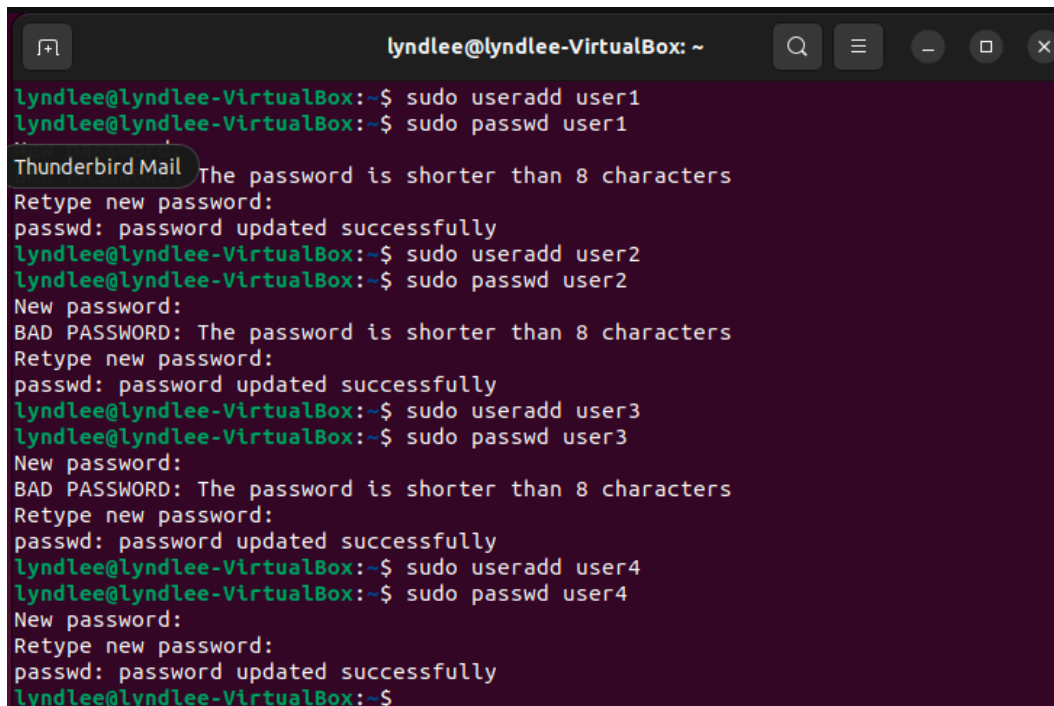


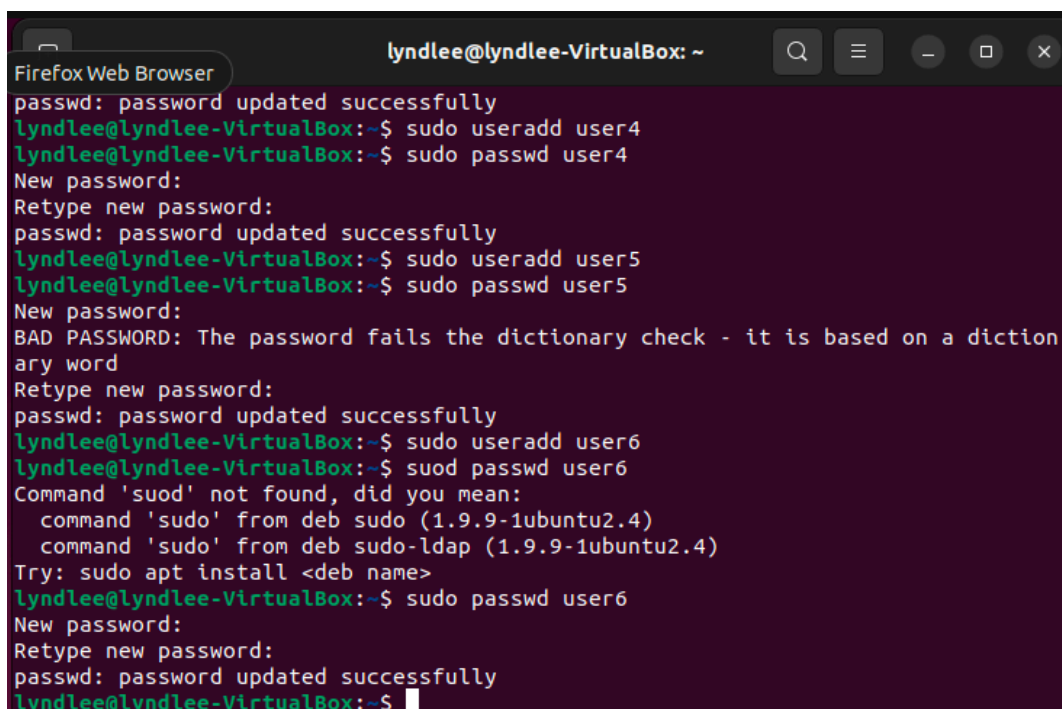
TASK A

Step 1:

A terminal window titled 'lyndlee@lyndlee-VirtualBox: ~' with standard window controls. It shows the process of creating four users (user1 through user4) using the 'sudo useradd' and 'sudo passwd' commands. For each user, a password is set, and a 'Thunderbird Mail' notification bubble appears stating 'The password is shorter than 8 characters'. The terminal output shows the password being updated successfully for each user.

```
lyndlee@lyndlee-VirtualBox:~$ sudo useradd user1
lyndlee@lyndlee-VirtualBox:~$ sudo passwd user1
Thunderbird Mail The password is shorter than 8 characters
Retype new password:
passwd: password updated successfully
lyndlee@lyndlee-VirtualBox:~$ sudo useradd user2
lyndlee@lyndlee-VirtualBox:~$ sudo passwd user2
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: password updated successfully
lyndlee@lyndlee-VirtualBox:~$ sudo useradd user3
lyndlee@lyndlee-VirtualBox:~$ sudo passwd user3
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: password updated successfully
lyndlee@lyndlee-VirtualBox:~$ sudo useradd user4
lyndlee@lyndlee-VirtualBox:~$ sudo passwd user4
New password:
Retype new password:
passwd: password updated successfully
lyndlee@lyndlee-VirtualBox:~$
```

Create 6 users in your Linux Terminal, then set the password for each user that meets the following complexity requirement respectively. You should list the passwords created for each user.

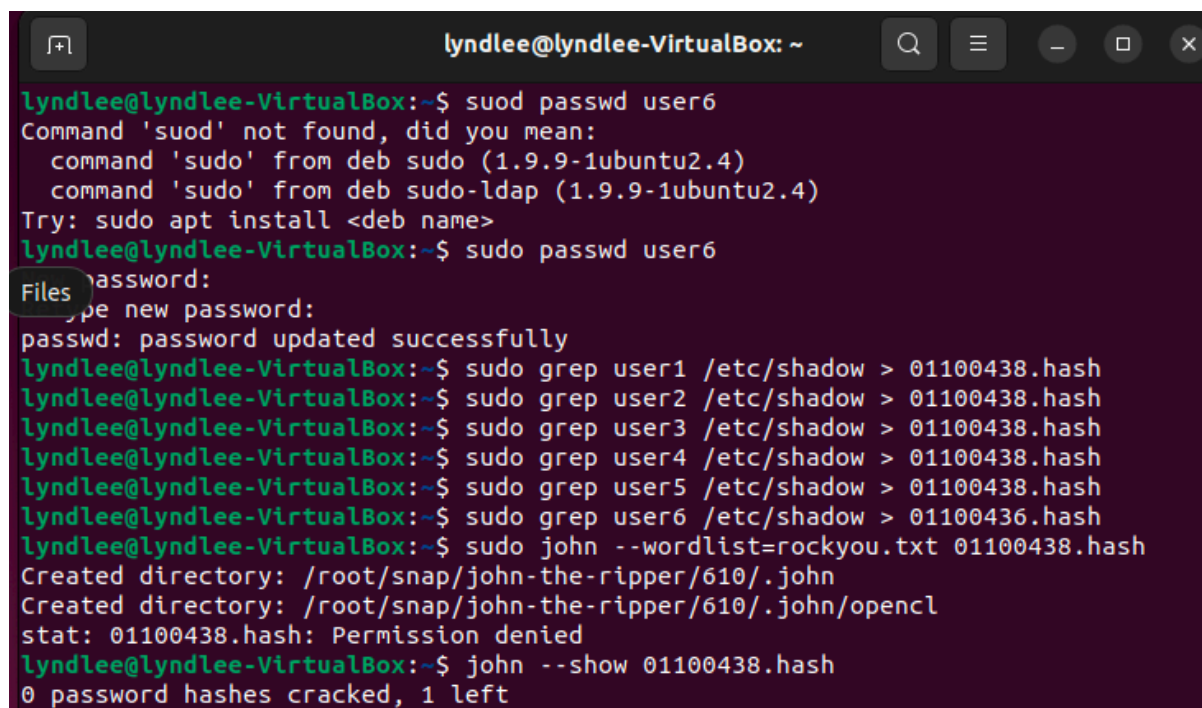
A terminal window titled 'lyndlee@lyndlee-VirtualBox: ~' with standard window controls. It shows the continuation of user creation. User 4 is created successfully. User 5 is created, but the password fails a dictionary check, leading to an error message: 'BAD PASSWORD: The password fails the dictionary check - it is based on a dictionary word'. User 6 is created, but there is a typo 'suod' instead of 'sudo' in the command, resulting in an error: 'Command 'suod' not found, did you mean: command 'sudo' from deb sudo (1.9.9-1ubuntu2.4) command 'sudo' from deb sudo-ldap (1.9.9-1ubuntu2.4)'. The terminal then shows the user being created again with the correct 'sudo' command, and the password being set successfully.

```
Firefox Web Browser
passwd: password updated successfully
lyndlee@lyndlee-VirtualBox:~$ sudo useradd user4
lyndlee@lyndlee-VirtualBox:~$ sudo passwd user4
New password:
Retype new password:
passwd: password updated successfully
lyndlee@lyndlee-VirtualBox:~$ sudo useradd user5
lyndlee@lyndlee-VirtualBox:~$ sudo passwd user5
New password:
BAD PASSWORD: The password fails the dictionary check - it is based on a dictionary word
Retype new password:
passwd: password updated successfully
lyndlee@lyndlee-VirtualBox:~$ sudo useradd user6
lyndlee@lyndlee-VirtualBox:~$ suod passwd user6
Command 'suod' not found, did you mean:
  command 'sudo' from deb sudo (1.9.9-1ubuntu2.4)
  command 'sudo' from deb sudo-ldap (1.9.9-1ubuntu2.4)
Try: sudo apt install <deb name>
lyndlee@lyndlee-VirtualBox:~$ sudo passwd user6
New password:
Retype new password:
passwd: password updated successfully
lyndlee@lyndlee-VirtualBox:~$
```

```
lyndlee@lyndlee-VirtualBox:~$ sudo tail /etc/shadow
[sudo] password for lyndlee:
Files *:19576:0:99999:7:::
*:19576:0:99999:7:::
lyndlee:$y$j9T$aQHK7nwBuLPRR/a4VGHpq1$DxMrjUAQt9c4QRstUbLCsPHWUzN4WE4C5kpIj87Zc3
9:19650:0:99999:7:::
vboxadd!:19650:0:99999:7:::
user1:$y$j9T$1l7HajLSgXyKxjbwOMLcZ/$g2V4ZTlypVumXdKy5iYABYlB9zgGGT8NjZD24lcQc.0:
19669:0:99999:7:::
user2:$y$j9T$W/jMe9GqmsrLo/rgIVBBg0$15gFFNGmoHB812dRZ4JU3MW7IKkIrEIs9vyXqFkZ8nA:
19669:0:99999:7:::
user3:$y$j9T$JvPl1r8LSDbzWSnzTZPE./$OSTp8wC2vD0mWPcdDVJzSYnP7Pjb12oxf2XR95CIE53:
19669:0:99999:7:::
user4:$y$j9T$jAA0Fhj9kWe04TuxDAC00$5LY4Ms7ynBdkDwWsCCTdRqNwsHtwl.gxEq75JTexQQD:
19669:0:99999:7:::
user5:$y$j9T$HDIffpRtAYx4UnQpY8fv10$xBzFm6P4wD9i0HVBihBLd8rFGJqy0GC1x3F8jnPla/:
19669:0:99999:7:::
user6:$y$j9T$wwiUkj9uPG/MXpVuU1XmN/$eKtnX80m53a4lN9JY4jm40s6uP0I8s32cE24lC8UgE/:
19669:0:99999:7:::
lyndlee@lyndlee-VirtualBox:~$
```

Part 3

Step 2 and 3:

A terminal window titled 'lyndlee@lyndlee-VirtualBox: ~' with standard window controls. The terminal shows a sequence of commands: 'suod passwd user6' (misspelled), 'sudo passwd user6' (corrected), and a series of 'grep' commands to extract password hashes for users 1 through 6 from the /etc/shadow file. The hashes for users 1-5 are '01100438.hash' and for user 6 is '01100436.hash'. Then, 'john --wordlist=rockyou.txt 01100438.hash' is run, creating a directory for John the Ripper. Finally, 'john --show 01100438.hash' is run, resulting in '0 password hashes cracked, 1 left'.

```
lyndlee@lyndlee-VirtualBox:~$ suod passwd user6
Command 'suod' not found, did you mean:
  command 'sudo' from deb sudo (1.9.9-1ubuntu2.4)
  command 'sudo' from deb sudo-ldap (1.9.9-1ubuntu2.4)
Try: sudo apt install <deb name>
lyndlee@lyndlee-VirtualBox:~$ sudo passwd user6
password:
Type new password:
passwd: password updated successfully
lyndlee@lyndlee-VirtualBox:~$ sudo grep user1 /etc/shadow > 01100438.hash
lyndlee@lyndlee-VirtualBox:~$ sudo grep user2 /etc/shadow > 01100438.hash
lyndlee@lyndlee-VirtualBox:~$ sudo grep user3 /etc/shadow > 01100438.hash
lyndlee@lyndlee-VirtualBox:~$ sudo grep user4 /etc/shadow > 01100438.hash
lyndlee@lyndlee-VirtualBox:~$ sudo grep user5 /etc/shadow > 01100438.hash
lyndlee@lyndlee-VirtualBox:~$ sudo grep user6 /etc/shadow > 01100436.hash
lyndlee@lyndlee-VirtualBox:~$ sudo john --wordlist=rockyou.txt 01100438.hash
Created directory: /root/snap/john-the-ripper/610/.john
Created directory: /root/snap/john-the-ripper/610/.john/openc1
stat: 01100438.hash: Permission denied
lyndlee@lyndlee-VirtualBox:~$ john --show 01100438.hash
0 password hashes cracked, 1 left
```

Export above users' hashes into a file named xxx.hash (replace xxx with your MIDAS) and use John the Ripper tool to crack their passwords in wordlist mode (use rockyou.txt).

Keep your john the ripper cracking for 10 minutes. How many passwords have been successfully cracked?

