

Capstone Task Day 03

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Tasks:

1. `$ sudo groupadd iot_team`
`$ sudo gpasswd -a ibrahim iot_team`
2. `$ sudo useradd dev`
`$ sudo gpasswd -a dev iot_team`
3. `$ sudo chown -R dev:iot_team /home/ibrahim/iot_logger`
4. `$ sudo chmod 755 logs`
`$ su - dev`
5. `$ sudo userdel dev`

Screenshot:

```
ibrahim@rpi4: ~/iot_logger
ibrahim@rpi4: ~/iot_logger
ibrahim@rpi4:~/iot_logger $ sudo groupadd iot_team
ibrahim@rpi4:~/iot_logger $ sudo gpasswd -a ibrahim iot_team
Adding user ibrahim to group iot_team
ibrahim@rpi4:~/iot_logger $ newgrp
bash: warning: setlocale: LC_ALL: cannot change locale (en_US.UTF-8)
ibrahim@rpi4:~/iot_logger $ sudo useradd dev
ibrahim@rpi4:~/iot_logger $ sudo passwd dev
New password:
Retype new password:
passwd: password updated successfully
ibrahim@rpi4:~/iot_logger $ sudo gpasswd dev iot_team
Usage: gpasswd [option] GROUP

Options:
-a, --add USER           add USER to GROUP
-d, --delete USER       remove USER from GROUP
-h, --help               display this help message and exit
-Q, --root CHROOT_DIR   directory to chroot into
-r, --remove-password    remove the GROUP's password
-R, --restrict           restrict access to GROUP to its members
-M, --members USER,...  set the list of members of GROUP
-A, --administrators ADMIN,... set the list of administrators for GROUP

Except for the -A and -M options, the options cannot be combined.
ibrahim@rpi4:~/iot_logger $ sudo gpasswd -a dev iot_team
Adding user dev to group iot_team
ibrahim@rpi4:~/iot_logger $ sudo chown -R dev:iot_team /home/ibrahim/iot_logger
ibrahim@rpi4:~/iot_logger $ sudo chmod 755 logs
ibrahim@rpi4:~/iot_logger $ su - dev
Password:
su: warning: cannot change directory to /home/dev: No such file or directory
dev@rpi4:/home/ibrahim/iot_logger$ cd logs/
dev@rpi4:/home/ibrahim/iot_logger/logs$ ls
temperature_hard.log  temperature.log  temperature_soft.log
dev@rpi4:/home/ibrahim/iot_logger/logs$ exit
logout
ibrahim@rpi4:~/iot_logger $ sudo chown -R ibrahim:ibrahim /home/ibrahim/iot_logger
ibrahim@rpi4:~/iot_logger $ sudo userdel dev
ibrahim@rpi4:~/iot_logger $
```

Open-Ended Questions:

1. chang permissions using (chmod) command followd by permission then by file or directory : chmod premission file

file permissions : rwx read, write, execute

permissions for owner(u) followed by groups (g) then others(o)

we can use the charecters mode or octal numbers mode

1.charchter mode ex: chmod u+x file.c

thts means access the owner to execute file.c

(+) for add premission, (-) for remove permission, etc..

2.numbers mode: to convert from (drwxr-xr-x) to be 755

ex: chmod 755 file.c

2.octal notation: to convert from (drwxr-xr-x) to be 755

ex: chmod 755 file.c

umask: to remove some permissions from defulat premissions

if defulat = rwxr-xr-x

octal notation = 755

umask = --- r-- r--

after rmoving = rwx r-- r--

umask value = 044

then bitwise them = 744

command: \$umask 744

3.root user has all permissions (rwx) to all files, full control to the system

becouse this is dangerous

normall user restricted to their own home directory