

Access Control Notes:

3. Set Up Password-less Logins for Pam Beesly, Kelly Kapoor, and Andy Bernard from Machine E to Machine C:

First, log into Machine E. Generate SSH keys by running the command `ssh-keygen -t rsa`. Next, copy the SSH keys to Machine C using the command `ssh-copy-id pbeesly@100.64.28.3` (replace with Machine C's IP address). Repeat this process for Kelly Kapoor and Andy Bernard.

To verify the password-less login, log in as any user on Machine E and test the password-less login for each user by attempting to SSH into Machine C using the command: `ssh pbeesly@100.64.28.3`. Do the same for Kelly Kapoor and Andy Bernard.

4. Allow Dwight Schrute to Run Any Command via Sudo on Any Machine Using a Method Other Than Adding Him to the Sudo or Wheel Group:

First, log into any machine and create a custom sudoers file with the command:

```
sudo touch /etc/sudoers.d/dschrute
```

After that, edit the custom file by executing:

```
sudo visudo -f /etc/sudoers.d/dschrute
```

In the editor, add the following line:

```
dschrute ALL=(ALL) NOPASSWD: ALL
```

Save and exit the editor.

To test the configuration, log in as Dwight Schrute and run a command using sudo, such as:

```
sudo ls /root
```

It should execute without prompting for a password. Repeat these steps on all machines.

5. Allow Michael Scott to Shut Down Any of the DMZ Machines (B, C, D, F) with a Minimum of Two Hours' Notice and the Ability to Cancel the Shutdown:

Start by logging into each DMZ machine (B, C, D, and F). Use the following command to create a custom sudoers file for Michael Scott:

```
sudo touch /etc/sudoers.d/michael
```

Open the custom file with visudo to ensure that the syntax is checked:

```
sudo visudo -f /etc/sudoers.d/michael
```

In the editor, add the following line to allow Michael Scott to use the shutdown command without a password:

```
michael_scott ALL=(ALL) NOPASSWD: /sbin/shutdown -h +[2-9][0-9][0-9], /sbin/shutdown -h +[1-9][2-9][0-9]
```

Save the changes and exit the editor.

When logged in as Michael Scott, he can now use the shutdown command with:

```
sudo shutdown -h +120
```

If Michael Scott needs to cancel a pending shutdown, he can run:

```
sudo shutdown -c
```

As per the requirement, if we specify 119 minutes, an error will occur, as the time range must be between 120 and 999 minutes.

6. To allow Jim Halpert to change the ownership of files on Machine E to another user (but not to the root user), you can follow these steps to create a custom sudoers rule:

Steps to Configure Sudoers Permissions for Jim Halpert

Log into Machine E.

Start by logging into Machine E as a user with sudo privileges.

Create a Custom Sudoers File.

Use the following command to create a new sudoers file for Jim:

```
sudo touch /etc/sudoers.d/jhalpert
```

Edit the Custom Sudoers File.

Open the new file with visudo:

```
sudo visudo -f /etc/sudoers.d/jhalpert
```

In the editor, add the following line to allow Jim Halpert to change ownership of files to any user except root:

```
jhalpert machinee.dundermifflin.com=(ALL) /bin/chown [^rR][^oO][^oO][^tT]* *
```

Testing the Configuration

Log in as Jim Halpert. Change Ownership of a File. Test the configuration by running a command like:

```
sudo chown pbeesly xyz.txt
```

it will run without error

Attempt to Change Ownership to Root.

If he tries to run:

```
sudo chown root filename.txt
```

it shows an error