x 6 vijayagagla vijayagagla 4096 Jan 13 14:37 Projects
rwxr-xr-x 5 vijayagagla vijayagagla 4096 Jan 14 09:57 archive-practice
rwxr-xr-x 2 vijayagagla vijayagagla 4096 Jan 14 11:03 bin
rw-r--r-- 1 vijayagagla vijayagagla 227 Jan 14 17:00 data.tgz
rwxr-xr-x 2 vijayagagla vijayagagla 4096 Jan 14 10:01 extracted-files
rw-r--r-- 1 root      root      22592 Apr 12 2025 get-docker.sh
rwxr-xr-x 1 vijayagagla vijayagagla 96 Jan 14 11:02 greeting.sh
rwxr-xr-x 2 vijayagagla vijayagagla 4096 Jan 14 16:36 sandbox
rw----- 1 vijayagagla vijayagagla 419 Jan 14 12:27 vijayagagla
rw-r--r-- 1 vijayagagla vijayagagla 109 Jan 14 12:27 vijayagagla.pub
rwxr-xr-x 3 vijayagagla vijayagagla 4096 Jan 13 14:12 web-lab
vijayagagla@DESKTOP-FP4OP26:~$ ls -la data.tgz
rw-r--r-- 1 vijayagagla vijayagagla 227 Jan 14 17:00 data.tgz
vijayagagla@DESKTOP-FP4OP26:~$ tar -xzf data.tgz -C /tmp
vijayagagla@DESKTOP-FP4OP26:~$ ls -la /tmp/sandbox
total 12
rwxr-xr-x 2 vijayagagla vijayagagla 4096 Jan 14 16:36 .
rwxrwxrwt 12 root      root      4096 Jan 14 17:02 ..
rw-r--r-- 1 vijayagagla vijayagagla 0 Jan 14 14:43 a
rw-r--r-- 1 vijayagagla vijayagagla 0 Jan 14 16:36 a.copy
rw-r--r-- 1 vijayagagla vijayagagla 0 Jan 14 14:43 b.moved
rw-r--r-- 1 vijayagagla vijayagagla 6 Jan 14 16:36 note.txt
vijayagagla@DESKTOP-FP4OP26:~$
```

As a user, I can check disk and memory quick stats. Tasks: `df -h`, `free -h` (or `vm_stat` on macOS + note conversion). Done when: paste outputs into `stats.txt`.

```
vijayagagla@DESKTOP-FP4OP26:~
```

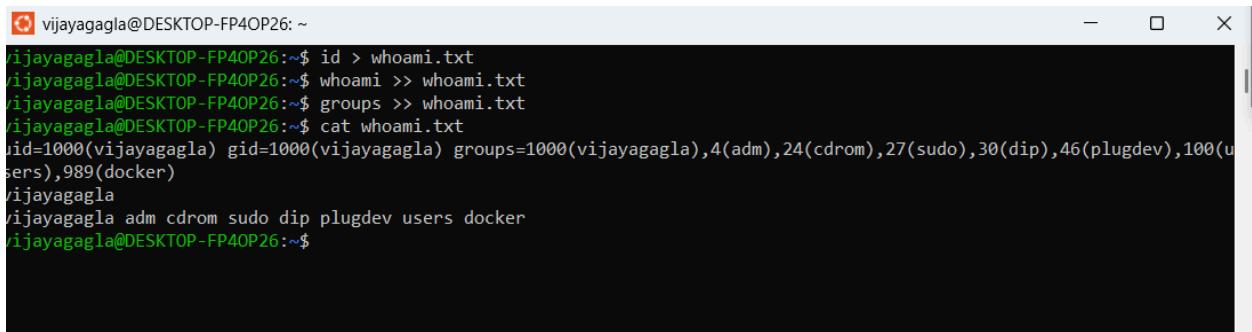
```
ijayagagla@DESKTOP-FP4OP26:~$ df -h
Filesystem      Size  Used Avail Use% Mounted on
none            5.8G   0    5.8G  0% /usr/lib/modules/5.15.167.4-microsoft-standard-WSL2
none            5.8G  4.0K  5.8G  1% /mnt/wsl
drivers          954G  223G  731G  24% /usr/lib/wsl/drivers
dev/sdc         1007G  2.4G  954G  1% /
none            5.8G  80K  5.8G  1% /mnt/wslg
none            5.8G   0    5.8G  0% /usr/lib/wsl/lib
bootfs           5.8G  2.4M  5.8G  1% /init
none            5.8G  524K  5.8G  1% /run
none            5.8G   0    5.8G  0% /run/lock
none            5.8G   0    5.8G  0% /run/shm
mpfs             4.0M   0    4.0M  0% /sys/fs/cgroup
none            5.8G  76K  5.8G  1% /mnt/wslg/versions.txt
none            5.8G  76K  5.8G  1% /mnt/wslg/doc
:\              954G  223G  731G  24% /mnt/c
mpfs            1.2G  16K  1.2G  1% /run/user/1000
ijayagagla@DESKTOP-FP4OP26:~$ free -h
total        used        free      shared  buff/cache   available
Mem:       11Gi     692Mi     10Gi      3.2Mi     625Mi     10Gi
Swap:      3.0Gi      0B     3.0Gi
ijayagagla@DESKTOP-FP4OP26:~$ df -h > stats.txt
ijayagagla@DESKTOP-FP4OP26:~$ free -h >> stats.txt
ijayagagla@DESKTOP-FP4OP26:~$ cat stats.txt
Filesystem      Size  Used Avail Use% Mounted on
none            5.8G   0    5.8G  0% /usr/lib/modules/5.15.167.4-microsoft-standard-WSL2
none            5.8G  4.0K  5.8G  1% /mnt/wsl
drivers          954G  223G  731G  24% /usr/lib/wsl/drivers
dev/sdc         1007G  2.4G  954G  1% /
none            5.8G  80K  5.8G  1% /mnt/wslg
none            5.8G   0    5.8G  0% /usr/lib/wsl/lib
bootfs           5.8G  2.4M  5.8G  1% /init
none            5.8G  524K  5.8G  1% /run
none            5.8G   0    5.8G  0% /run/lock
none            5.8G   0    5.8G  0% /run/shm
mpfs             4.0M   0    4.0M  0% /sys/fs/cgroup
none            5.8G  76K  5.8G  1% /mnt/wslg/versions.txt
none            5.8G  76K  5.8G  1% /mnt/wslg/doc
:\              954G  223G  731G  24% /mnt/c
mpfs            1.2G  16K  1.2G  1% /run/user/1000
total        used        free      shared  buff/cache   available
Mem:       11Gi     692Mi     10Gi      3.2Mi     626Mi     10Gi
Swap:      3.0Gi      0B     3.0Gi
ijayagagla@DESKTOP-FP4OP26:~$
```

As a user, I can get and set file permissions. Tasks: create `secret.txt`; run `chmod 600 secret.txt`; explain `rw-`. Done when: `ls -l secret.txt` matches `-rw-----.`



```
vijayagagla@DESKTOP-FP4OP26: ~
vijayagagla@DESKTOP-FP4OP26:~$ echo > secret.txt
vijayagagla@DESKTOP-FP4OP26:~$ ls -ls
total 72
4 drwxr-xr-x 6 vijayagagla vijayagagla 4096 Jan 13 14:37 Projects
4 drwxr-xr-x 5 vijayagagla vijayagagla 4096 Jan 14 09:57 archive-practice
4 drwxr-xr-x 2 vijayagagla vijayagagla 4096 Jan 14 11:03 bin
4 -rw-r--r-- 1 vijayagagla vijayagagla 227 Jan 14 17:00 data.tgz
4 drwxr-xr-x 2 vijayagagla vijayagagla 4096 Jan 14 10:01 extracted-files
24 -rw-r--r-- 1 root      root      22592 Apr 12 2025 get-docker.sh
4 -rwxr-xr-x 1 vijayagagla vijayagagla 96 Jan 14 11:02 greeting.sh
4 drwxr-xr-x 2 vijayagagla vijayagagla 4096 Jan 14 16:36 sandbox
4 -rw-r--r-- 1 vijayagagla vijayagagla 1 Jan 14 17:08 secret.txt
4 -rw-r--r-- 1 vijayagagla vijayagagla 1041 Jan 14 17:07 stats.txt
4 -rw----- 1 vijayagagla vijayagagla 419 Jan 14 12:27 vijayagagla
4 -rw-r--r-- 1 vijayagagla vijayagagla 109 Jan 14 12:27 vijayagagla.pub
4 drwxr-xr-x 3 vijayagagla vijayagagla 4096 Jan 13 14:12 web-lab
vijayagagla@DESKTOP-FP4OP26:~$ chmod 600 secret.txt
vijayagagla@DESKTOP-FP4OP26:~$ ls -l secret.txt
-rw----- 1 vijayagagla vijayagagla 1 Jan 14 17:08 secret.txt
vijayagagla@DESKTOP-FP4OP26:~$
```

As a user, I can see who I am and which groups I'm in. Tasks: `id`, `whoami`, `groups`. Done when: outputs recorded in `whoami.txt`.



```
vijayagagla@DESKTOP-FP4OP26: ~
vijayagagla@DESKTOP-FP4OP26:~$ id > whoami.txt
vijayagagla@DESKTOP-FP4OP26:~$ whoami >> whoami.txt
vijayagagla@DESKTOP-FP4OP26:~$ groups >> whoami.txt
vijayagagla@DESKTOP-FP4OP26:~$ cat whoami.txt
uid=1000(vijayagagla) gid=1000(vijayagagla) groups=1000(vijayagagla),4(adm),24(cdrom),27(sudo),30(dip),46(plugdev),100(users),989(docker)
vijayagagla
vijayagagla adm cdrom sudo dip plugdev users docker
vijayagagla@DESKTOP-FP4OP26:~$
```

Processes & Scheduling

<https://trello.com/c/3jq0SD8k/27-processes-scheduling-vijaya>

The screenshot shows a Trello card with the following details:

- Card Title:** Processes & Scheduling -Vijaya
- Actions:** + Add, Labels, Dates, Checklist, Members
- Description:**
 - As a user, I can list and filter running processes. Tasks: `ps aux | grep $USER`, `top -b -n1 > top.txt`. Done when: `top.txt` exists.
 - As a user, I can create a background task and stop it. Tasks: `sleep 120 &`, `jobs`, `kill %1`. Done when: `jobs` shows no running job.
 - As a user, I can schedule a one-line cron job I can safely observe. Tasks: `crontab -e → */5 * * * * date >> ~/cron-heartbeat.log`. Done when: log has ≥2 new lines after 10–12 minutes. (Optional: remove later.)
- Attachments:** PDF file named "Processes & Scheduling.pdf" added 18 minutes ago.
- Comments and activity:**
 - Vijaya Bhaskar Gagla moved this card from In progress to Done 17 minutes ago.
 - Vijaya Bhaskar Gagla attached Processes & Scheduling.pdf to this card 18 minutes ago. [Reply](#)
 - Vijaya Bhaskar Gagla moved this card from To Do to Doing 1 hour ago.
 - Vijaya Bhaskar Gagla added this card to To Do 1 hour ago.

As a user, I can list and filter running processes. Tasks: `ps aux | grep $USER`, `top -b -n1 > top.txt`. Done when: `top.txt` exists

```
vijayagagla@DESKTOP-FP4OP26:~$ ps aux | grep $USER
vijayagagla 2364 0.0 0.0 4092 1896 pts/0 S+ 17:21 0:00 grep --color=auto vijayagagla
vijayagagla@DESKTOP-FP4OP26:~$ top -b -n1 > top.txt
vijayagagla@DESKTOP-FP4OP26:~$ ls -la top.txt
-rw-r--r-- 1 vijayagagla vijayagagla 2583 Jan 14 17:21 top.txt
vijayagagla@DESKTOP-FP4OP26:~$
```

As a user, I can create a background task and stop it. Tasks: `sleep 120 &`, `jobs`, `kill %1`. Done when: `jobs` shows no running job.

```
vijayagagla@DESKTOP-FP4OP26:~$ sleep 120 &
[1] 2424
vijayagagla@DESKTOP-FP4OP26:~$ jobs
[1]+  Running                  sleep 120 &
vijayagagla@DESKTOP-FP4OP26:~$ kill %1
vijayagagla@DESKTOP-FP4OP26:~$ jobs
[1]+  Terminated                sleep 120
vijayagagla@DESKTOP-FP4OP26:~$
```

As a user, I can schedule a one-line cron job I can safely observe. Tasks: `crontab -e` → `* /5 * * * * date >> ~/cron-heartbeat.log`. Done when: log has ≥2 new lines after 10–12 minutes.

```
vijayagagla@DESKTOP-FP4OP26:~$ cat cron-heartbeat.log
Wed Jan 14 17:35:01 CET 2026
Wed Jan 14 17:40:00 CET 2026
Wed Jan 14 17:45:01 CET 2026
Wed Jan 14 17:50:01 CET 2026
```

Networking

<https://trello.com/c/9K6KVALm/28-networking-vijaya>

The screenshot shows a Trello card titled "Networking -Vijaya". The card has the following details:

- Actions:** + Add, Labels, Dates, Checklist, Members.
- Description:**
 - As a user, I can inspect my current IP and routes. Tasks: `ip a` (or `ifconfig`), `ip route`. Done when: save to `net.txt`.
 - As a user, I can test HTTP with curl in three ways. Tasks: `curl -I https://example.com`, `curl -s https://example.com > /tmp/e.html`, `curl -w "%{time_total}\n" -o /dev/null -s https://example.com`. Done when: show headers, file saved, timing value captured.
 - As a user, I can resolve DNS for two domains. Tasks: `dig +short ironhack.com`, `nslookup example.org`. Done when: IPs recorded in `dns.txt`.
- Attachments:** Files

The right side of the card displays the "Comments and activity" stream:

- Vijaya Bhaskar Gagla moved this card from In progress to Done 5 minutes ago
- Vijaya Bhaskar Gagla attached Networking.pdf to this card 5 minutes ago
- Vijaya Bhaskar Gagla moved this card from Backlog to Doing 23 minutes ago
- Vijaya Bhaskar Gagla added this card to To Do 23 minutes ago

As a user, I can inspect my current IP and routes. Tasks: `ip a` (or `ifconfig`), `ip route`. Done when: save to `net.txt`.

```

ijayagagla@DESKTOP-FP4OP26:~$ ip a
::: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet 10.255.255.254/32 brd 10.255.255.254 scope global lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
::: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1492 qdisc mq state UP group default qlen 1000
    link/ether 00:15:5d:99:3c:50 brd ff:ff:ff:ff:ff:ff
    inet 172.22.209.161/20 brd 172.22.223.255 scope global eth0
        valid_lft forever preferred_lft forever
    inet6 fe80::215:5dff:fe99:3c50/64 scope link
        valid_lft forever preferred_lft forever
::: docker0: <NO-CARRIER,BROADCAST,MULTICAST,UP> mtu 1500 qdisc noqueue state DOWN group default
    link/ether 32:41:3a:21:5e:25 brd ff:ff:ff:ff:ff:ff
    inet 172.17.0.1/16 brd 172.17.255.255 scope global docker0
        valid_lft forever preferred_lft forever
ijayagagla@DESKTOP-FP4OP26:~$ ip route
default via 172.22.208.1 dev eth0 proto kernel
172.17.0.0/16 dev docker0 proto kernel scope link src 172.17.0.1 linkdown
172.22.208.0/20 dev eth0 proto kernel scope link src 172.22.209.161
ijayagagla@DESKTOP-FP4OP26:~$ ip a > net.txt
ijayagagla@DESKTOP-FP4OP26:~$ ip route >> nett.txt
ijayagagla@DESKTOP-FP4OP26:~$ cat net.txt
::: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet 10.255.255.254/32 brd 10.255.255.254 scope global lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
::: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1492 qdisc mq state UP group default qlen 1000
    link/ether 00:15:5d:99:3c:50 brd ff:ff:ff:ff:ff:ff
    inet 172.22.209.161/20 brd 172.22.223.255 scope global eth0
        valid_lft forever preferred_lft forever
    inet6 fe80::215:5dff:fe99:3c50/64 scope link
        valid_lft forever preferred_lft forever
::: docker0: <NO-CARRIER,BROADCAST,MULTICAST,UP> mtu 1500 qdisc noqueue state DOWN group default
    link/ether 32:41:3a:21:5e:25 brd ff:ff:ff:ff:ff:ff
    inet 172.17.0.1/16 brd 172.17.255.255 scope global docker0
        valid_lft forever preferred_lft forever
ijayagagla@DESKTOP-FP4OP26:~$ -

```

As a user, I can test HTTP with curl in three ways. Tasks: `curl -I`

```

https://example.com, curl -s https://example.com > /tmp/e.html,
curl -w "%{time_total}\n" -o /dev/null -s https://example.com.

```

Done when: show headers, file saved, timing value captured.

```
vijayagagla@DESKTOP-FP4OP26:~$ curl -I https://example.com
HTTP/2 200
date: Wed, 14 Jan 2026 16:37:24 GMT
content-type: text/html
cf-ray: 9bde8ec928e662ec-HAM
last-modified: Tue, 13 Jan 2026 19:10:53 GMT
allow: GET, HEAD
accept-ranges: bytes
age: 5104
cf-cache-status: HIT
server: cloudflare

vijayagagla@DESKTOP-FP4OP26:~$ curl -s https://example.com > /tmp/e.html
vijayagagla@DESKTOP-FP4OP26:~$ curl -w "%{time_total}\n" -o /dev/null -s https://example.com
0.093973
vijayagagla@DESKTOP-FP4OP26:~$ cat /tmp/e.html
<!doctype html><html lang="en"><head><title>Example Domain</title><meta name="viewport" content="width=device-width, initial-scale=1"><style>body{background:#eee; width:60vw; margin:15vh auto; font-family:system-ui, sans-serif}h1{font-size:1.5em}div{opacity:0.8}a:link, a:visited{color:#348}</style><body><div><h1>Example Domain</h1><p>This domain is for use in documentation examples without needing permission. Avoid use in operations.<p><a href="https://iana.org/domains/example">Learn more</a></div></body></html>
vijayagagla@DESKTOP-FP4OP26:~$
```

As a user, I can resolve DNS for two domains. Tasks: `dig +short`

`ironhack.com, nslookup example.org`. Done when: IPs recorded in `dns.txt`.

```
vijayagagla@DESKTOP-FP4OP26:~$ dig +short ironhack.com >> dns.txt
nslookup example.org >> dns.txt
vijayagagla@DESKTOP-FP4OP26:~$ cat dns.txt
172.67.157.38
104.21.40.221
Server:          10.255.255.254
Address:         10.255.255.254#53

Non-authoritative answer:
Name:   example.org
Address: 104.18.2.24
Name:   example.org
Address: 104.18.3.24
Name:   example.org
Address: 2606:4700::6812:218
Name:   example.org
Address: 2606:4700::6812:318
```