Họ tên: Nguyễn Huỳnh Minh Tiến

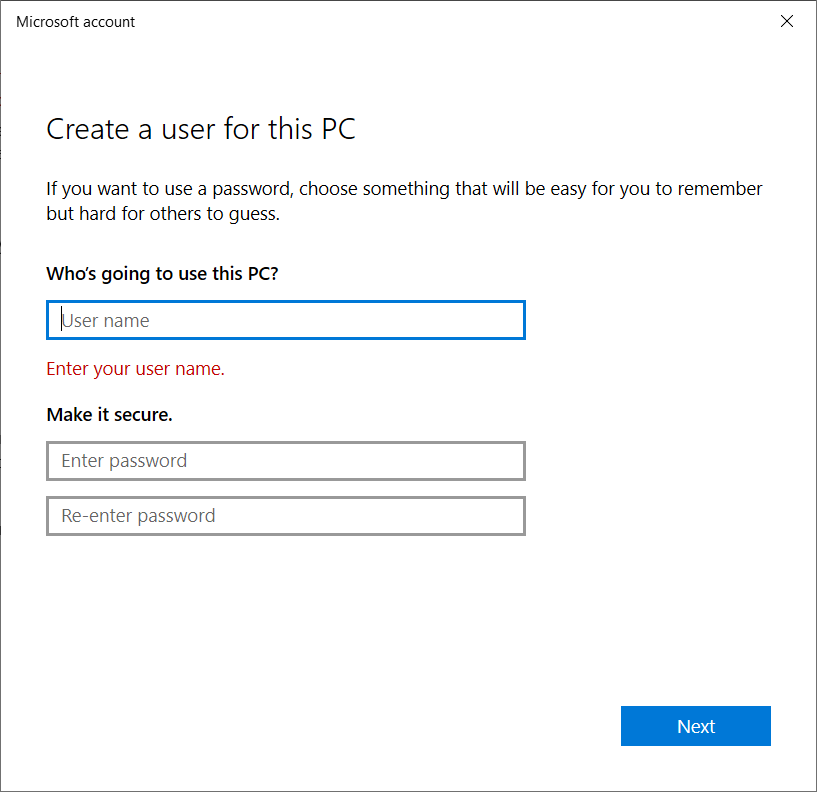
MSSV: 18110377

**Lab 2.1. Password policies (OS: MS Windows)**

* **Activity 1: (Create a new user)**

**(Windows 10 – version 2004)**

Start >> Setting >>Accounts >> Family & Other users >> Trong mục Other users chọn Add someone else to this PC

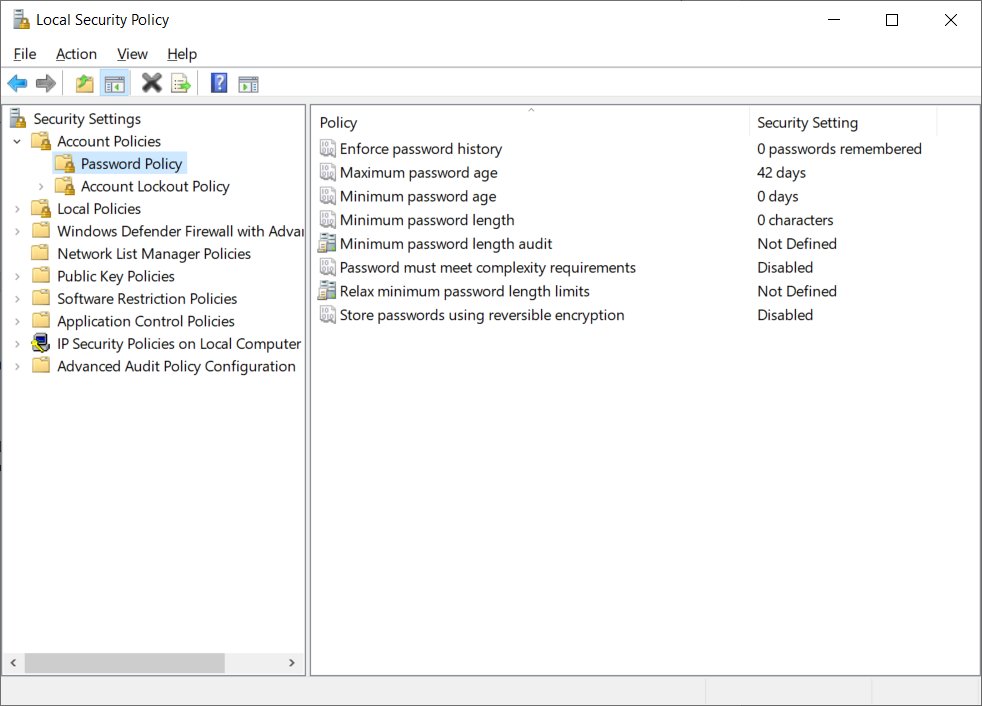


* **Activity 2: (Password Policy Settings for Length)**
* ***Step One:***

(1.) Continuing in **Control Panel** 🡪 **Administrative Tools** 🡪 **Local Security Policy.**

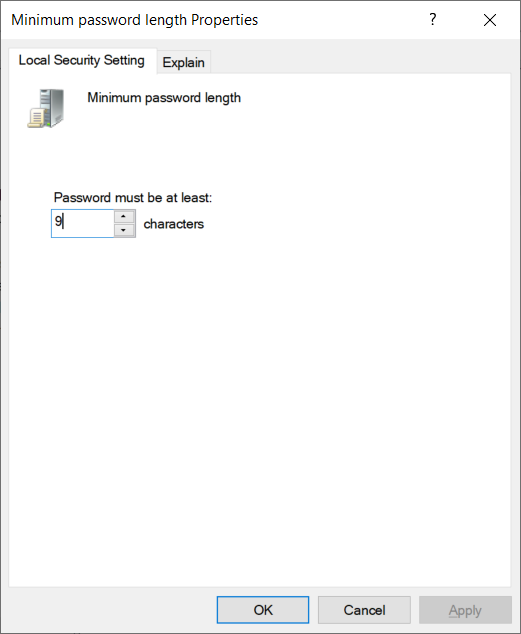
(2.) Expand **Account Policies**.

(3.) Click on the **Password Policy** option.



(4.) Double-click Minimum password length.

(5.) In the Minimum password length properties window, change the value from 0 to 9.



(6.) Click OK.

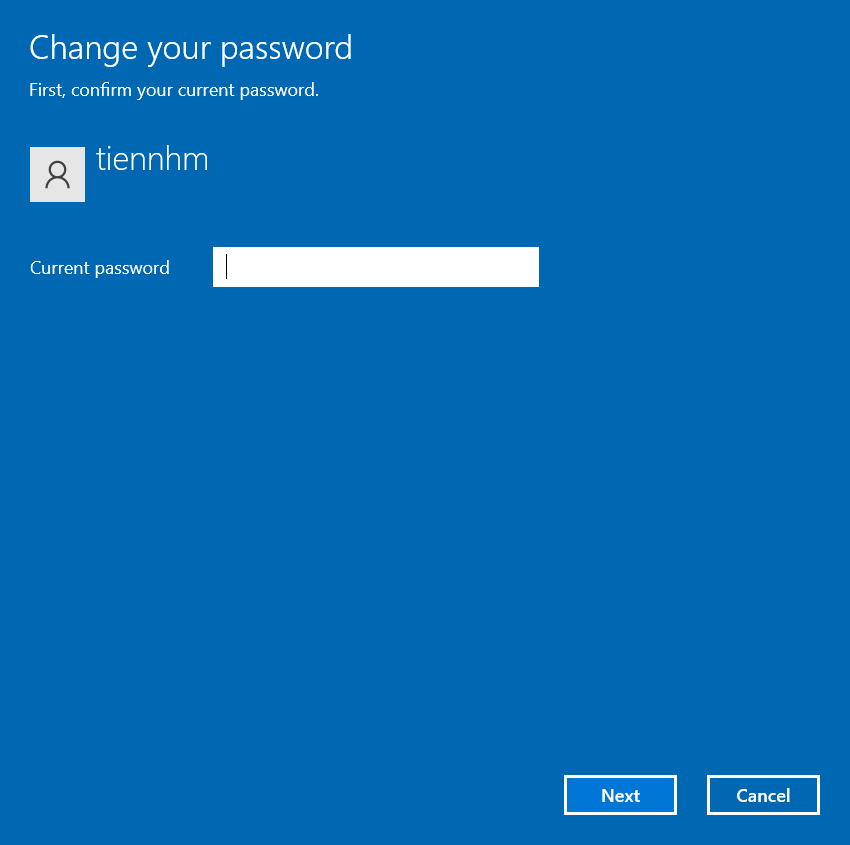
(7.) Close **ALL** windows and log off as **Admin**.

***Step Two:***

(1.) Log on as **tiennhm** (use password created in Activity 1.)

(2.) **Start 🡪 Setting 🡪** **Accounts** 🡪 **Sign-in options**

(3.) Click **Password 🡪 Change** for **tiennhm**. Sau đó nhập **Current password.**



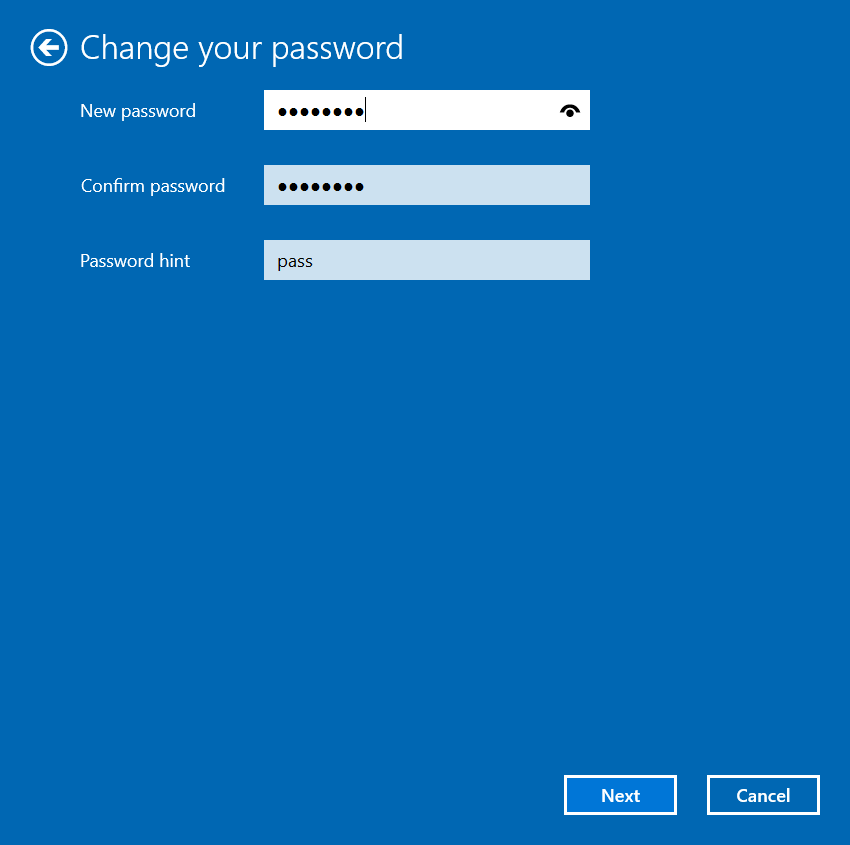
(4.) Type in the following information that's bold:

New Password: **password**

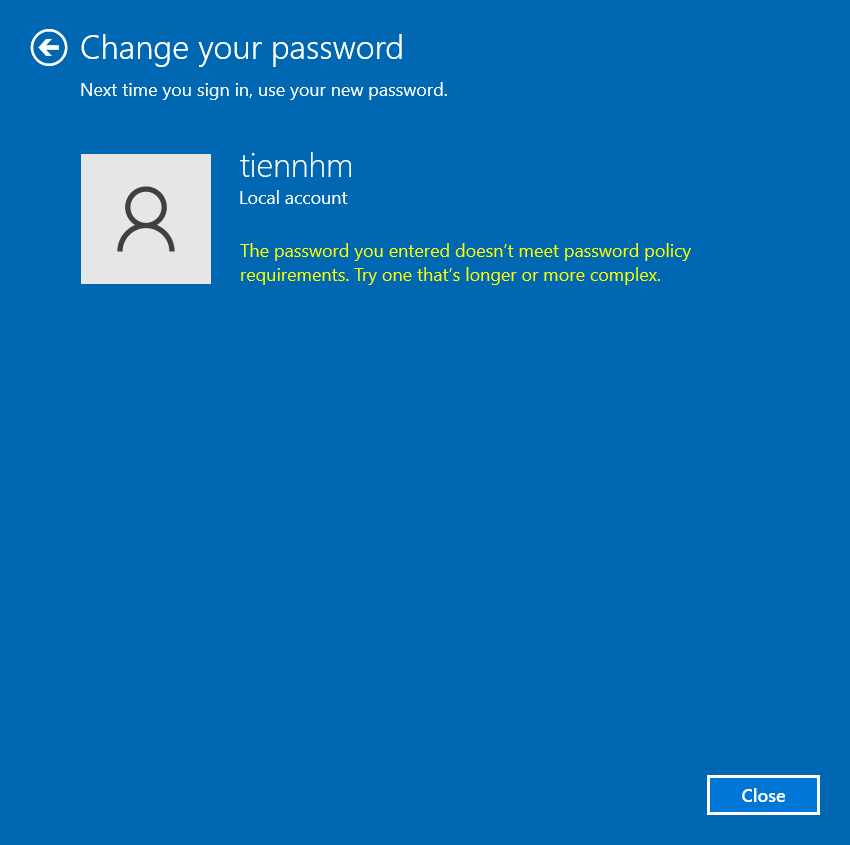
Confirm New Password: **password**

Password hint

\*\*CLICK Change Password\*\*



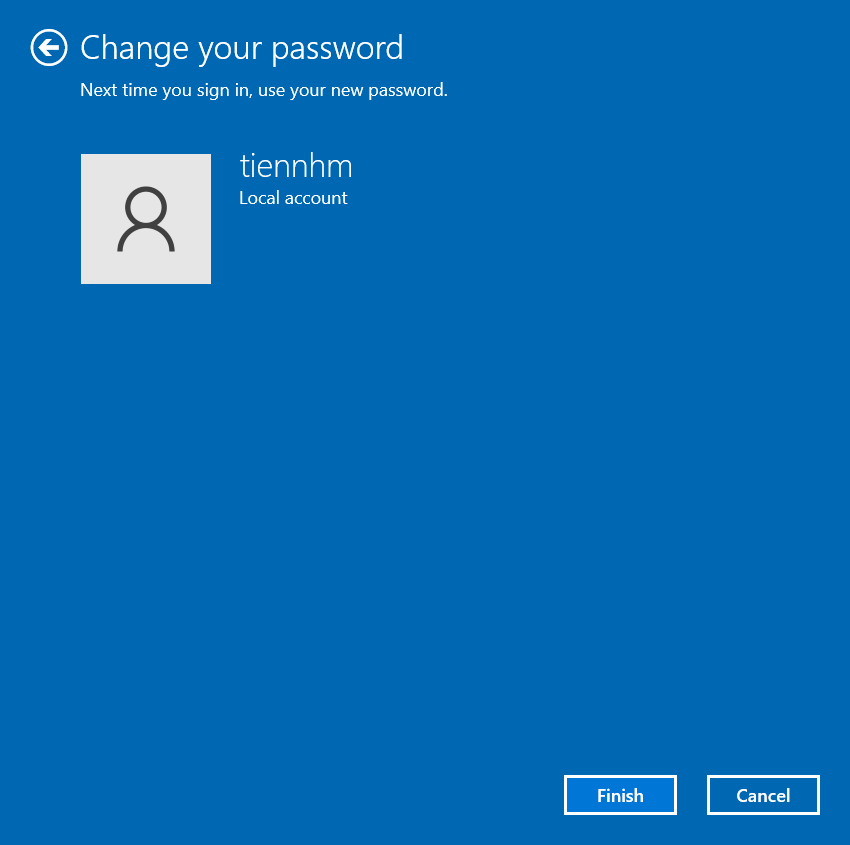
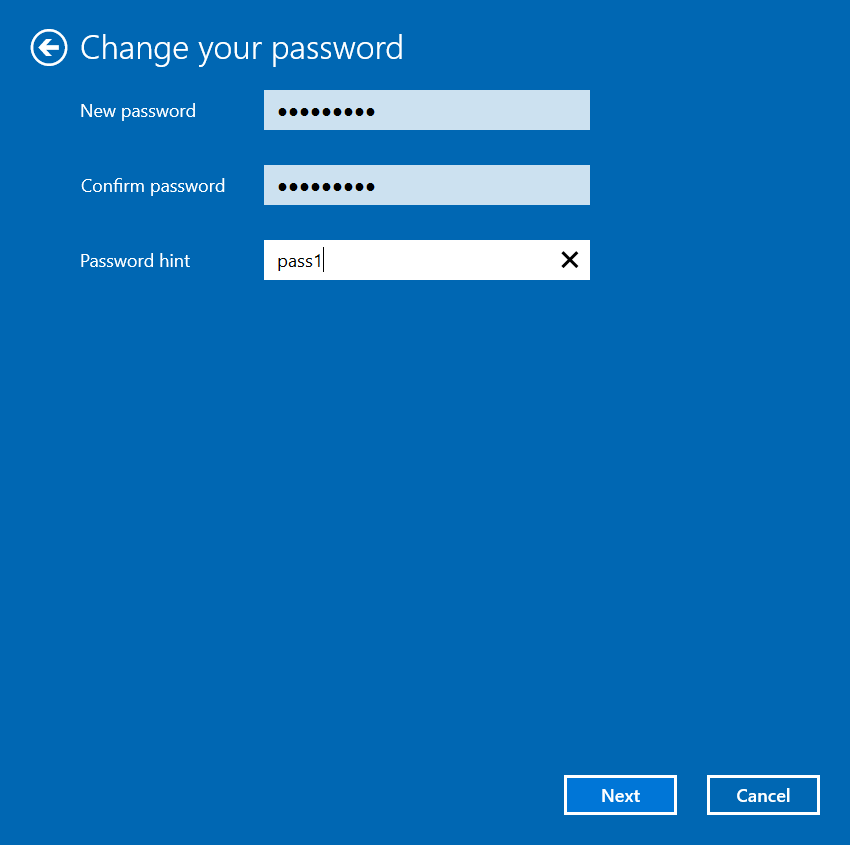
(5.) You will receive a message.



QUESTION? What is the message you received? (Write this message down.)\*

Trả lời: The password you entered doesn’t meet password policy requirements. Try one that’s longer or more complex.

(6.) Try assigning **password1** as the new password.



QUESTION? Was password1 successful?

Trả lời: Thành công

(7.) Close **ALL** windows and Log off as **user1**

* **Activity 3: (Password Policy Settings for Complexity)**

***Step One:***

(1.) Log on to the system as an **Admin** (leave password blank).

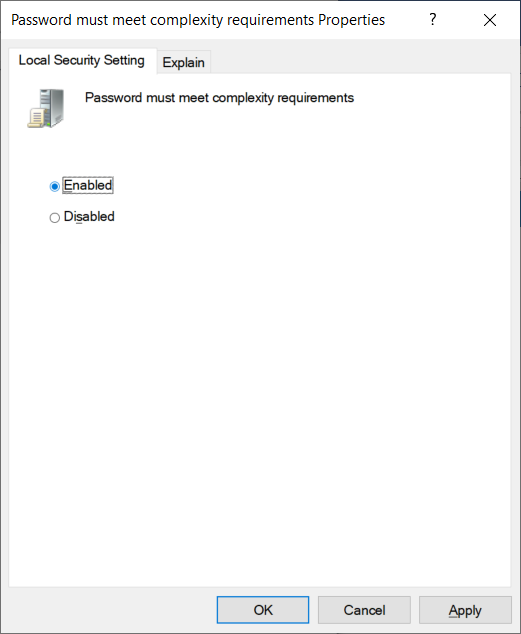
(2.) Click **Start 🡪 Control Panel 🡪 Administrative Tools 🡪 Local Security Policy**.

(3.) Expand **Account Policies** (if not already).

(4.) Click on the **Password Policy** option.

(5.) Double-click **Passwords must meet complexity requirements**.

(6.) Click the **Enable** radio button.



(7.) Click **OK**.

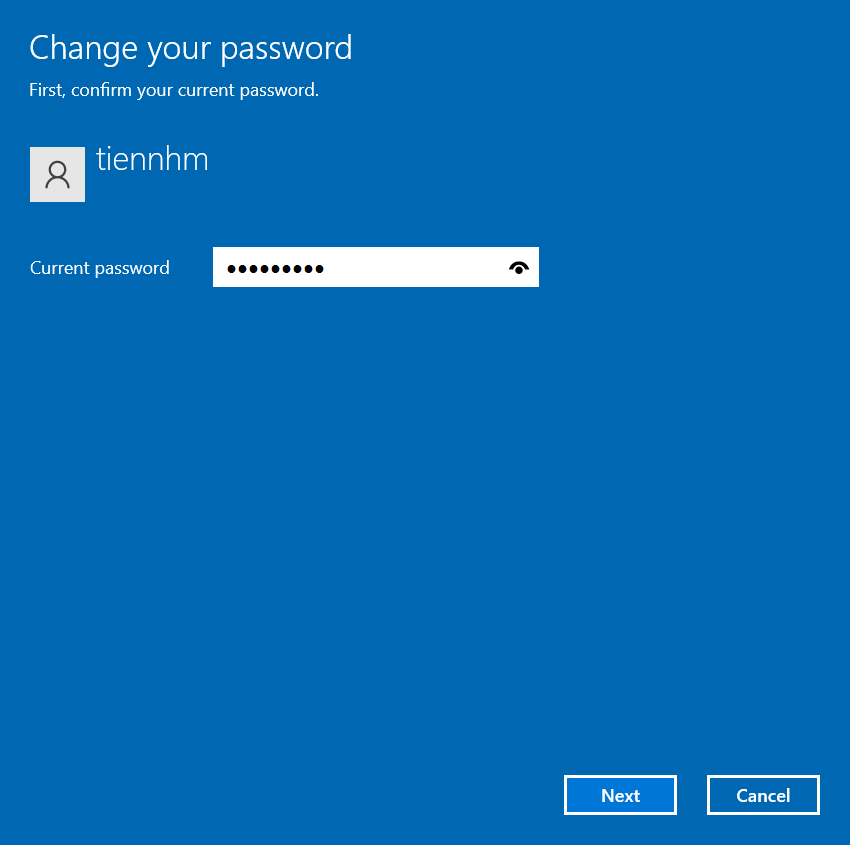
(8.) Close **ALL** windows and log off as **Admin**.

***Step Two:***

(1.) Log on as **User1** (password is set as password1.)

(2.) **Start 🡪 Setting 🡪** **Accounts** 🡪 **Sign-in options**

(3.) Click **Password 🡪 Change** for **tiennhm**. Sau đó nhập **Current password.**

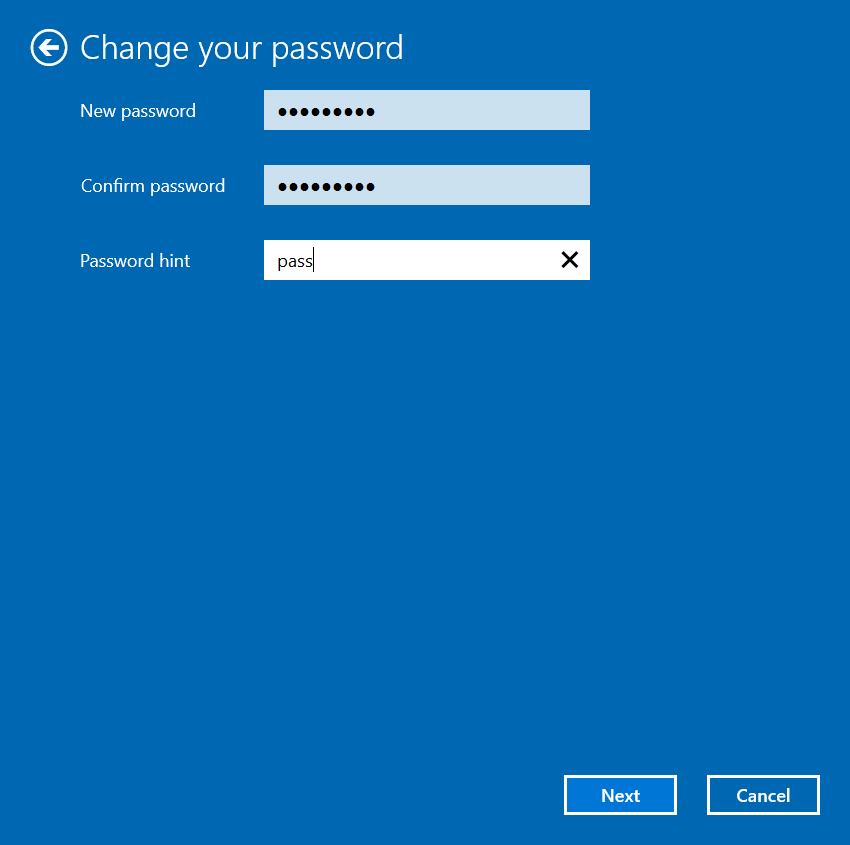


(4.) Type in the following information that is in bold:

New Password: **password**

Confirm New Password: **password**

Password hint

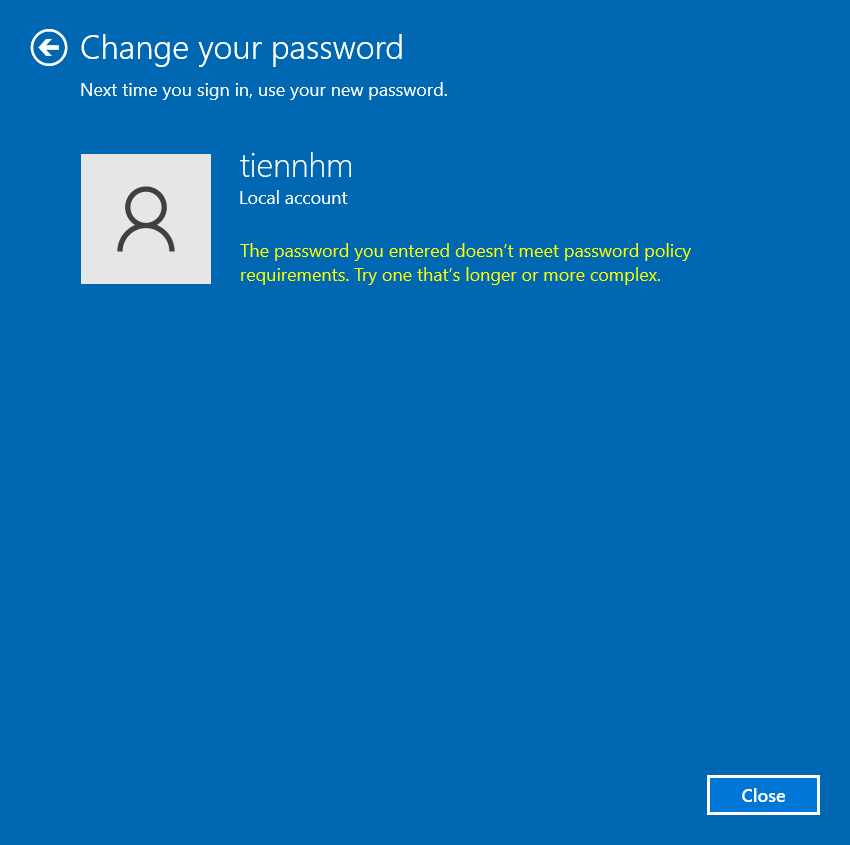


\*\*CLICK Change Password\*\*

(5.) You will receive a message.

QUESTION? What is the message you received? (Write this message down.)\*

Trả lời: The password you entered doesn’t meet password policy requirements. Try one that’s longer or more complex.



(6.) Try assigning Password1 as the new password. (Was this successful?)

Note: the old password is still password1.

(7.) Close ALL windows and log off as user1.

QUESTION? List all possible settings that can be configured for the Windows Local Password Policy. For each, define and explain why each setting is an important aspect of the Local Password Policy.

Trả lời:

* Enforce password history:
  + Keep password history: Chọn số lượng password mới được liên kết với tài khoản người dung trước khi cho thể dùng lại có thể sử dụng lại.
* Maximum password age
  + Password will expire in (x) days: thời hạn hiệu lực của mật khẩu (0 – 999 ngày)
* Minimum password age:
  + Password can be changed immediately: Thời hạn tối thiểu trước khi người dùng có thể thay đổi mật khẩu (1 – 998 days)
* Minimum password length:
  + Password must be at least x character: Số lượng kí tự tối thiểu khi người dùng đặt mật khẩu. Nếu Relax minimum password length limits là Not define hoặc Disable thì giá trị của trường này là 0 – 14, ngược lại nếu được enable thì là 0 – 128 kí tự.
* Minimum password length audit:
  + Log audit event when new passwords are shorter than x character: Dùng để xác định độ dài mật khẩu tối thiểu mà các cảnh báo kiểm tra độ dài bảo mật bắt đầu xuất hiện. (0 – 128 kí tự)
* Password must meet complexity requirements
  + Enable/Disable: Nếu chọn enable thì password phải thỏa các điều kiện:
    - Không chứa tên tài khoản của người dùng hoặc các phần tên đầy đủ của người dùng vượt quá hai ký tự liên tiếp
    - Có độ dài ít nhất sáu ký tự
    - Chứa các ký tự từ ba trong bốn danh mục sau:
      * Ký tự viết hoa tiếng Anh (A đến Z)
      * Các ký tự viết thường tiếng Anh (a đến z)
      * 10 chữ số cơ bản (0 đến 9)
      * Các ký tự không phải chữ cái (ví dụ:!, $, #,%)
    - Các yêu cầu về độ phức tạp được thực thi khi mật khẩu được thay đổi hoặc tạo.
* Relax minimum password length limits:
  + Enable/Disable: Cài đặt này kiểm soát xem có thể tăng cài đặt độ dài mật khẩu tối thiểu vượt quá giới hạn cũ 14 hay không.
    - Nếu cài đặt này là Not define, độ dài mật khẩu tối thiểu có thể được định cấu hình tối đa là 14.
    - Nếu cài đặt này là Disable, độ dài mật khẩu tối thiểu có thể được định cấu hình tối đa là 14.
    - Nếu cài đặt này là Enable, độ dài mật khẩu tối thiểu có thể được định cấu hình cao hơn 14.
* Store passwords using reversible encryption:
  + Enable/Disable: Nếu được enable, mật khẩu sẽ được hệ điều hành mã hóa (có thể đảo ngược).
* **Activity 4: (Setting an Account Lockout Policy)**

***Step One:***

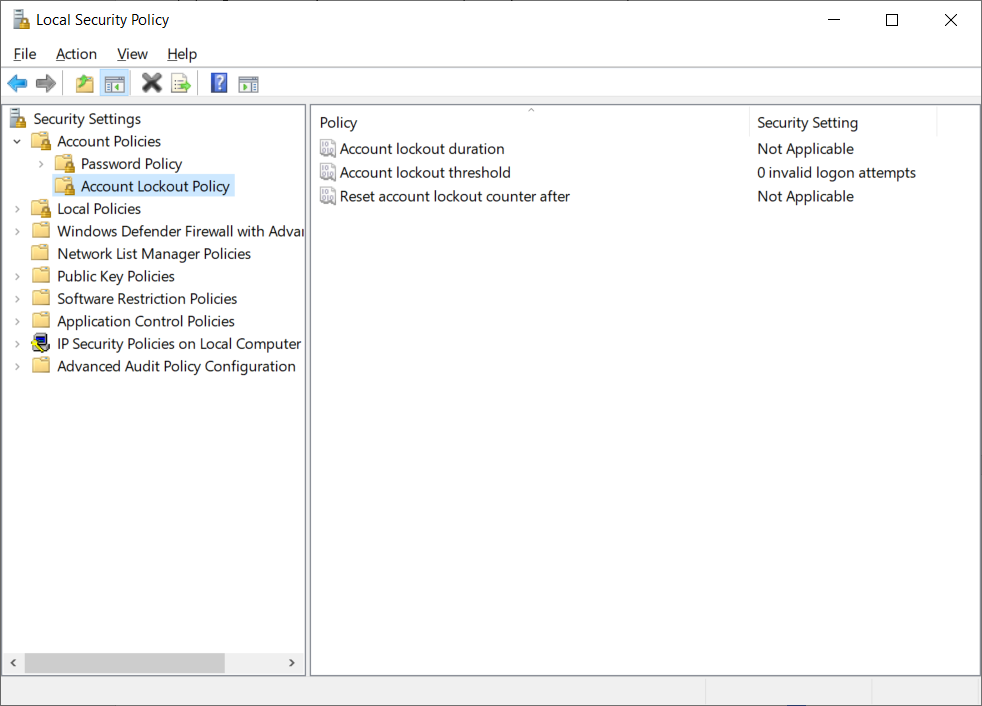
(1.) Log on to the system as an **Admin** (leave password blank).

(2.) Click **Start 🡪 Control Panel 🡪 Administrative Tools 🡪 Local Security Policy**.

(3.) Expand **Account Policies** (if not already).

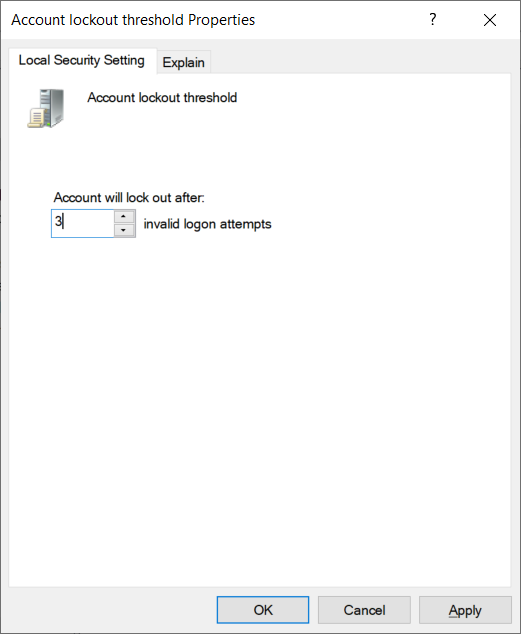
(4.) Click **Account Lockout Policy**.

\*\*IMPORTANT\*\* Make sure the value for **Account lockout threshold** is 0.



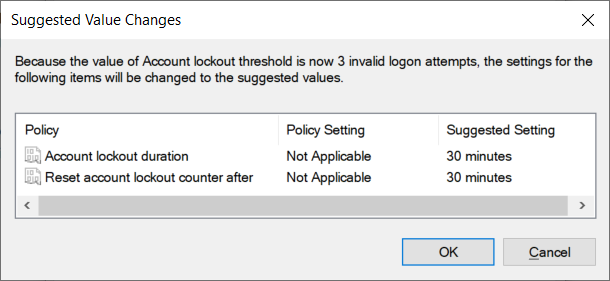
(5.) Double-click **Account lockout threshold**.

(6.) In the **Account lockout threshold properties** window, change the invalid logon attempts to **3**.



(7.) Click **OK**.

(8.) You will be prompted with the Suggested Value Changes window.



(9.) Click **OK** to accept default settings.

(10.) Close **ALL** windows and log off as **Admin**.

***Step Two:***

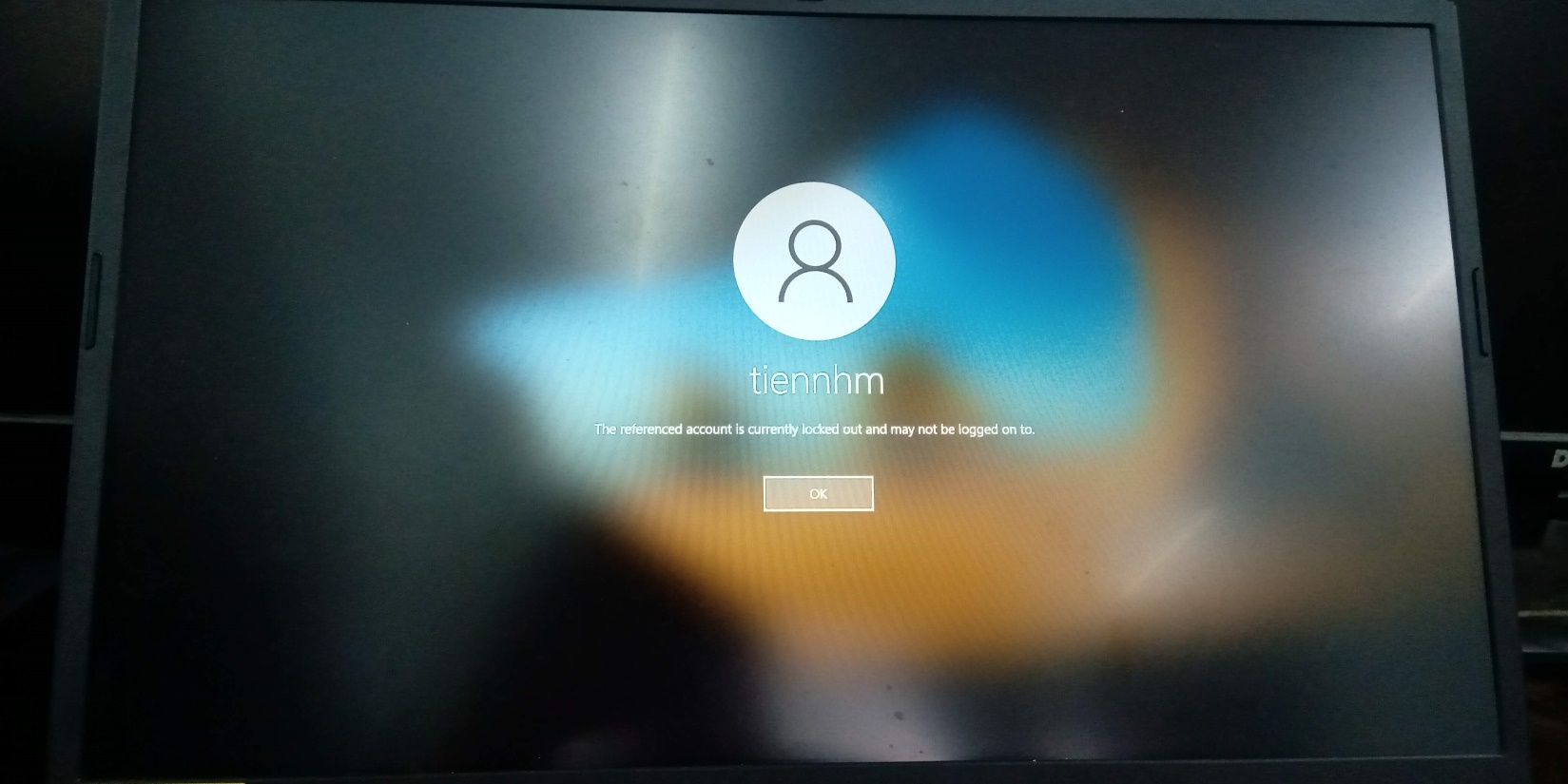
(1.) Log on as user1, OMITTING THE PASSWORD three times.

(2.) Log on a fourth time.

(3.) You will receive a message.

QUESTION? What is the message you received? (Write this message down.)\*

Trả lời: The referenced account is currently locked out and may not be logged on to.



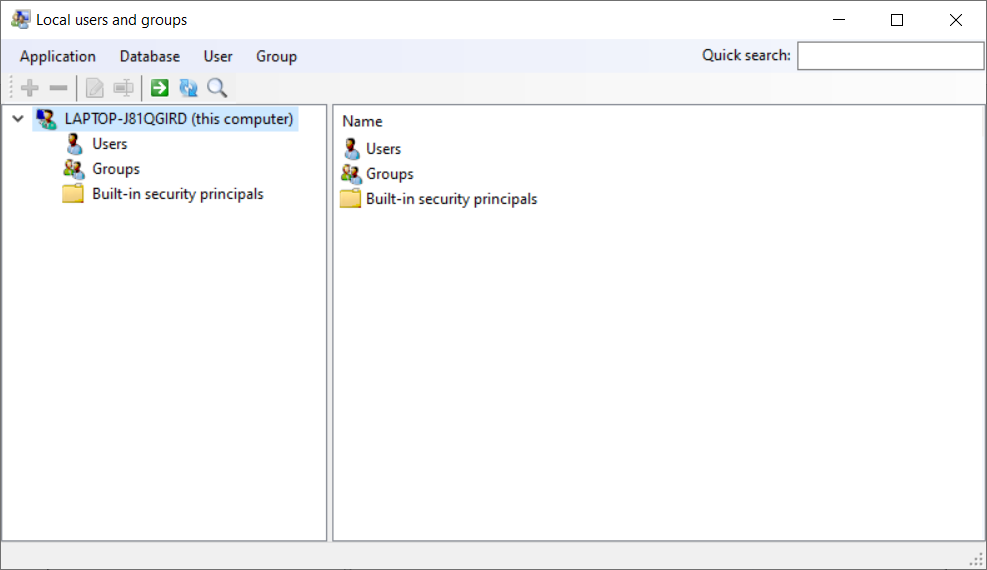
4. Click **OK**.

***Step Three: (Unlocking a user account as an Administrator.)***

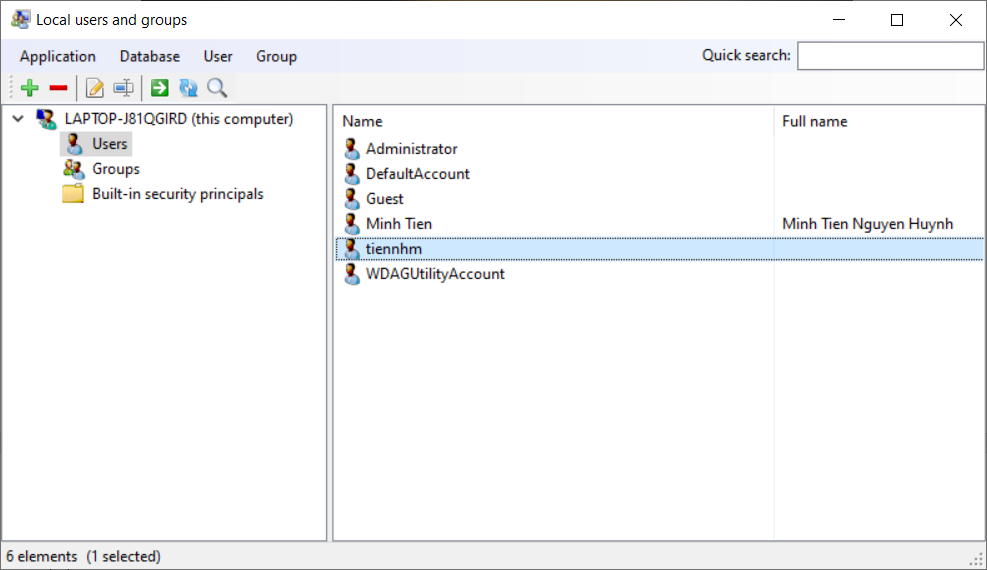
(1.) Log on to the system as an **Admin** (leave password blank).

(2.) Click **Start 🡪 Control Panel 🡪 Administrative Tools 🡪 Computer Management**.

(3.) Expand **Local Users and Groups**.

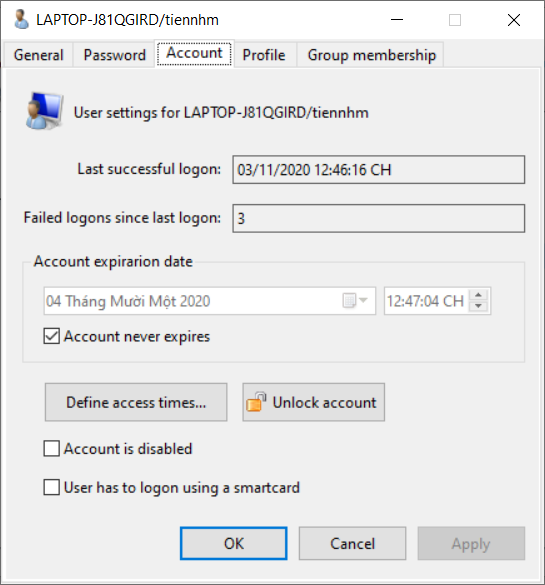


(4.) Click **Users**.



(5.) Double click on the name of the user who is locked out, **user1**.

(6.) Uncheck the option that says **Account is locked out**.



(7.) Click the **OK** button.

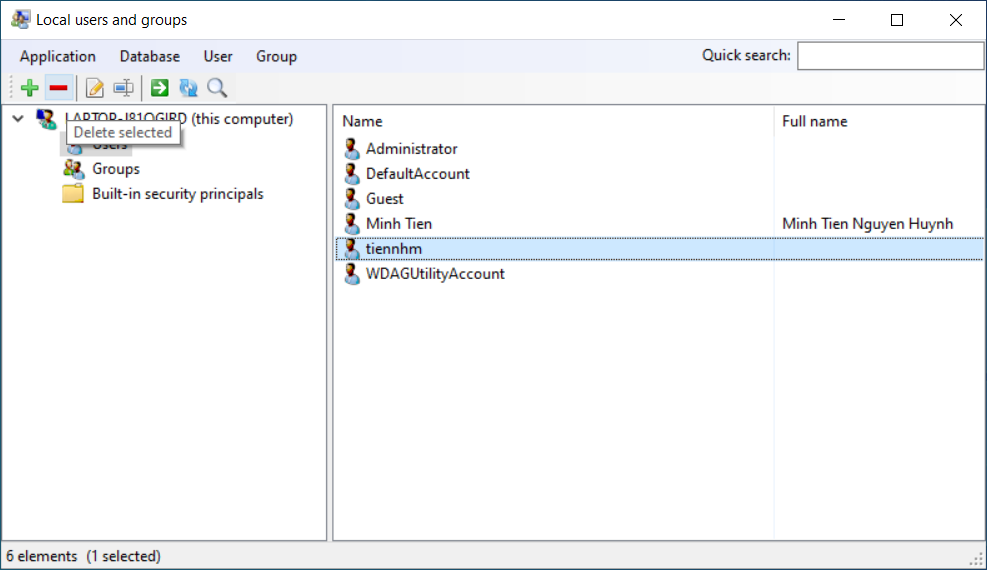
(8.) Close **ALL** open windows.

***Step Four: (Removing user1 account)***

(1.) Click **Start🡪 Control Panel 🡪 Users Accounts**

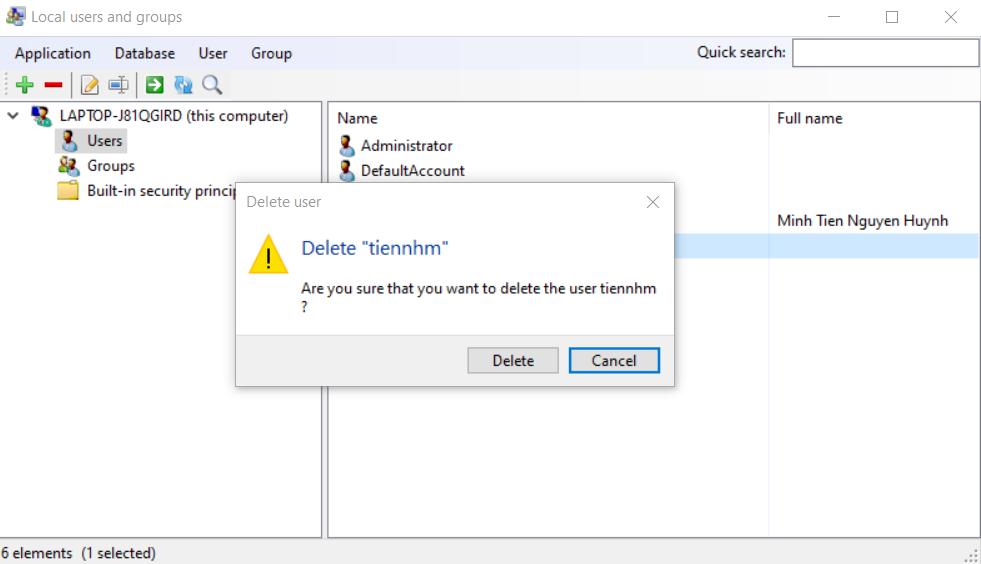
(2.) Click on **user1**.

(3.) Click the **Delete Account** button, which will remove user.



(4.) Click **Delete files**.

(5.) Click **Delete Account**.

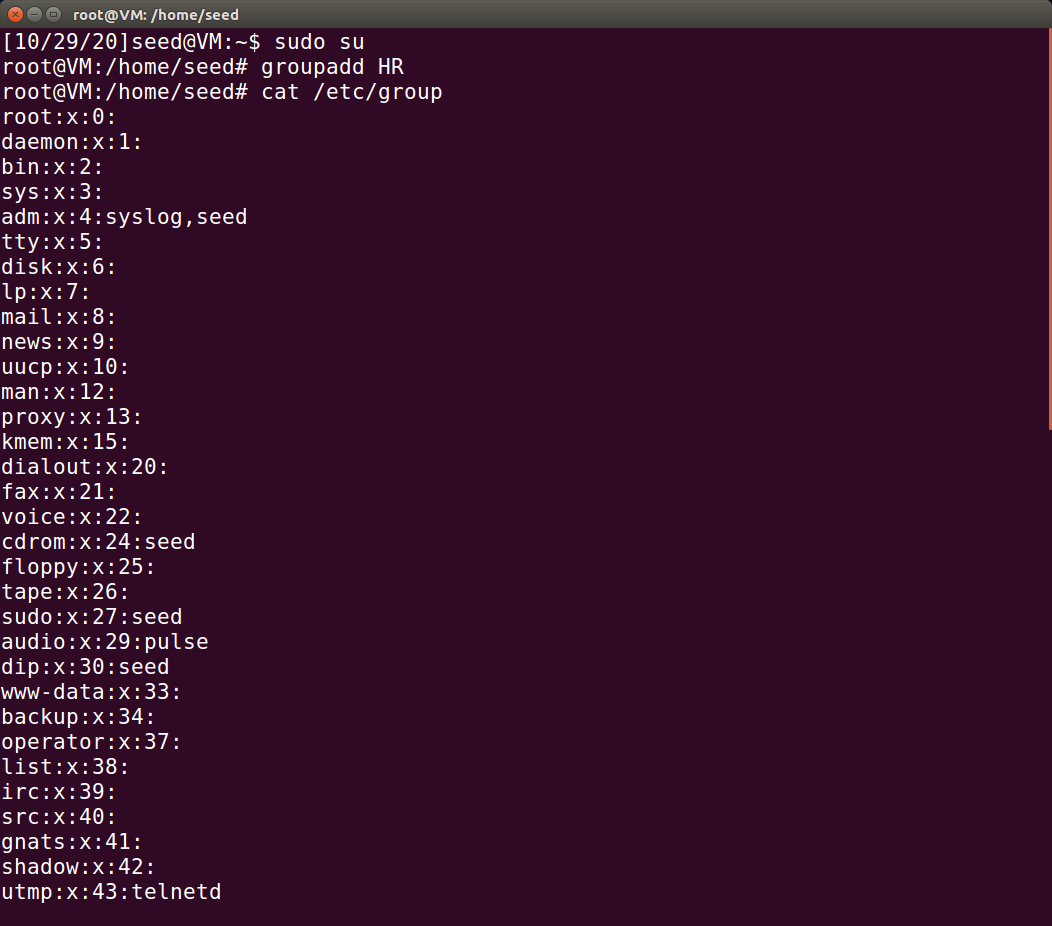


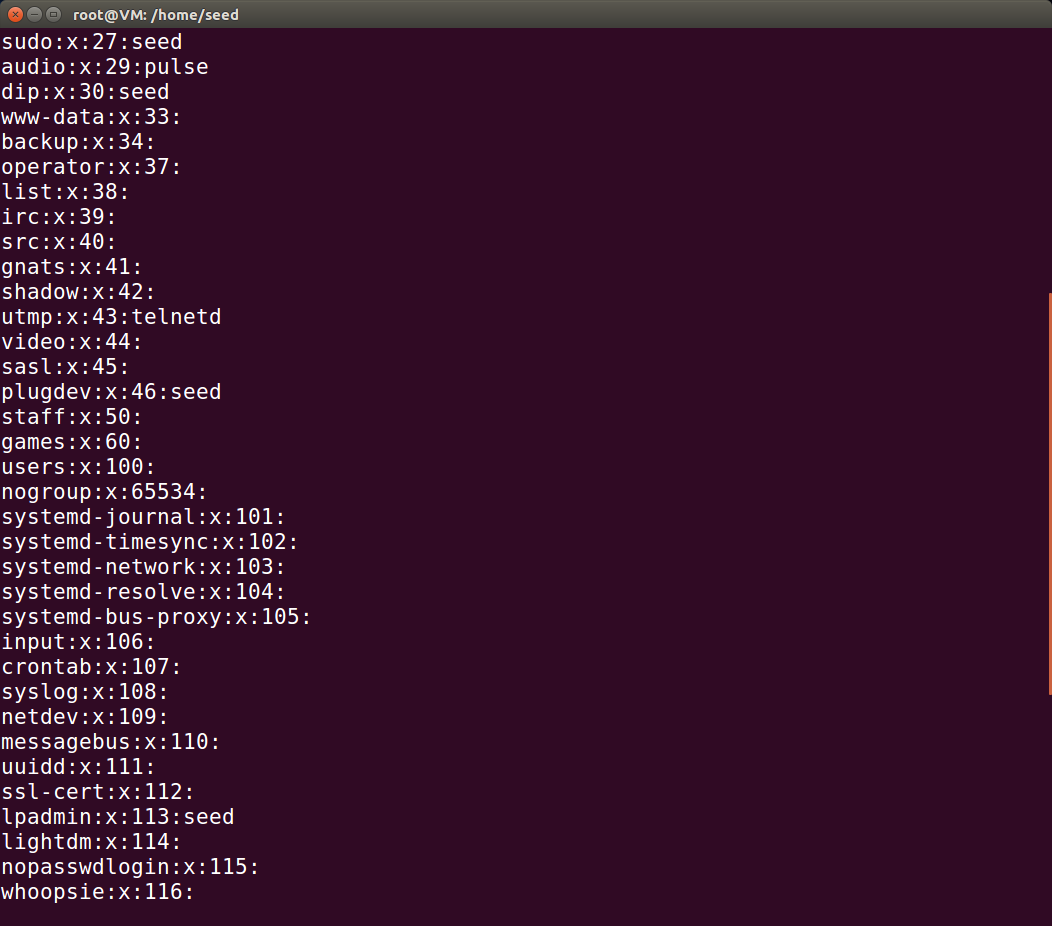
(6.) Close **ALL** windows and log off the machine.

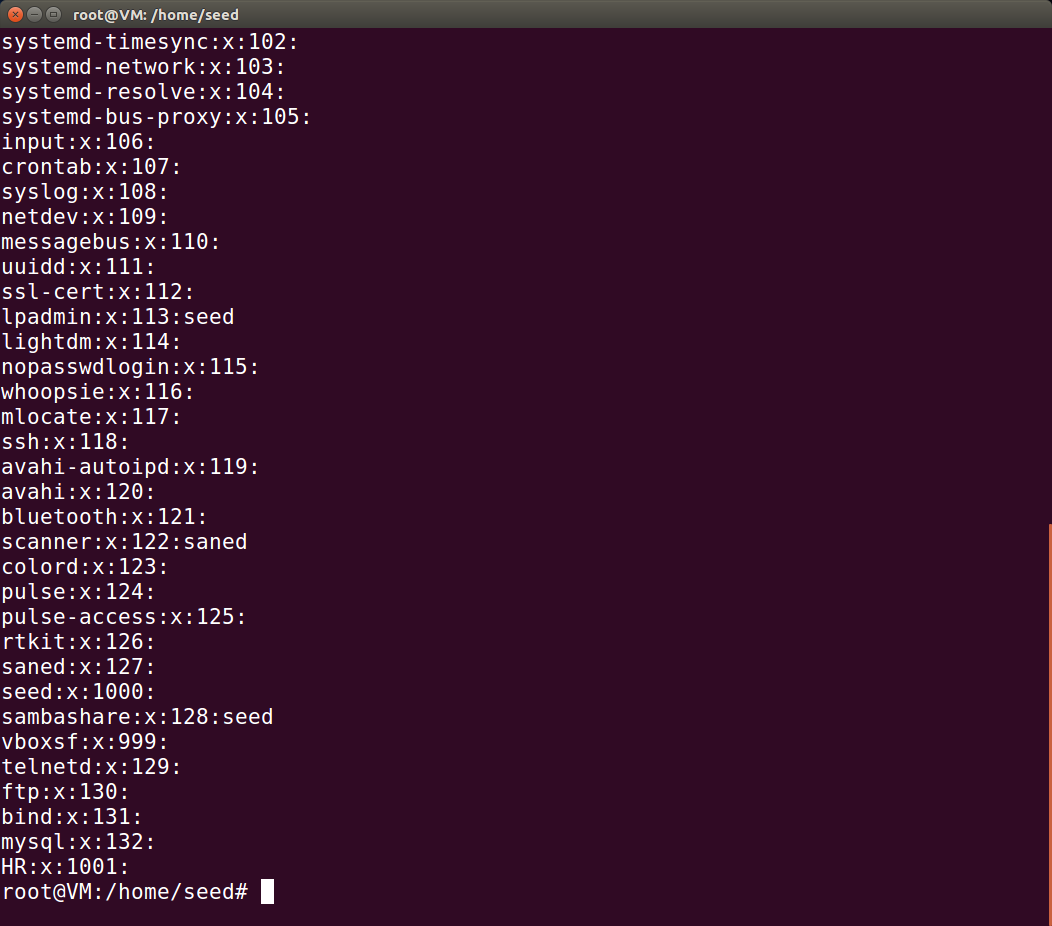
QUESTION? List all possible settings that can be configured for the Windows **Account Lockout Policy**. For each, define and explain why each setting is an important aspect of the **Account Lockout Policy**.

* Account lockout duration:
  + Account is locked out for x minutes: xác định thời gian để tài khoản chuyển từ trạng thái bị khóa sang mở khóa (với x từ 0 – 99,999, với 0 mang ý nghĩa là khóa đến khi quản trị viên mở khóa).
* Account lockout threshold:
  + Account is lock out after x invalid logon attemps: Xác định số lần được phép nhập sai mật khẩu khi đăng nhập. Nếu nhập sai quá số lần được phép thì tài khoản sẽ bị khóa. (với x từ 0 – 999, với 0 mang ý nghĩa là tài khoản sẽ không bao giờ bị khóa).
* Reset account lockout counter after:
  + X minutes: Xác định số phút tối thiểu (kể từ lần đăng nhập thất bại trước đó) để bộ đếm số lần đăng nhập không thành công đếm lại từ 0. (x từ 1 đến 99,999 phút)

**Lab 2.2. Ubuntu**

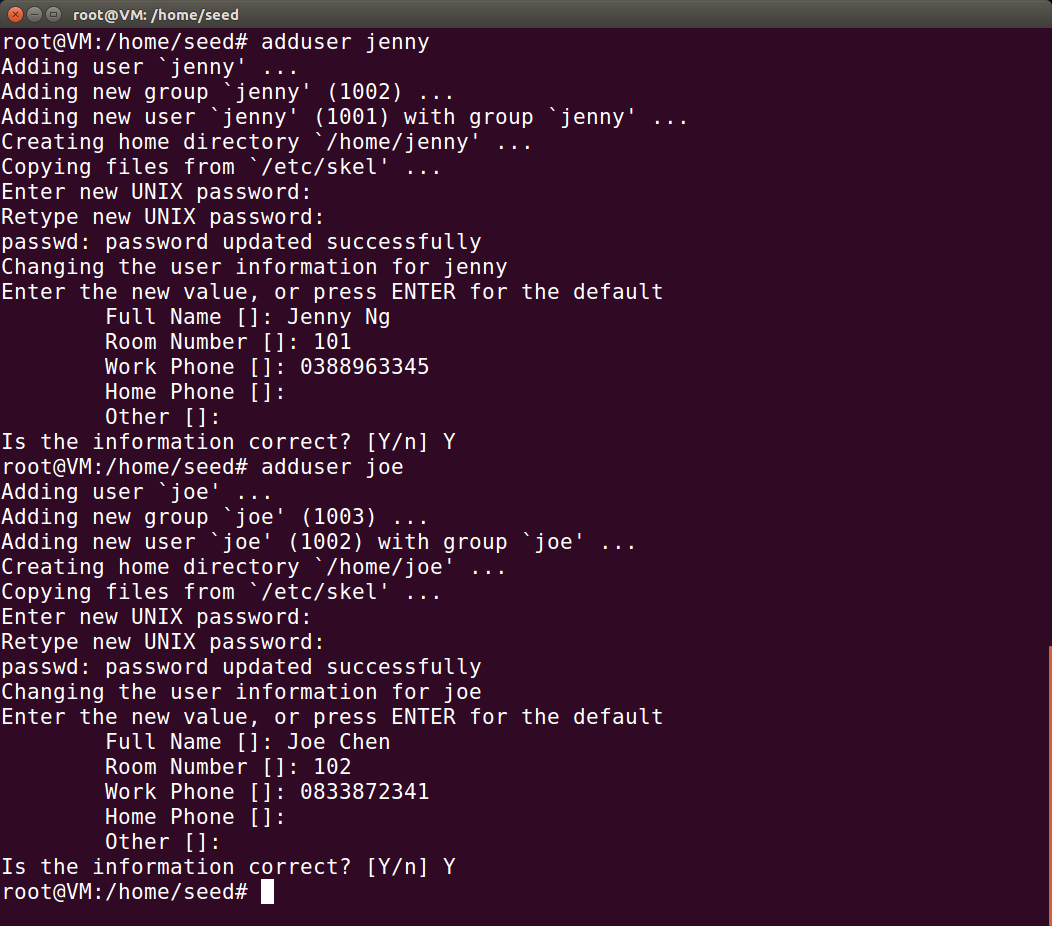




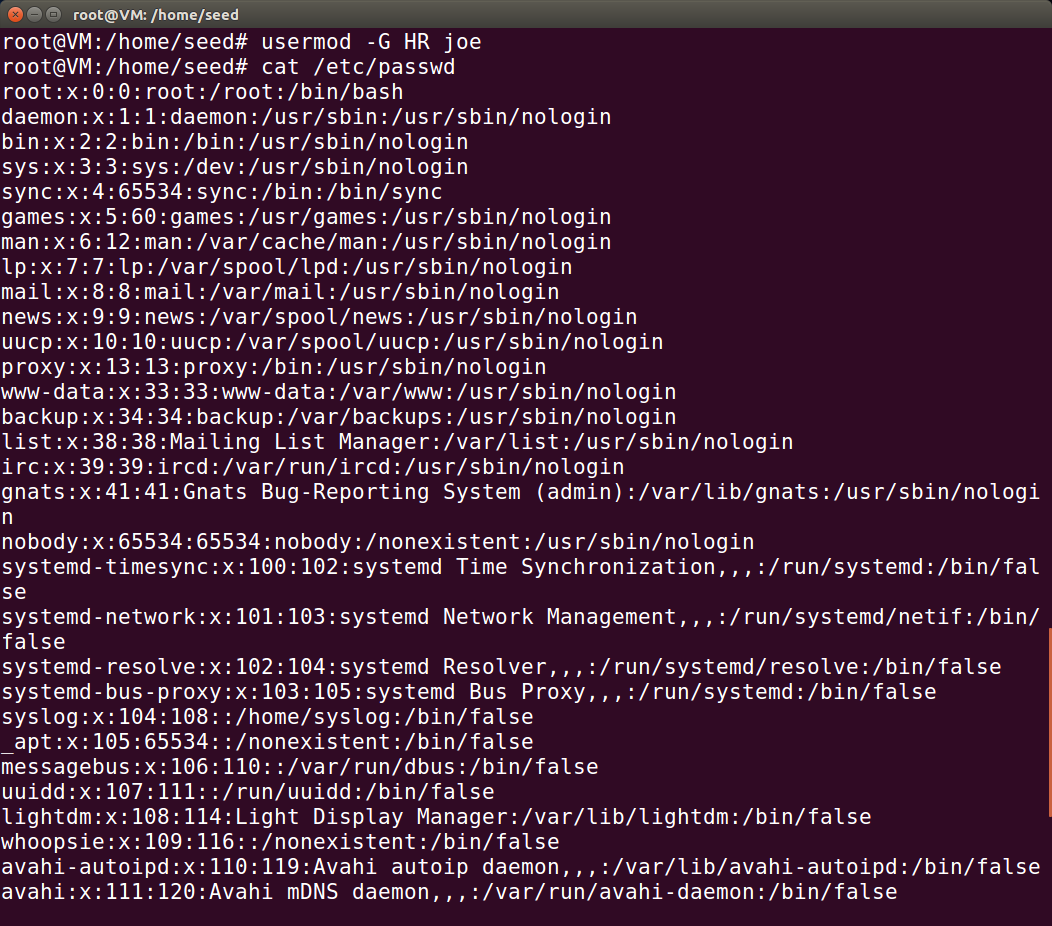


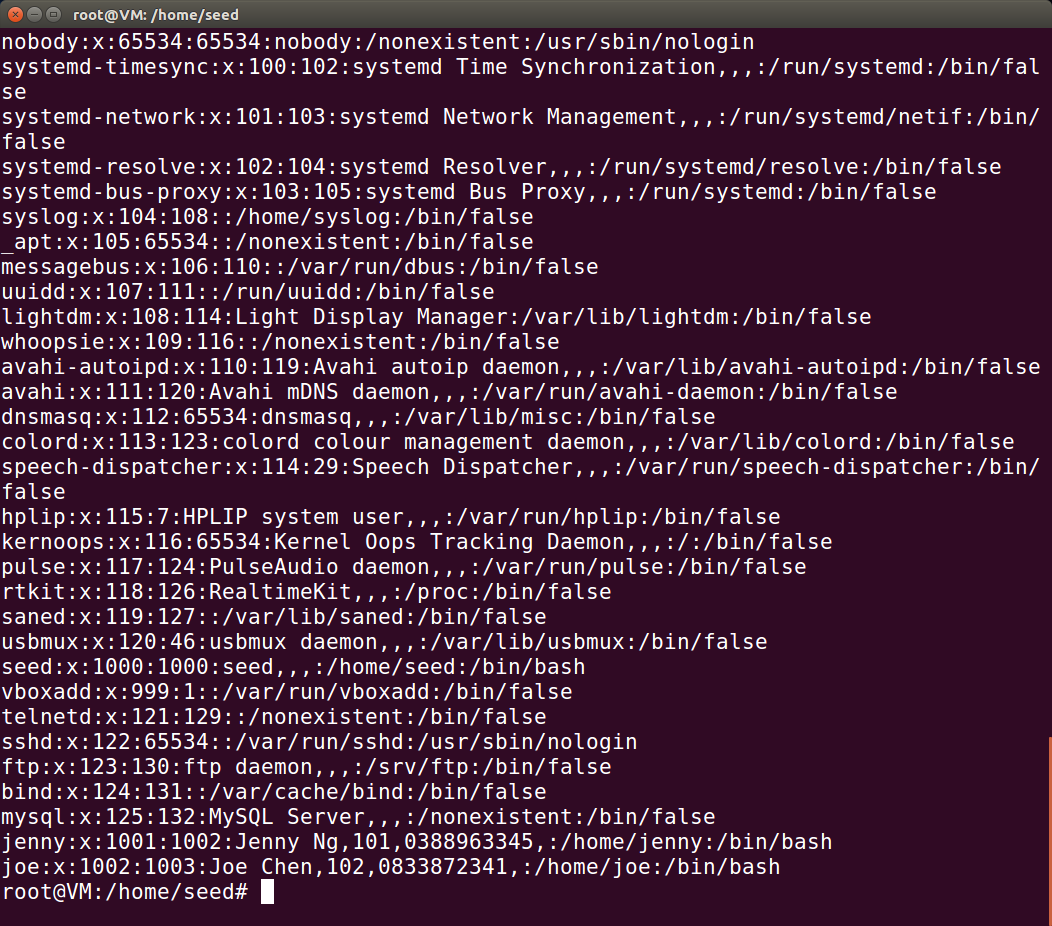
adduser jenny

adduser joe

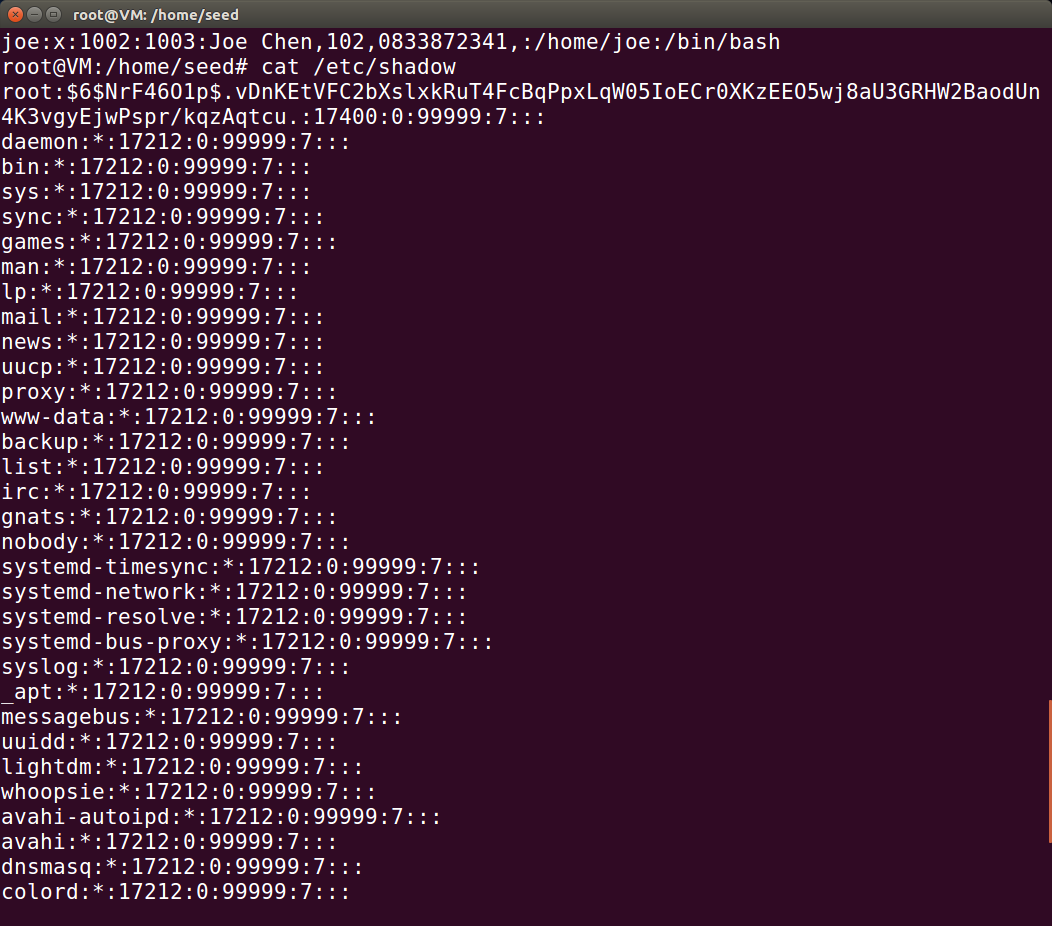


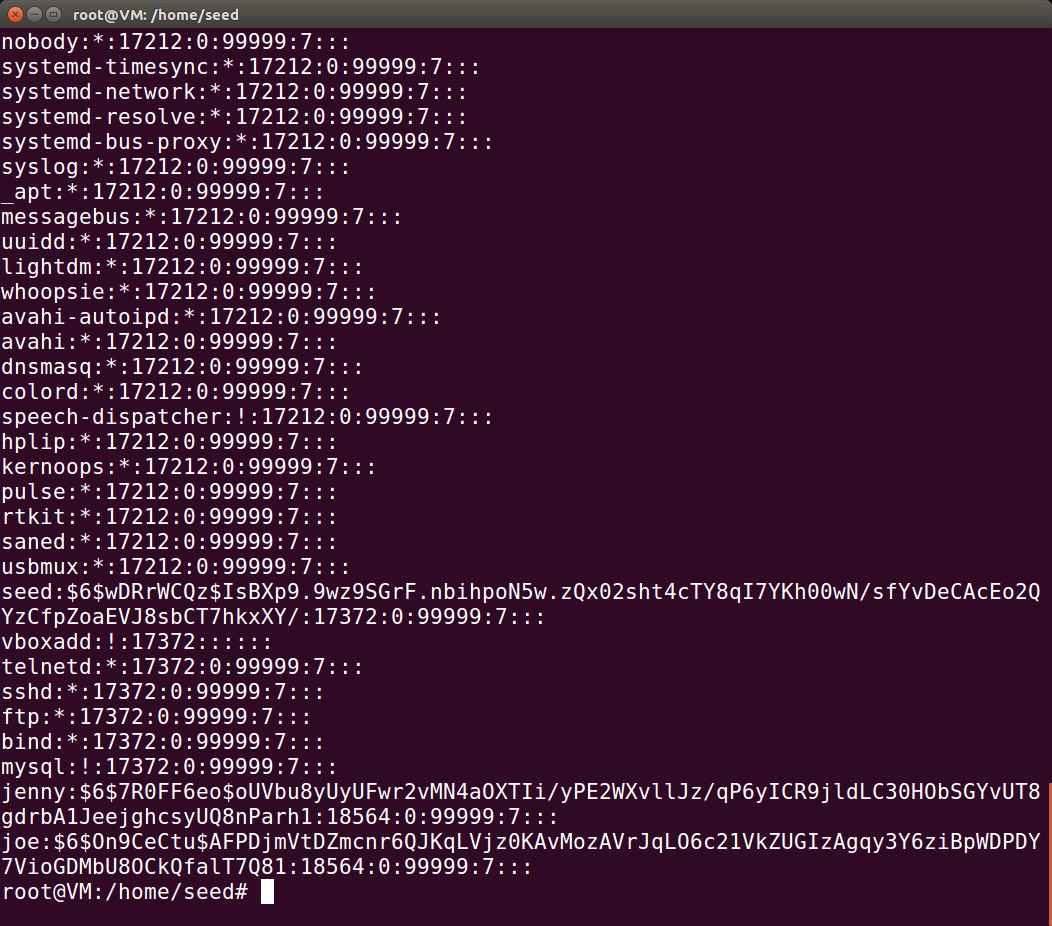
usermod -G HR joe





cat /etc/shadow



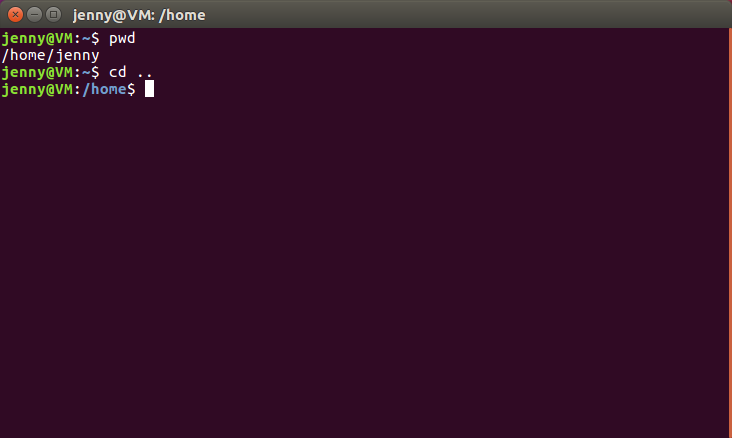


**Permissions 1:**

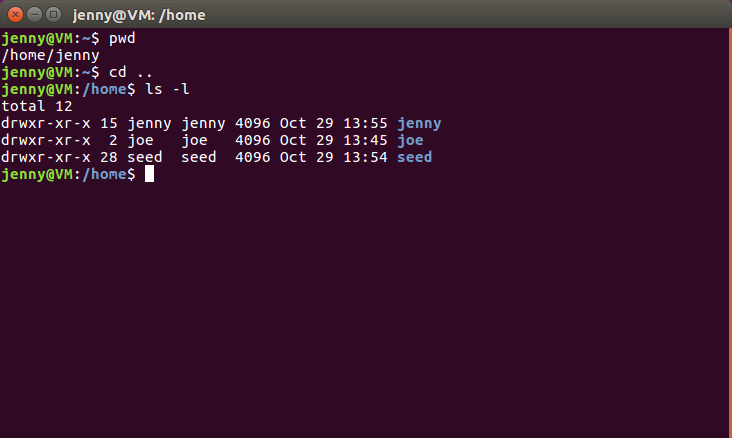
1. **Logon as jenny user**
2. View your present directory



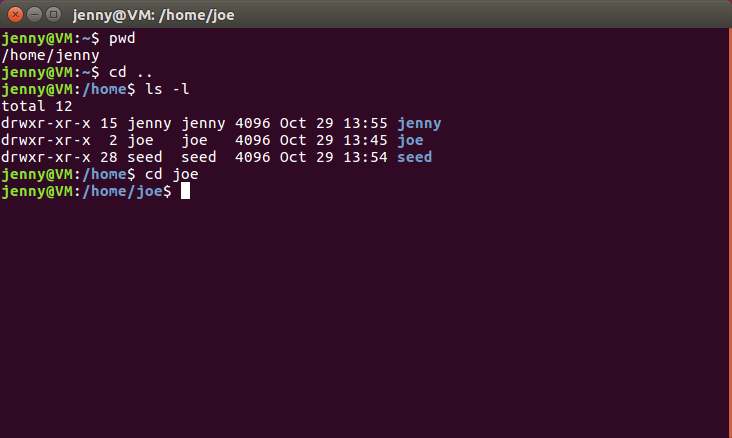
1. Go back one directory level to the /home directory



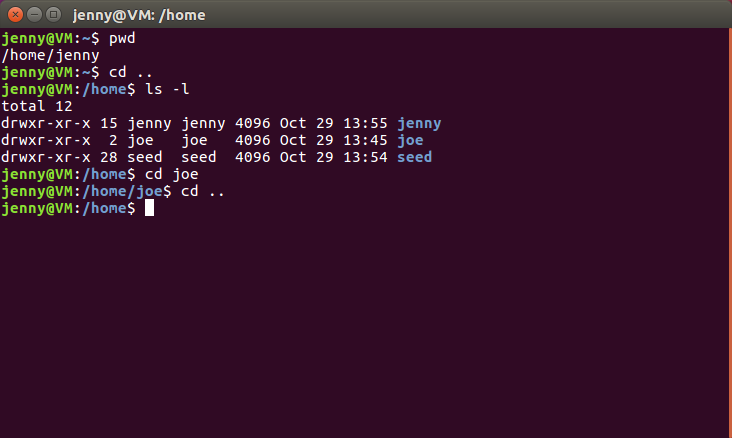
1. List all directories and their permissions.



1. Enter Joe’s folder as Jenny by typing the command below.



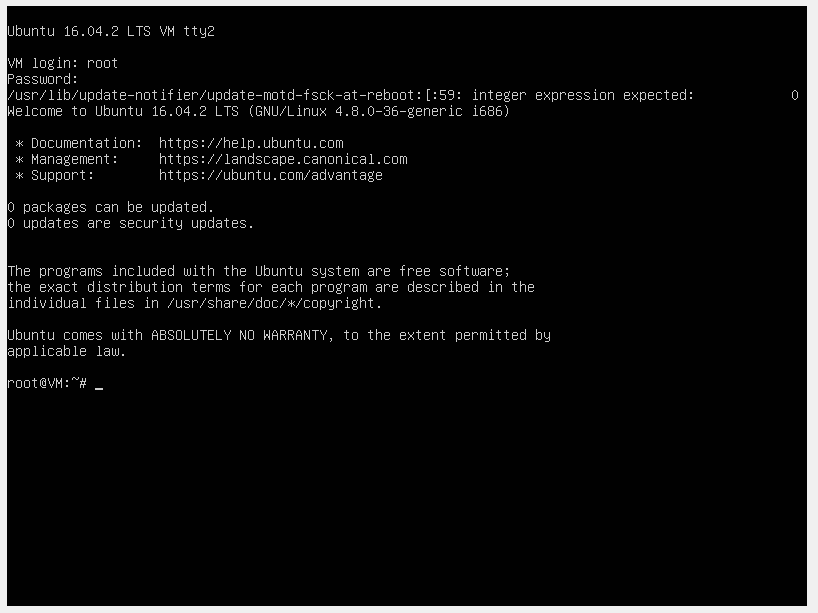
1. Change back up one directory level.



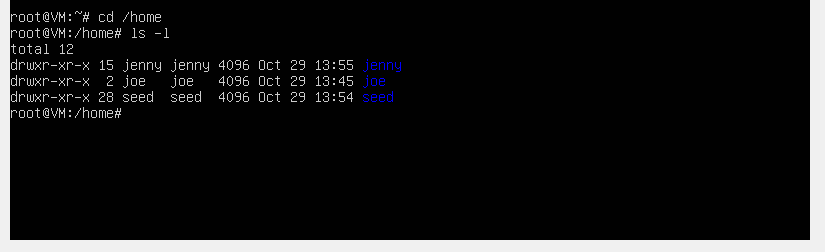
1. Press and hold CTRL+ALT+F2 to switch to another Terminal session (tty2).
2. Login as the user root

Username: root

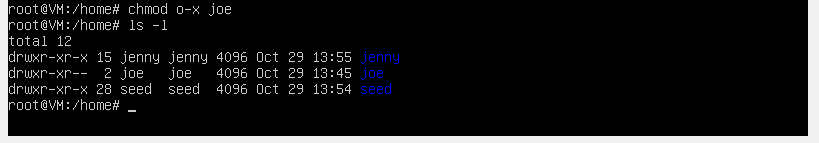
Pass: seedubuntu

****

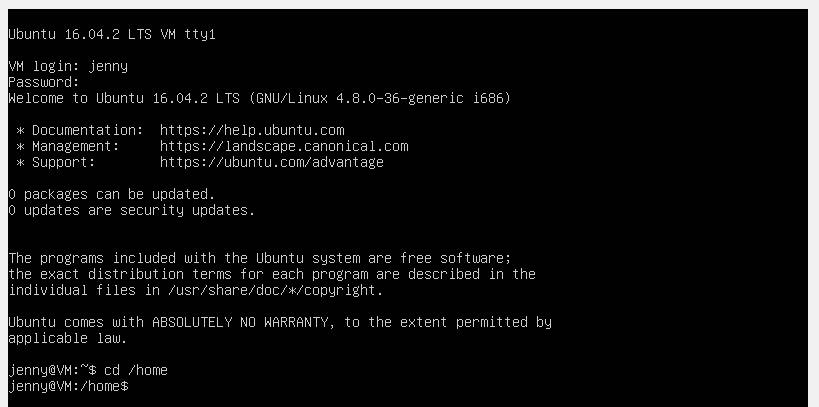
1. Change to the /home directory.
2. List all current directories with their permissions

****

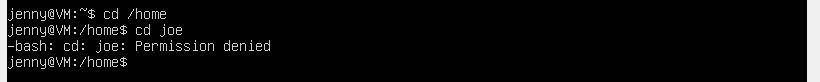
1. Change the “other” permission on joe’s folder by making it non-executable.
2. List the directories once more with their respective permissions.

****

1. Press and hold CTRL+ALT+F1 to switch back to the other Terminal session (tty1). Make sure you are viewing the following command prompt: jenny@Ubuntu:/home$.

****

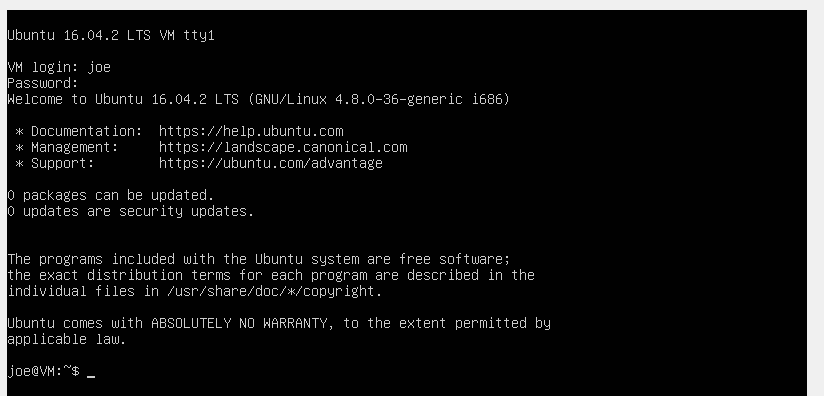
1. Now that we switched to jenny’s Terminal session, attempt to go into joe’s folder once more.

****

1. Type exit followed by pressing Enter to logout of the Terminal session.

**Permission 2:**

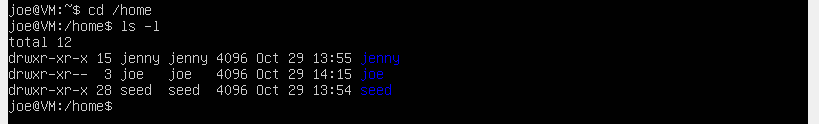
1. Login as the user joe
2. Print your current working directory

****

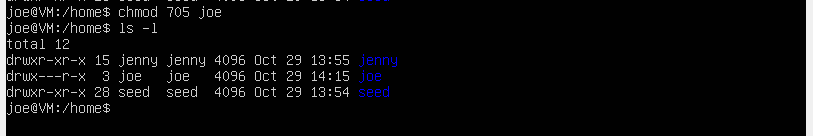
1. Go back one directory level to the /home directory.

****

1. List all directories and their permissions in the current working directory

****

1. Modify the “others” field for Joe’s folder so that others will be able read and execute but not write while still maintaining the “user” field to read, write, and execute.
2. List the file permissions of the current directory to see that the absolute changes were made.

****

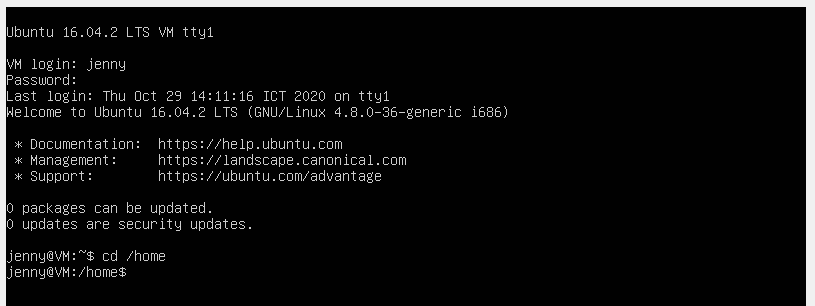
1. Change to the /home/joe directory.

****

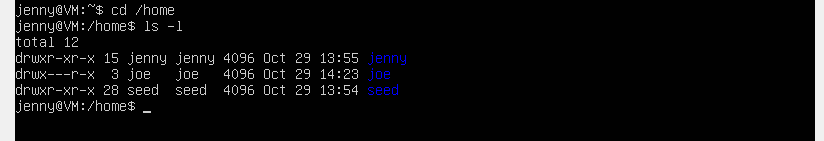
1. Create a simple text file named test.txt

****

1. Type exit followed by pressing Enter to log out of Joe’s session
2. While on the tty1 Terminal, log back in as jenny
3. Change to the /home directory.



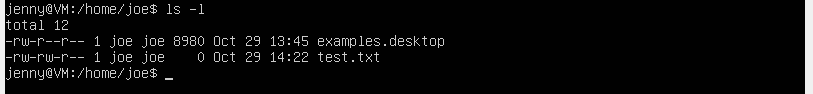
1. List all directories with their respective permissions.

****

1. Change to the /home/joe directory.

****

1. List all files in the current directory.

****

1. Attempt to create a file

****