

Activity: Users and Groups

COMMAND AND RESULTS

Part 1: User Management

1. Create a new user named student1. What command did you use?
 - `sudo useradd student1`
2. Set a password for student1. Provide the command.
 - `sudo passwd student1`
3. Modify student1's account to expire on December 31, 2025.
 - `sudo chage -E 2025-12-31 student1`
4. List all users in the system. What file stores user account details?
 - `cat /etc/passwd`

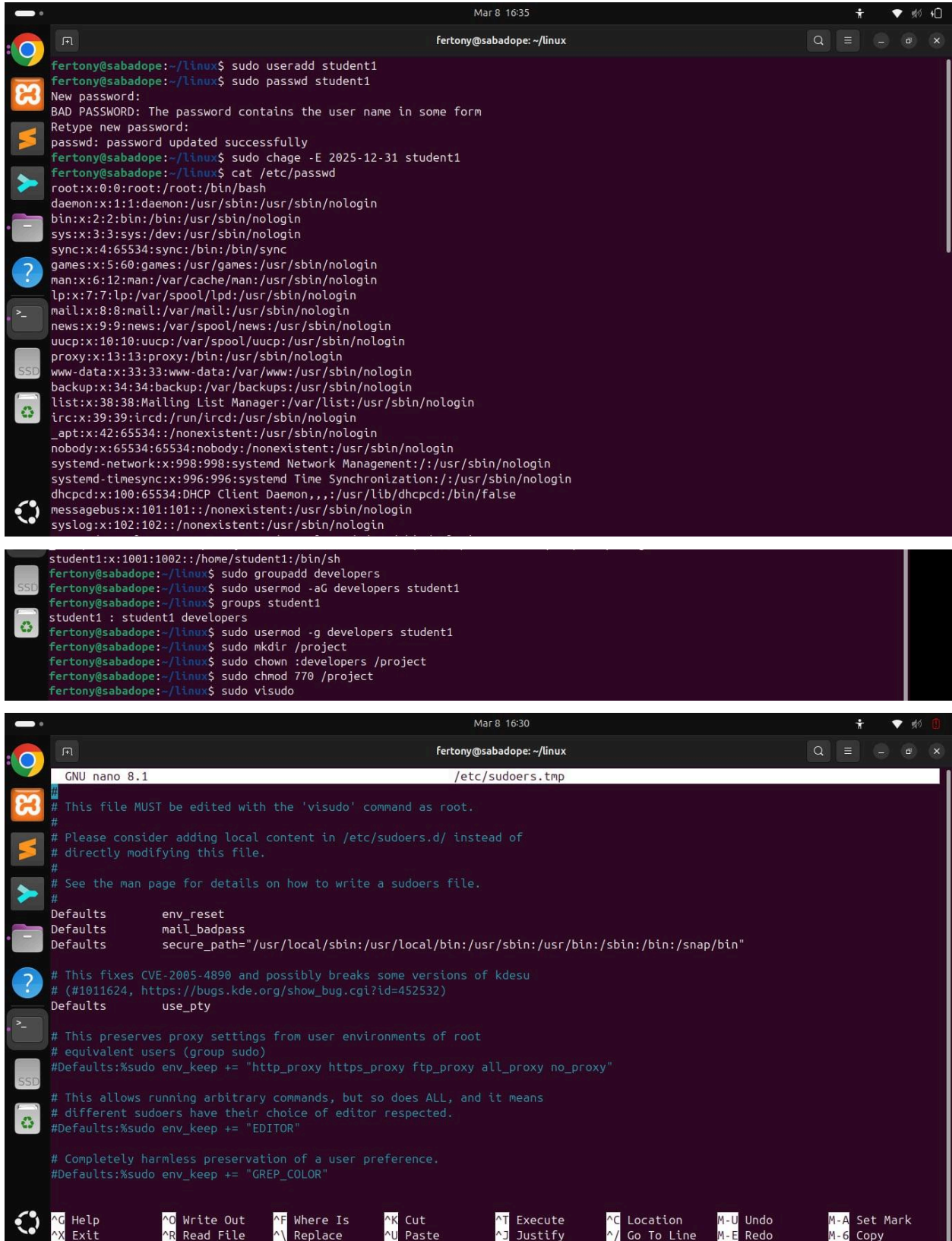
Part 2: Group Management

5. Create a new group called developers.
 - `sudo groupadd developers`
6. Add student1 to the developers group.
 - `sudo usermod -aG developers student1`
7. Verify that student1 is now part of developers.
 - `groups student1`
8. Change the primary group of student1 to developers.
 - `sudo usermod -g developers student1`

Part 3: File Permissions & Sudo Access

9. As the root user, create a directory /project. Change its group ownership to developers and set permissions so that only members of developers can modify files inside it.
 - `sudo mkdir /project`
 - `sudo chown :developers /project`
 - `sudo chmod 770 /project`
10. Grant student1 sudo privileges. What file needs to be modified, and how do you safely edit it?
 - `sudo visudo`
 - `student1 ALL=(ALL) ALL`
11. Switch to student1 and execute a command using sudo. What happens if student1 is not in the sudoers file?
 - `su - student1`
"su: warning: cannot change directory to /home/student1: No such file or directory"

SCREENSHOT



The screenshot shows a terminal window titled "fertony@sabadope: ~/linux" with a timestamp of "Mar 8 16:35". The user "fertony" is performing several administrative tasks:

- Creating a user "student1" with `sudo useradd student1`.
- Setting a password for "student1" with `sudo passwd student1`. The password is rejected because it contains the username, and the user is prompted to retype it.
- Changing the password expiration date for "student1" with `sudo chage -E 2025-12-31 student1`.
- Viewing the `/etc/passwd` file with `cat /etc/passwd`, showing system users like `root:x:0:0:root:/root:/bin/bash` and `daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin`.
- Adding a group "developers" with `sudo groupadd developers`.
- Adding "student1" to the "developers" group with `sudo usermod -aG developers student1`.
- Verifying group membership with `groups student1`, which outputs `student1 : student1 developers`.
- Changing the primary group of "student1" to "developers" with `sudo usermod -g developers student1`.
- Creating a directory `/project` with `sudo mkdir /project`.
- Assigning permissions `770` to `/project` with `sudo chown :developers /project` and `sudo chmod 770 /project`.
- Running `visudo` to edit the sudoers file.

The second part of the screenshot shows the `visudo` editor (GNU nano 8.1) editing `/etc/sudoers.tmp`. It displays the default sudoers configuration, including settings for `Defaults` (e.g., `env_reset`, `mail_badpass`, `secure_path="/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/snap/bin"`) and a section for preserving proxy settings and editor preferences.

```
Mar 8 16:30
ferTony@sabadope: ~/linux
GNU nano 8.1 /etc/sudoers.tmp *
# "sudo scp" or "sudo rsync" should be able to use your SSH agent.
#Defaults:%sudo env_keep += "SSH_AGENT_PID SSH_AUTH_SOCK"
# Ditto for GPG agent
#Defaults:%sudo env_keep += "GPG_AGENT_INFO"
# Host alias specification
# User alias specification
# Cmnd alias specification
# User privilege specification
root    ALL=(ALL:ALL) ALL
# Members of the admin group may gain root privileges
%admin   ALL=(ALL) ALL
# Allow members of group sudo to execute any command
%sudo   ALL=(ALL:ALL) ALL
# See sudoers(5) for more information on "@include" directives:

@include /etc/sudoers.d

student1 ALL=(ALL) ALL
^C Help      ^O Write Out  ^F Where Is   ^K Cut        ^T Execute    ^C Location   M-U Undo      M-A Set Mark
^X Exit      ^R Read File  ^N Replace    ^U Paste      ^J Justify    ^_/ Go To Line  M-E Redo      M-6 Copy
```

```
student1 ALL=(ALL) ALL
Save modified buffer?
Y Yes
N No      ^C Cancel
```

```
student1 ALL=(ALL) ALL
File Name to Write: /etc/sudoers.tmp
^C Help      M-D DOS Format  M-A Append     M-B Backup File
^C Cancel    M-M Mac Format  M-P Prepend    ^T Browse
```

```
Mar 8 16:57
ferTony@sabadope: ~/linux
ferTony@sabadope:~/linux$ su - student1
Password:
su: warning: cannot change directory to /home/student1: No such file or directory
$ exit
ferTony@sabadope:~/linux$ sudo ls /root
snap
ferTony@sabadope:~/linux$
```