

Set Up Lab Workspace

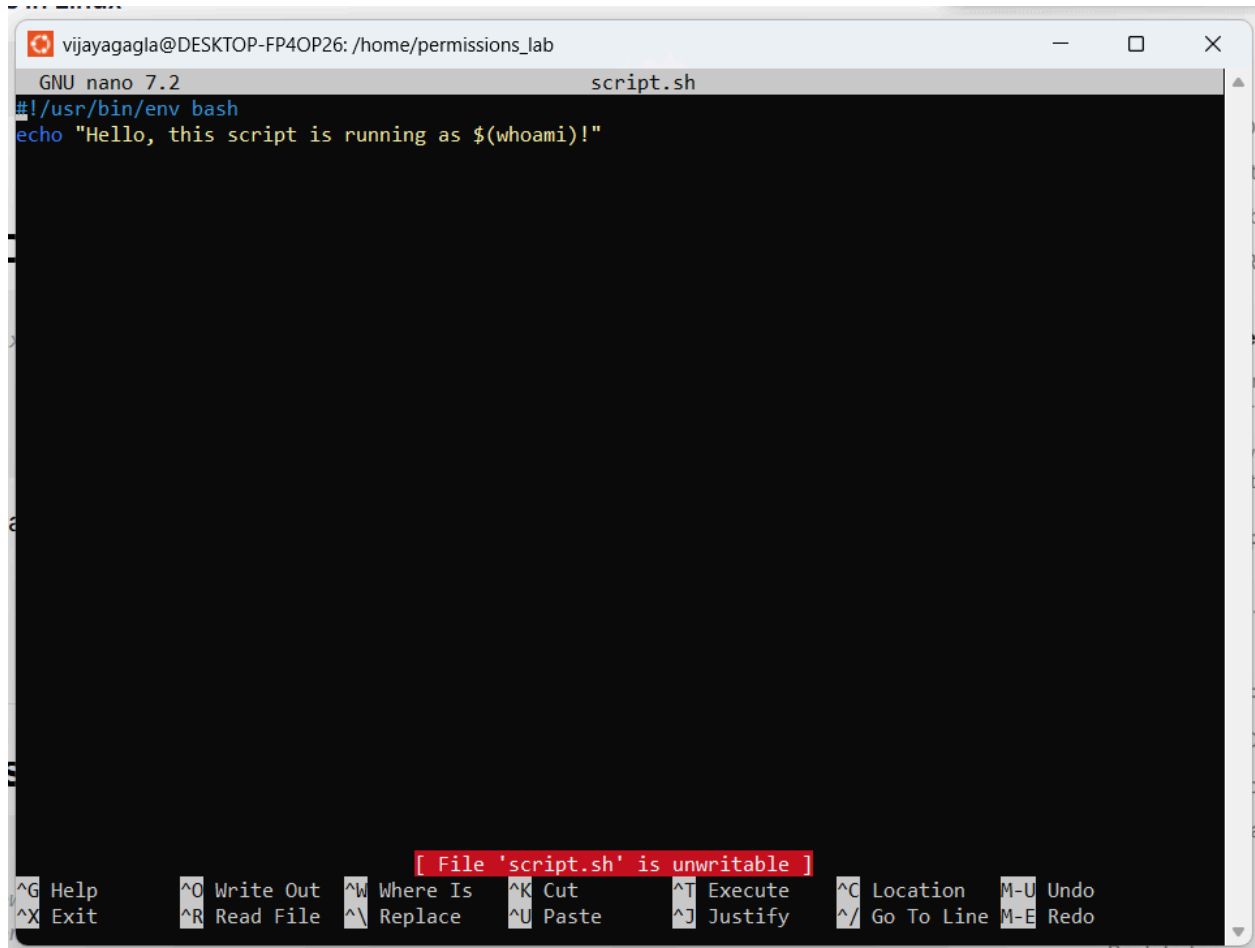
```
vijayagagla@DESKTOP-FP40P26: ~  
vijayagagla@DESKTOP-FP40P26:~$ ls  
Projects get-docker.sh web-lab  
vijayagagla@DESKTOP-FP40P26:~$ ls -la  
total 72  
drwxr-x--- 8 vijayagagla vijayagagla 4096 Jan 13 14:27 .  
drwxr-xr-x 3 root root 4096 Apr 12 2025 ..  
lrwxrwxrwx 1 vijayagagla vijayagagla 22 Dec 1 09:58 .aws -> /mnt/c/Users/User/.aws  
lrwxrwxrwx 1 vijayagagla vijayagagla 24 Dec 1 09:58 .azure -> /mnt/c/Users/User/.azure  
-rw----- 1 vijayagagla vijayagagla 99 Jan 13 09:23 .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  
drwx----- 2 vijayagagla vijayagagla 4096 Apr 12 2025 .cache  
drwxr-xr-x 4 vijayagagla vijayagagla 4096 Dec 1 09:58 .docker  
drwxr-xr-x 2 vijayagagla vijayagagla 4096 Dec 1 10:00 .kube  
drwxr-xr-x 2 vijayagagla vijayagagla 4096 Apr 12 2025 .landscape  
-rw-r--r-- 1 vijayagagla vijayagagla 0 Jan 13 09:09 .motd_shown  
-rw-r--r-- 1 vijayagagla vijayagagla 807 Apr 12 2025 .profile  
-rw-r--r-- 1 vijayagagla vijayagagla 0 Apr 12 2025 .sudo_as_admin_successful  
drwxr-xr-x 6 vijayagagla vijayagagla 4096 Jan 13 14:37 Projects  
-rw-r--r-- 1 root root 22592 Apr 12 2025 get-docker.sh  
drwxr-xr-x 3 vijayagagla vijayagagla 4096 Jan 13 14:12 web-lab  
vijayagagla@DESKTOP-FP40P26:~$ pwd  
/home/vijayagagla  
vijayagagla@DESKTOP-FP40P26:~$
```

```
vijayagagla@DESKTOP-FP40P26:/home$ sudo mkdir permissions_lab  
[sudo] password for vijayagagla:  
vijayagagla@DESKTOP-FP40P26:/home$ pwd  
/home  
vijayagagla@DESKTOP-FP40P26:/home$ ls  
permissions_lab vijayagagla  
vijayagagla@DESKTOP-FP40P26:/home$ sudo chmod 777 permissions_lab  
vijayagagla@DESKTOP-FP40P26:/home$ cd permissions_lab  
vijayagagla@DESKTOP-FP40P26:/home/permissions_lab$
```

Create & Run Your First Script

```
vijayagagla@DESKTOP-FP40P26:/home/permissions_lab$ nano script.sh
vijayagagla@DESKTOP-FP40P26:/home/permissions_lab$ cat script.sh
#!/usr/bin/env bash
echo "Hello, this script is running as $(whoami)!"
vijayagagla@DESKTOP-FP40P26:/home/permissions_lab$ nano script.sh
vijayagagla@DESKTOP-FP40P26:/home/permissions_lab$ ls -l script.sh
-rw-r--r-- 1 vijayagagla vijayagagla 71 Jan 13 15:00 script.sh
vijayagagla@DESKTOP-FP40P26:/home/permissions_lab$ chmod u+x script.sh # u = user (owner)
vijayagagla@DESKTOP-FP40P26:/home/permissions_lab$ ls -l script.sh
-rwxr--r-- 1 vijayagagla vijayagagla 71 Jan 13 15:00 script.sh
vijayagagla@DESKTOP-FP40P26:/home/permissions_lab$ ./script.sh
Hello, this script is running as vijayagagla!
vijayagagla@DESKTOP-FP40P26:/home/permissions_lab$
```

```
Hello, this script is running as vijayagagla!
vijayagagla@DESKTOP-FP40P26:/home/permissions_lab$ chmod u-x script.sh
vijayagagla@DESKTOP-FP40P26:/home/permissions_lab$ ./script.sh
bash: ./script.sh: Permission denied
vijayagagla@DESKTOP-FP40P26:/home/permissions_lab$ chmod u+x script.sh # u = user (owner)
vijayagagla@DESKTOP-FP40P26:/home/permissions_lab$ chmod 755 script.sh # rwx r-x r-x
vijayagagla@DESKTOP-FP40P26:/home/permissions_lab$ chmod u-w script.sh # now r-x r-x r-x (555)
vijayagagla@DESKTOP-FP40P26:/home/permissions_lab$ nano script.sh
vijayagagla@DESKTOP-FP40P26:/home/permissions_lab$ nano script.sh
vijayagagla@DESKTOP-FP40P26:/home/permissions_lab$
```



```
vijayagagla@DESKTOP-FP4OP26: /home/permissions_lab
GNU nano 7.2 script.sh
#!/usr/bin/env bash
echo "Hello, this script is running as $(whoami)!"

[ File 'script.sh' is unwritable ]
^G Help      ^O Write Out ^W Where Is  ^K Cut       ^T Execute   ^C Location  M-U Undo
^X Exit      ^R Read File ^\ Replace   ^U Paste     ^J Justify   ^_ Go To Line M-E Redo
```

Directory Permissions Quick Demo

Tester User Permissions 👍

```
tester@DESKTOP-FP4OP26: /home/permissions_lab/dir2
tester@DESKTOP-FP4OP26:/home$ cd /home/permissions_lab_*
-bash: cd: /home/permissions_lab_*: No such file or directory
tester@DESKTOP-FP4OP26:/home$ cd /home/permissions_lab
tester@DESKTOP-FP4OP26:/home/permissions_lab$ ls
dir1  dir2  script.sh
tester@DESKTOP-FP4OP26:/home/permissions_lab$ cd dir1
-bash: cd: dir1: Permission denied
tester@DESKTOP-FP4OP26:/home/permissions_lab$ cd dir2
tester@DESKTOP-FP4OP26:/home/permissions_lab/dir2$ _
```

7.1 script_list.sh — list both dirs

```
vijayagagla@DESKTOP-FP4OP26:/home/permissions_lab/dir1$ cd ..
vijayagagla@DESKTOP-FP4OP26:/home/permissions_lab$ nano script_list.sh
vijayagagla@DESKTOP-FP4OP26:/home/permissions_lab$ chmod +x script_list.sh
./script_list.sh
\nContents of dir1:
script_list.sh  script_move.sh
\nContents of dir2:
vijayagagla@DESKTOP-FP4OP26:/home/permissions_lab$ _
```

7.2 script_move.sh — move file1 → dir2

```
vijayagagla@DESKTOP-FP40P26:/home/permissions_lab$ touch dir1/file1.txt
echo "moving..." > dir1/file1.txt

nano script_move.sh
vijayagagla@DESKTOP-FP40P26:/home/permissions_lab$ cat script_move.sh
#!/usr/bin/env bash
mv dir1/file1.txt dir2/
vijayagagla@DESKTOP-FP40P26:/home/permissions_lab$ chmod +x script_move.sh
./script_move.sh
vijayagagla@DESKTOP-FP40P26:/home/permissions_lab$ ls dir2
file1.txt
vijayagagla@DESKTOP-FP40P26:/home/permissions_lab$ _
```

7.3 cleanup.sh — delete *.txt

```
vijayagagla@DESKTOP-FP40P26:/home/permissions_lab$ nano cleanup.sh
vijayagagla@DESKTOP-FP40P26:/home/permissions_lab$ chmod +x cleanup.sh
./cleanup.sh
removed 'dir2/file1.txt'
vijayagagla@DESKTOP-FP40P26:/home/permissions_lab$ _
```