

SCD

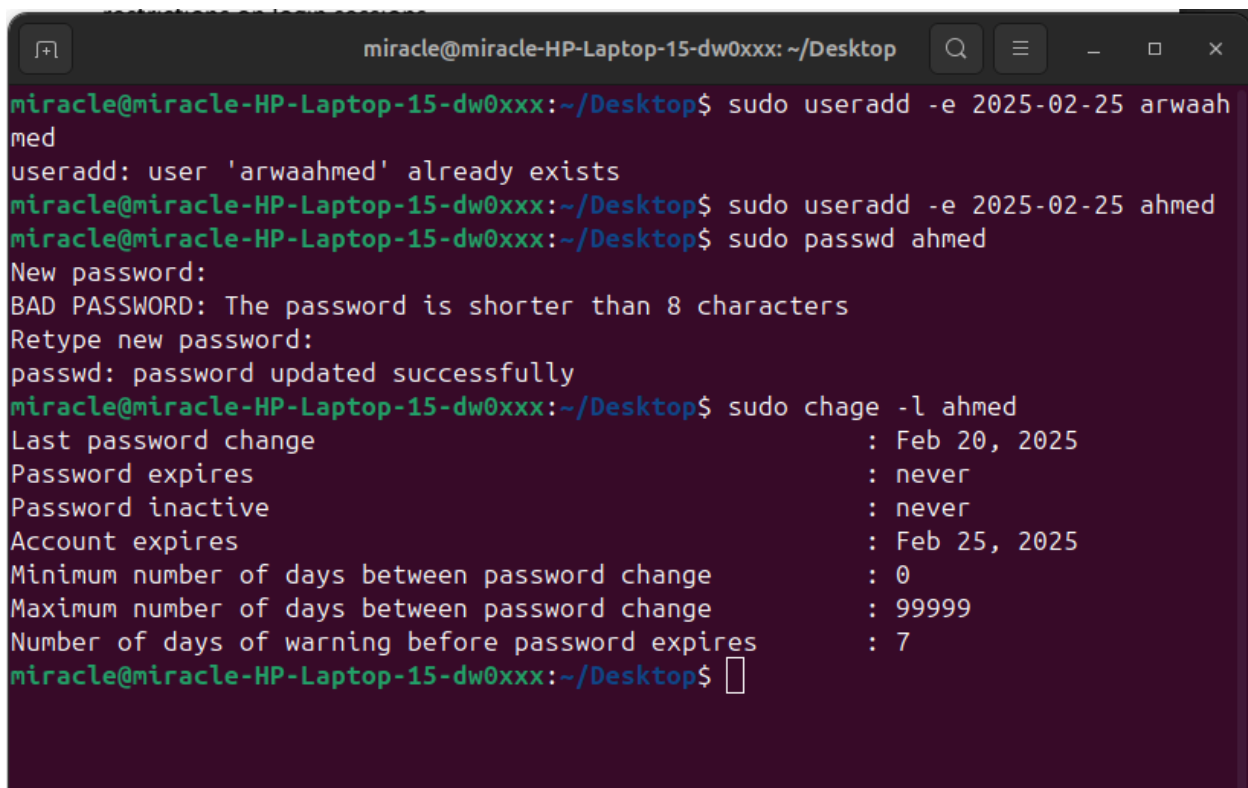
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SE - C

Lab 5

Question 1:

A terminal window with a dark background and light-colored text. The window title bar shows the user 'miracle' on a machine named 'miracle-HP-Laptop-15-dw0xxx' in the directory '~/Desktop'. The terminal shows a sequence of commands and their outputs: 1. 'sudo useradd -e 2025-02-25 arwaahmed' is executed, resulting in 'useradd: user 'arwaahmed' already exists'. 2. 'sudo useradd -e 2025-02-25 ahmed' is executed. 3. 'sudo passwd ahmed' is executed, prompting for a new password. The first attempt is rejected with 'BAD PASSWORD: The password is shorter than 8 characters'. The second attempt is successful, resulting in 'passwd: password updated successfully'. 4. 'sudo chage -l ahmed' is executed, displaying account details: Last password change (Feb 20, 2025), Password expires (never), Password inactive (never), Account expires (Feb 25, 2025), Minimum number of days between password change (0), Maximum number of days between password change (99999), and Number of days of warning before password expires (7). The prompt returns to the user.

```
miracle@miracle-HP-Laptop-15-dw0xxx: ~/Desktop$ sudo useradd -e 2025-02-25 arwaahmed
useradd: user 'arwaahmed' already exists
miracle@miracle-HP-Laptop-15-dw0xxx: ~/Desktop$ sudo useradd -e 2025-02-25 ahmed
miracle@miracle-HP-Laptop-15-dw0xxx: ~/Desktop$ sudo passwd ahmed
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: password updated successfully
miracle@miracle-HP-Laptop-15-dw0xxx: ~/Desktop$ sudo chage -l ahmed
Last password change                : Feb 20, 2025
Password expires                    : never
Password inactive                   : never
Account expires                     : Feb 25, 2025
Minimum number of days between password change : 0
Maximum number of days between password change : 99999
Number of days of warning before password expires : 7
miracle@miracle-HP-Laptop-15-dw0xxx: ~/Desktop$
```

Restrict simulation logins:

```
miracle@miracle-HP-Laptop-15-dw0xxx: ~  
miracle@miracle-HP-Laptop-15-dw0xxx:~$ nano /etc/security/limits.conf  
miracle@miracle-HP-Laptop-15-dw0xxx:~$ sudo nano /etc/security/limits.conf  
[sudo] password for miracle:  
miracle@miracle-HP-Laptop-15-dw0xxx:~$
```

Deny login during off-hours:

```
GNU nano 7.2 /etc/security/time.conf  
# for a rule to be active, ALL of service+ttys+users must be satisfied  
# by the applying process.  
#  
#  
# Here is a simple example: running blank on tty* (any ttyXXX device),  
# the users 'you' and 'me' are denied service all of the time  
#  
#blank;tty* & !ttyp*;you|me;!A10000-2400  
  
# Another silly example, user 'root' is denied xsh access  
# from pseudo terminals at the weekend and on Mondays.  
#xsh;ttyp*;root;!WdMo0000-2400  
  
#  
# End of example file.  
#  
login;*;intern;A102100-0600  
[ Wrote 66 lines ]
```

=====  
Question 2:

```
miracle@miracle-HP-Laptop-15-dw0xxx: ~/Desktop/SCD_Lab/Q2
miracle@miracle-HP-Laptop-15-dw0xxx:~$ nano /etc/security/limits.conf
miracle@miracle-HP-Laptop-15-dw0xxx:~$ sudo nano /etc/security/limits.conf
[sudo] password for miracle:
miracle@miracle-HP-Laptop-15-dw0xxx:~$ sudo nano /etc/security/time.conf
miracle@miracle-HP-Laptop-15-dw0xxx:~$ cd Desktop
miracle@miracle-HP-Laptop-15-dw0xxx:~/Desktop$ ls
SCD_Lab
miracle@miracle-HP-Laptop-15-dw0xxx:~/Desktop$ cd SCD_Lab
miracle@miracle-HP-Laptop-15-dw0xxx:~/Desktop/SCD_Lab$ mkdir Q2
miracle@miracle-HP-Laptop-15-dw0xxx:~/Desktop/SCD_Lab$ cd Q2
miracle@miracle-HP-Laptop-15-dw0xxx:~/Desktop/SCD_Lab/Q2$ sudo groupadd projectX
miracle@miracle-HP-Laptop-15-dw0xxx:~/Desktop/SCD_Lab/Q2$ sudo adduser dev1 dev2
fatal: The user `dev1' does not exist.
miracle@miracle-HP-Laptop-15-dw0xxx:~/Desktop/SCD_Lab/Q2$ sudo adduser dev1
info: Adding user `dev1' ...
info: Selecting UID/GID from range 1000 to 59999 ...
info: Adding new group `dev1' (1004) ...
info: Adding new user `dev1' (1004) with group `dev1(1004)' ...
info: Creating home directory `/home/dev1' ...
info: Copying files from `/etc/skel' ...
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: password updated successfully
```

Add users to the group:

```
miracle@miracle-HP-Laptop-15-dw0xxx: ~/Desktop/SCD_Lab/Q2
Room Number []: ^Z
[1]+  Stopped                  sudo adduser dev1
miracle@miracle-HP-Laptop-15-dw0xxx:~/Desktop/SCD_Lab/Q2$ sudo useradd dev1
useradd: user 'dev1' already exists
miracle@miracle-HP-Laptop-15-dw0xxx:~/Desktop/SCD_Lab/Q2$ sudo useradd dev2
miracle@miracle-HP-Laptop-15-dw0xxx:~/Desktop/SCD_Lab/Q2$ sudo adduser dev1 dev2
info: Adding user `dev1' to group `dev2' ...
warn: Waiting for lock to become available...
warn: Waiting for lock to become available...
warn: Waiting for lock to become available...
warn: Waiting for lock to become available...
warn: Waiting for lock to become available...
^Z
[2]+  Stopped                  sudo adduser dev1 dev2
miracle@miracle-HP-Laptop-15-dw0xxx:~/Desktop/SCD_Lab/Q2$ sudo useradd dev1 projectX
Usage: useradd [options] LOGIN
        useradd -D
        useradd -D [options]

Options:
        --badname          do not check for bad names
        -b, --base-dir BASE_DIR  base directory for the home directory of the
                                new account
```

Dev2 user add to projectX:

```
miracle@miracle-HP-Laptop-15-dw0xxx: ~/Desktop/SCD_Lab/Q2
-r, --system                create a system account
-R, --root CHROOT_DIR       directory to chroot into
-P, --prefix PREFIX_DIR     prefix directory where are located the /etc/* files
-s, --shell SHELL           login shell of the new account
-u, --uid UID               user ID of the new account
-U, --user-group            create a group with the same name as the user
-Z, --selinux-user SEUSER   use a specific SEUSER for the SELinux user mapping
--extrausers                Use the extra users database

miracle@miracle-HP-Laptop-15-dw0xxx:~/Desktop/SCD_Lab/Q2$ sudo useradd dev2 projectX
Usage: useradd [options] LOGIN
       useradd -D
       useradd -D [options]

Options:
  --badname                do not check for bad names
  -b, --base-dir BASE_DIR  base directory for the home directory of the new account
  --btrfs-subvolume-home   use BTRFS subvolume for home directory
  -c, --comment COMMENT    GECOS field of the new account
  -d, --home-dir HOME_DIR  home directory of the new account
```

Shared directory:

```
miracle@miracle-HP-Laptop-15-dw0xxx:~/Desktop/SCD_Lab/Q2$ sudo mkdir -p /opt/projectX
miracle@miracle-HP-Laptop-15-dw0xxx:~/Desktop/SCD_Lab/Q2$ sudo groupadd SharedUsers
groupadd: group 'SharedUsers' already exists
miracle@miracle-HP-Laptop-15-dw0xxx:~/Desktop/SCD_Lab/Q2$ sudo chmod -R 2775 /opt/projectX
miracle@miracle-HP-Laptop-15-dw0xxx:~/Desktop/SCD_Lab/Q2$
```

Using chmod g+s:

```
miracle@miracle-HP-Laptop-15-dw0xxx:~/Desktop/SCD_Lab/Q2$ sudo chmod g+s /opt/projectX
miracle@miracle-HP-Laptop-15-dw0xxx:~/Desktop/SCD_Lab/Q2$ ls -ld
drwxrwxr-x 2 miracle miracle 4096 Feb 20 09:30 .
miracle@miracle-HP-Laptop-15-dw0xxx:~/Desktop/SCD_Lab/Q2$
```

Question 3:

```
miracle@miracle-HP-Laptop-15-dw0xxx: ~/Desktop/SCD_Lab/Q2
GNU nano 7.2 /tmp/crontab.HGasIf/crontab
# To define the time you can provide concrete values for
# minute (m), hour (h), day of month (dom), month (mon),
# and day of week (dow) or use '*' in these fields (for 'any').
#
# Notice that tasks will be started based on the cron's system
# daemon's notion of time and timezones.
#
# Output of the crontab jobs (including errors) is sent through
# email to the user the crontab file belongs to (unless redirected).
#
# For example, you can run a backup of all your user accounts
# at 5 a.m every week with:
# 0 5 * * 1 tar -zcf /var/backups/home.tgz /home/
#
# For more information see the manual pages of crontab(5) and cron(8)
#
# m h dom mon dow command
*/30 * * * * who > /var/log/user_activity.log
0 0 * * * df -h /var/log/disk_usage.log
0 3 * * 0 fr [tmp/old_logs/

[ Wrote 26 lines ]
^G Help      ^O Write Out ^W Where Is  ^K Cut       ^T Execute   ^C Location
^X Exit      ^R Read File ^\ Replace   ^U Paste     ^J Justify   ^_ Go To Line

usage: crontab [-u user] [-e] [-s] [-l] [-i] [-c] [-o] [-f file]
miracle@miracle-HP-Laptop-15-dw0xxx:~/Desktop/SCD_Lab/Q2$ sudo crontab -e
no crontab for root - using an empty one

Select an editor. To change later, run 'select-editor'.
 1. /bin/nano      <---- easiest
 2. /usr/bin/vim.tiny
 3. /bin/ed

Choose 1-3 [1]: 1
crontab: installing new crontab
miracle@miracle-HP-Laptop-15-dw0xxx:~/Desktop/SCD_Lab/Q2$
```