

creating Shared Group and Users

```
vijayagagla@DESKTOP-FP4OP26: ~  
vijayagagla@DESKTOP-FP4OP26:~$ groups unix_user  
unix_user : unix_user sharedgroup  
vijayagagla@DESKTOP-FP4OP26:~$ groups test  
test : test sharedgroup  
vijayagagla@DESKTOP-FP4OP26:~$
```

Setting Up the Shared Directory

```
vijayagagla@DESKTOP-FP4OP26:~$ pwd  
/home/vijayagagla  
vijayagagla@DESKTOP-FP4OP26:~$ sudo chmod 770 /home/unix_user  
[sudo] password for vijayagagla:  
vijayagagla@DESKTOP-FP4OP26:~$ touch /home/unix_user/shared_file.txt  
touch: cannot touch '/home/unix_user/shared_file.txt': Permission denied  
vijayagagla@DESKTOP-FP4OP26:~$ sudo touch /home/unix_user/shared_file.txt  
vijayagagla@DESKTOP-FP4OP26:~$ sudo chgrp sharedgroup /home/unix_user/shared_file.txt  
vijayagagla@DESKTOP-FP4OP26:~$ sudo chmod 660 /home/unix_user/shared_file.txt
```

Verifying Permissions

```
vijayagagla@DESKTOP-FP4OP26:/home$ su - unix_user  
Password:  
Welcome to Ubuntu 24.04.2 LTS (GNU/Linux 5.15.167.4-microsoft-standard-WSL2 x86_64)  
  
 * Documentation:  https://help.ubuntu.com  
 * Management:    https://landscape.canonical.com  
 * Support:        https://ubuntu.com/pro  
  
System information as of Tue Jan 13 17:02:38 CET 2026  
  
 System load:  0.08          Processes:      34  
 Usage of /:   0.2% of 1006.85GB  Users logged in:   1  
 Memory usage: 4%            IPv4 address for eth0: 172.22.209.161  
 Swap usage:   0%  
  
This message is shown once a day. To disable it please create the  
/home/unix_user/.hushlogin file.  
$
```

```
$ ls -ld /home/unix_user
drwxrwx--- 3 root sharedgroup 4096 Jan 13 17:02 /home/unix_user
$ ls -l /home/unix_user/shared_file.txt
-rw-rw---- 1 root sharedgroup 0 Jan 13 16:57 /home/unix_user/shared_file.txt
$ ls -l /home/unix_user/shared_file.txt
-rw-rw---- 1 root sharedgroup 0 Jan 13 16:57 /home/unix_user/shared_file.txt
$
```

Access and Modify the Shared File

```
This message is shown once a day. To disable it please create the
/home/test/.hushlogin file.
touch: cannot touch '/home/test/.motd_shown': No such file or directory
$ echo "Content added by test user." >> /home/unix_user/shared_file.txt
$ cat /home/unix_user/shared_file.txt
Initial content by unix_user.
Content added by test user.
$
```

Advanced Access Control (Optional)

```
vijayagagla@DESKTOP-FP4OP26: ~
vijayagagla@DESKTOP-FP4OP26:~$ sudo chmod g+s /home/unix_user
vijayagagla@DESKTOP-FP4OP26:~$ ls -ld /home/unix_user
lrwxrws--- 3 root sharedgroup 4096 Jan 13 17:02 /home/unix_user
vijayagagla@DESKTOP-FP4OP26:~$
```

4.2 Applying the Sticky Bit for Secure Collaboration

```
vijayagagla@DESKTOP-FP4OP26:~$ sudo chmod +t /home/unix_user
vijayagagla@DESKTOP-FP4OP26:~$ ls -ld /home/unix_user
drwxrws--T 3 root sharedgroup 4096 Jan 13 17:02 /home/unix_user
vijayagagla@DESKTOP-FP4OP26:~$
```