

Career Simulation 2

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March 24, 2023

IT Pre-onboarding Process

New Employee: Johnny Deputy

Non-technical Role: Sales Associate

Department: Sales

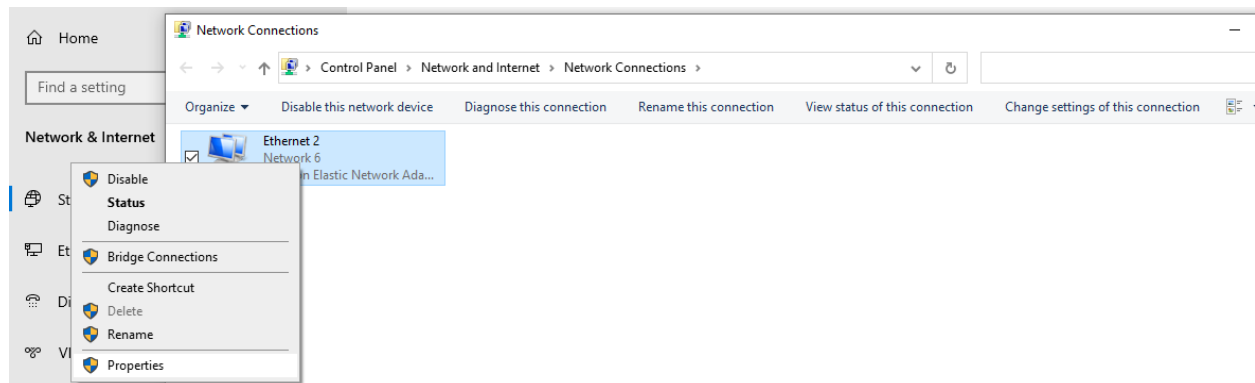
Summary

We've been tasked with creating an onboarding process for our new hires using a runbook. We'll be using Active Directory and PowerShell scripts to automate processes and create an environment to get our new hires ready to be trained as efficiently as possible. This will be a guide to help set everything up and give appropriate privileges to our new users while also ensuring we follow the principle of least privilege. With our knowledge of these systems and programs we'll be sure to create an incredible introduction to our company for our new hires using all these various techniques!

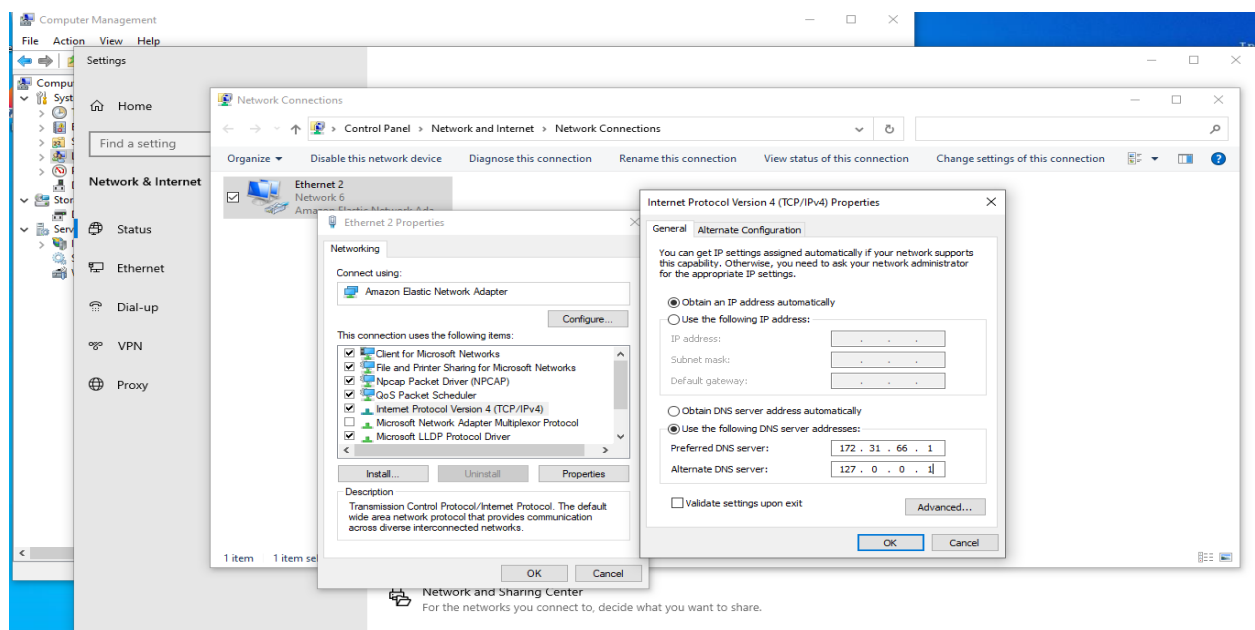
Introduction

We will begin by connecting the client or new user's computer to the domain and then navigate back to the domain controller and use Active Directory and scripting to accomplish all these tasks.

Step 1: To begin we're going to connect the new computer to the domain. To do this, we'll start by heading to the new user's computer. We'll then go to Network Status from the Windows search key. After that, we'll click change adaptor options. This will bring up a window with our Ethernet connection that we will right click, then click properties.



This will bring up the different options for our Ethernet connection, at which point we'll left double click the Internet Protocol Version 4 (TCP/IPv4). This will bring up the General options. Then click to "Use the following DNS server".



At this point we'll need to go to the server to pull the IPv4 address from it using the ipconfig command in the command line.

```

C:\Users\fstack>ipconfig

Windows IP Configuration

Ethernet adapter Ethernet 2:

    Connection-specific DNS Suffix  . : us-west-2.compute.internal
    Link-local IPv6 Address . . . . . : fe80::dcd7:6ef4:40db:5476%2
    IPv4 Address. . . . . : 172.31.66.1
    Subnet Mask . . . . . : 255.255.240.0
    Default Gateway . . . . . : 172.31.64.1

Tunnel adapter Local Area Connection* 3:

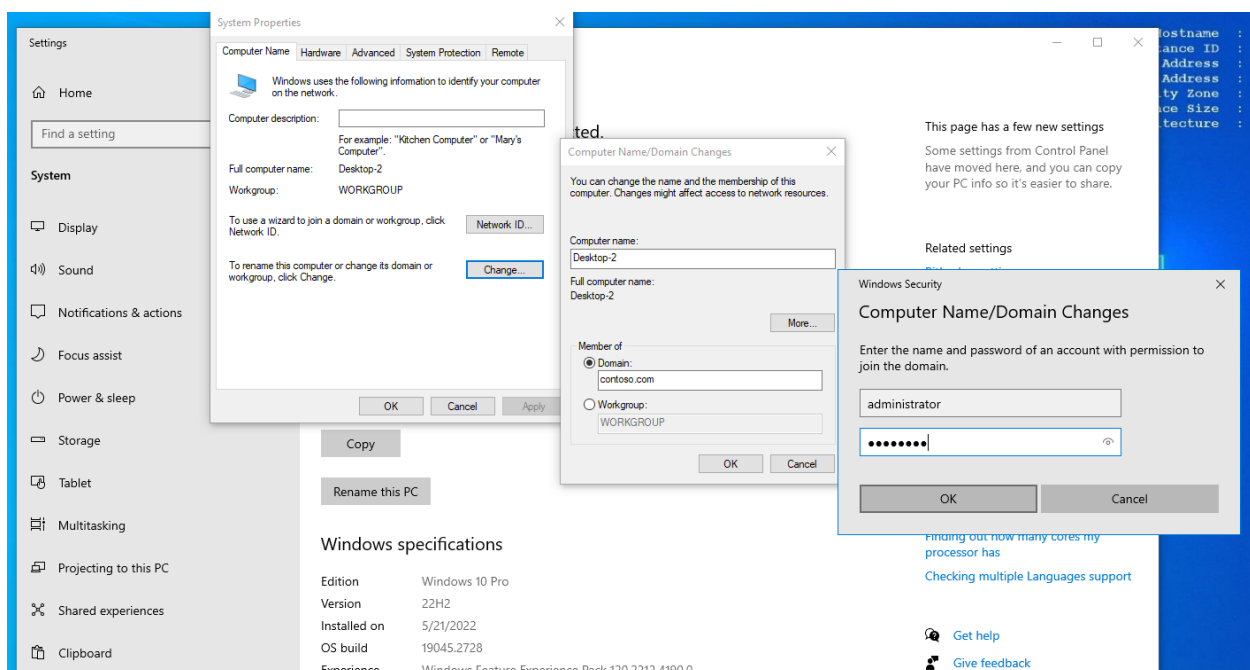
    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Tunnel adapter isatap.us-west-2.compute.internal:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . : us-west-2.compute.internal

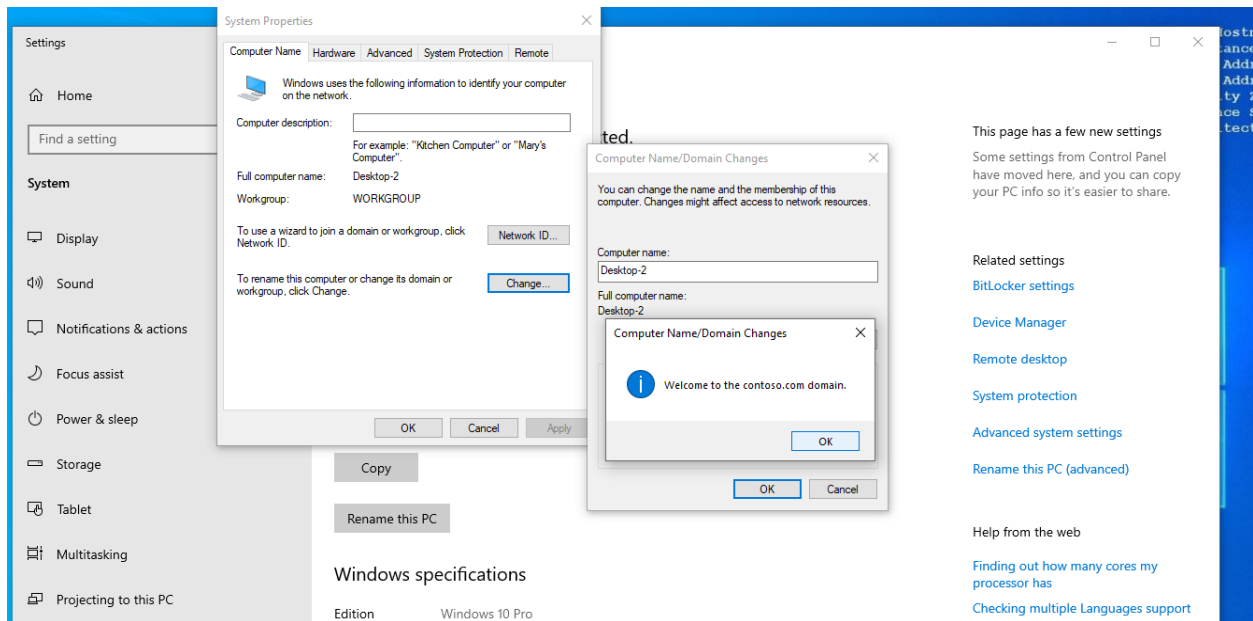
```

We'll then use that IPv4 address as our DNS server and make it preferred (as of now it is 172.31.66.1, it may change so be sure to check), while also putting the loopback of 127.0.0.1 as the Alternate DNS server. This should connect you to the domain's network. Next we'll set that up by going to Control Panel from the start menu. Click the "System and Security" and then click on "System". In the "System" window, click on "Advanced system settings" on the right hand side. In the "System Properties" window that pops up, click on the "Computer Name" tab and click the "Change" button. In the "Computer Name/Domain Changes" window, select the "Domain" option and enter "contoso.com" as the domain name.

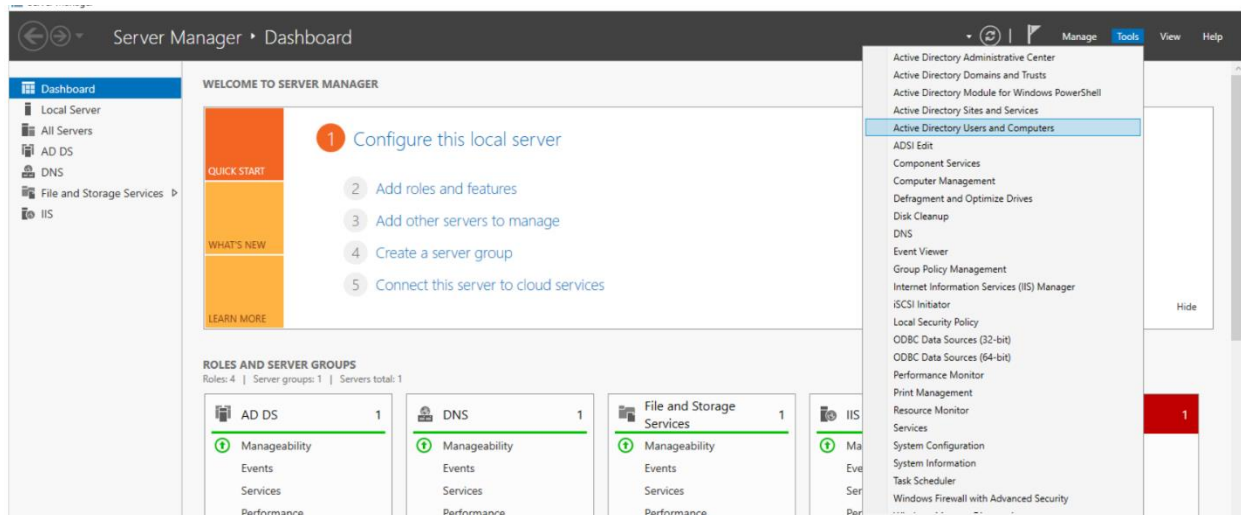


If all steps have been followed correctly it should give you a prompt, at which time you'll enter the domain username and password to log in. The username is "administrator" and the

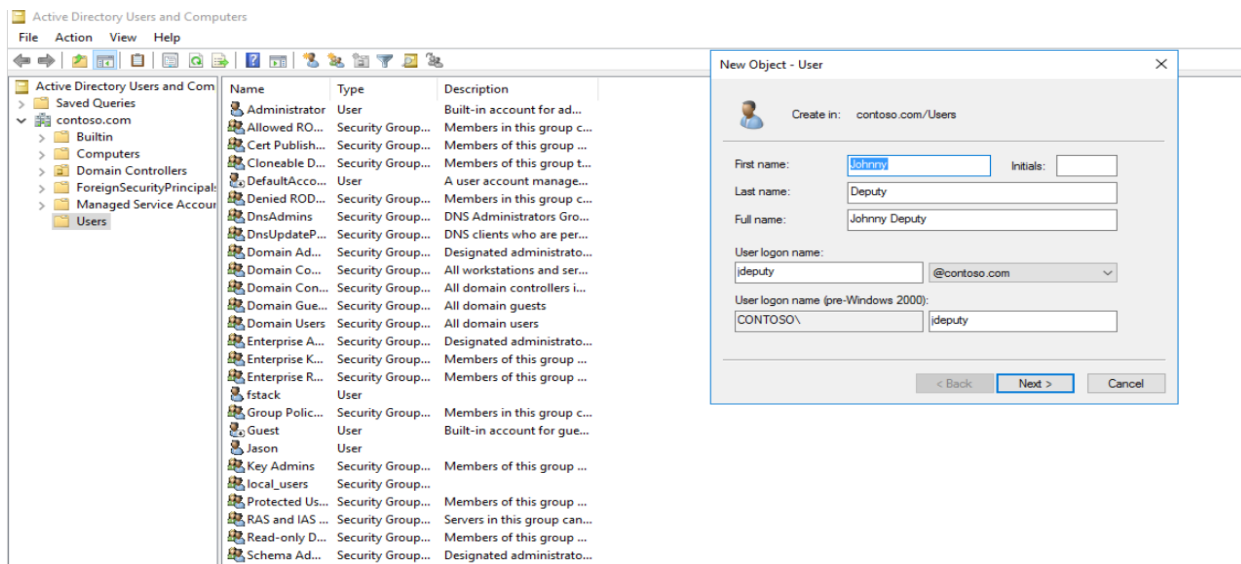
password is “Pa\$\$w0rd”. We’ll then have to restart the computer, do so now to apply these changes.



Step 2: The next thing we're going to do is switch to the server in order to set up a user account. To do this, open Server Manager in order for us to navigate into Active Directory. Then we'll click under the Tools tab in the top right and select Active Directory Users and Computers.

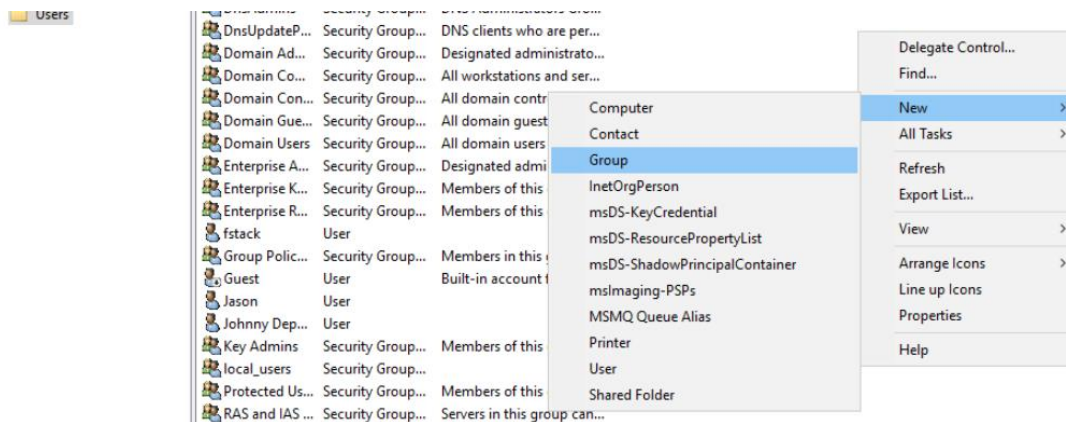


Right click to the right and highlight the new tab, then click User. This will open a New Object User window that we can enter our new credentials for the user with. Enter Johnny's name into the fields and give him a username of "jdeputy". Active directory will then select the rest of the option for setting up credentials, so click next to set up a password for Johnny.

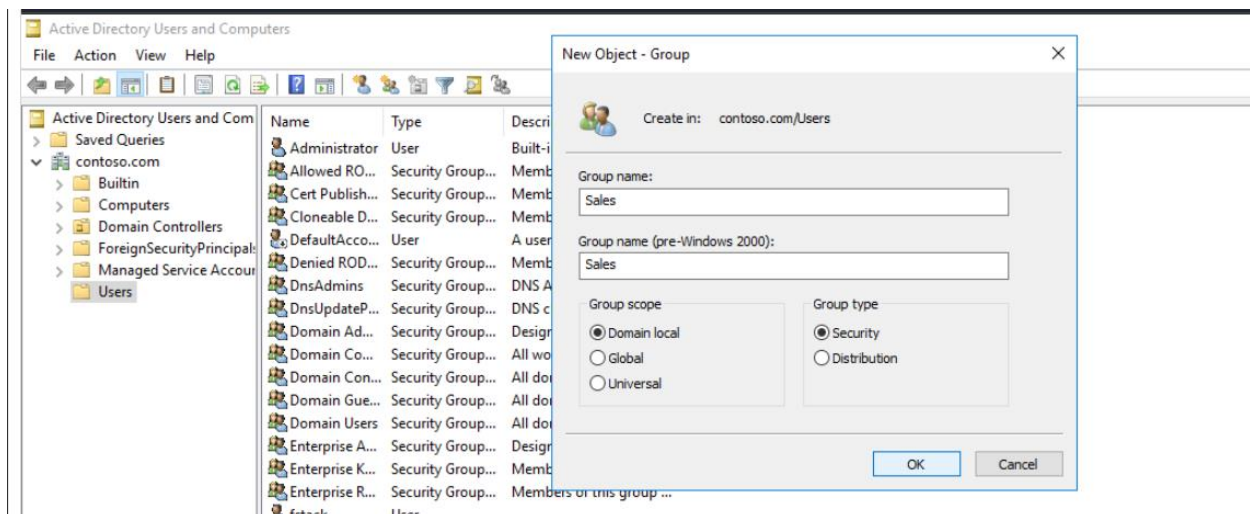


Make the password "academy" and make sure "User must change password at next login" is selected to make sure Johnny sets up a password at his first log in. Click finish on the next window and our new user should be made.

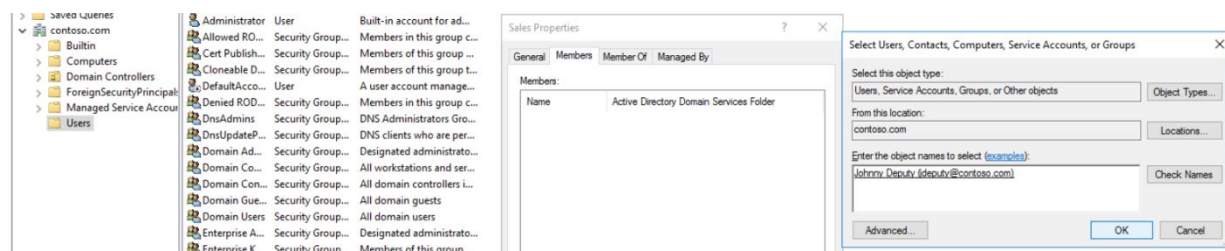
Step 3: Next we'll make a group for the Sales department and put Johnny in it. Since we're already in Active Directory, simply right click again on the left and select new, but this time add a group.



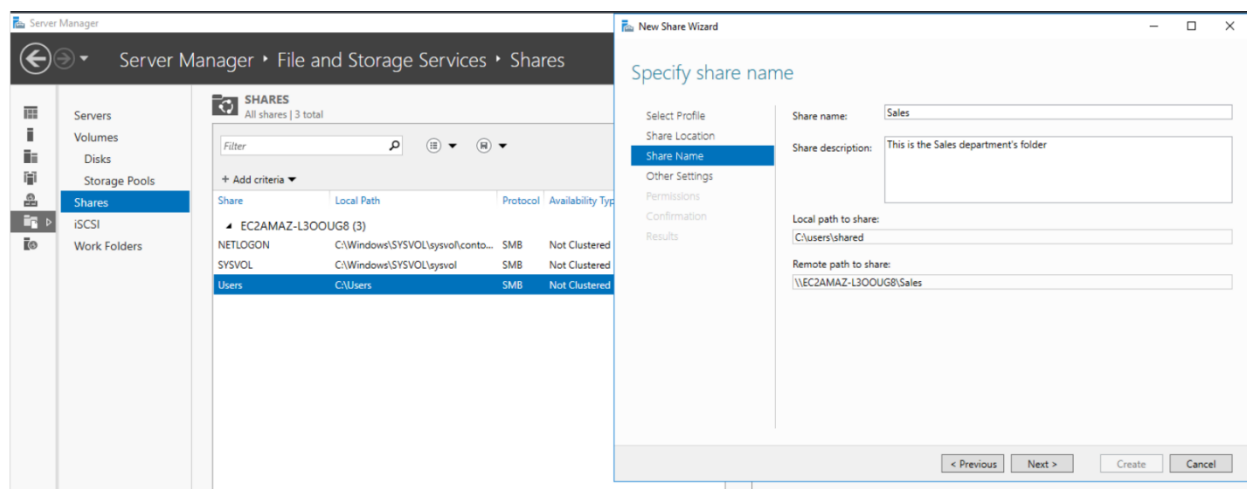
Make sure to set Sales as the group name, and click ok.



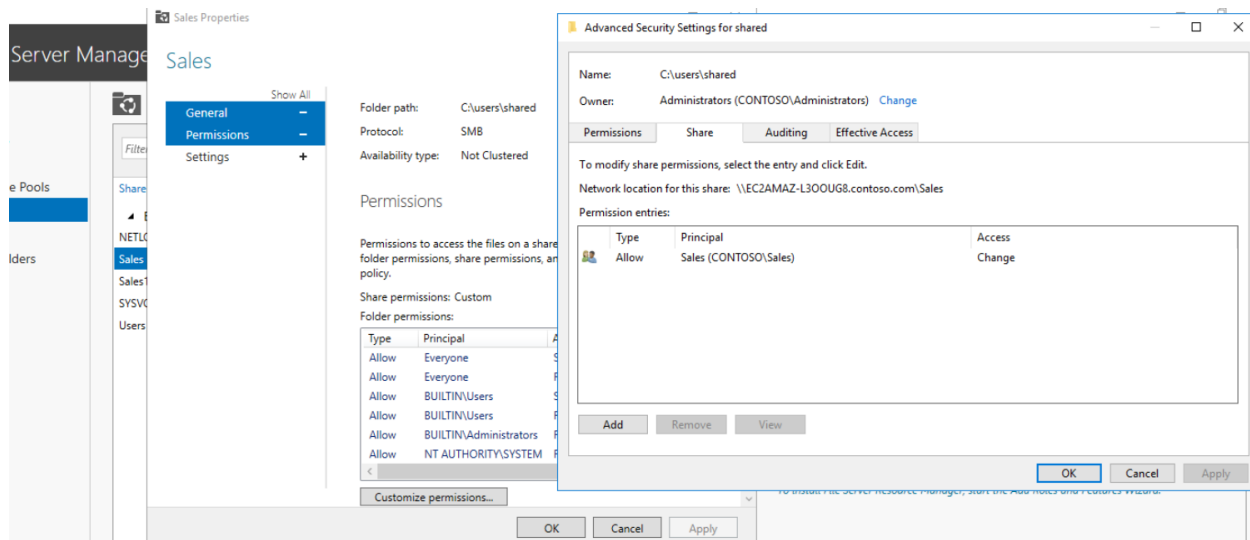
This will create our new group, then double click the group to open that, navigate to Members and click add, then type 'jdeputy' in object names and click check names to the right. This will automatically load Johnny's specifics, click ok to add Johnny. Then click apply and ok to get back to the main screen.



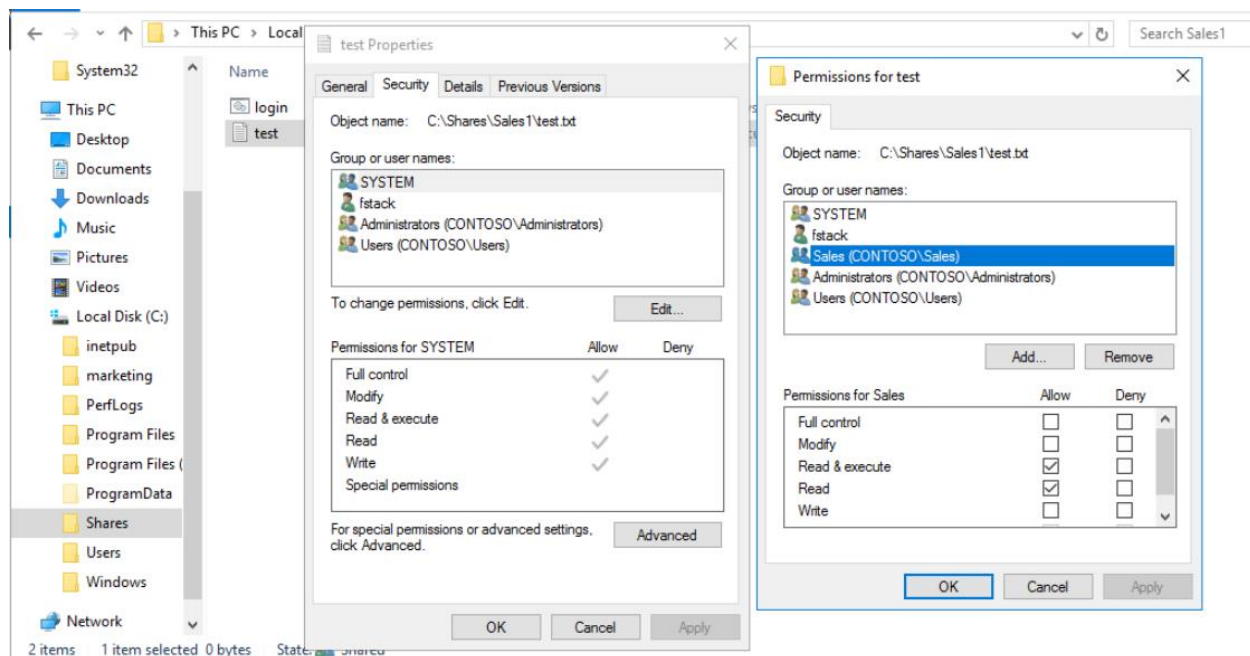
Step 4: Next, we're going to create a shared folder on the server with the department's name (sales) and give it read and write permissions. In that folder we'll create a shared text document called test.txt. To begin, go back to Server Manager's primary screen and look to the left. Click Files and Storage Services. Click the Shares tab to the left, and in the Shares window that opens right click and select "New Share...". This will create a shared folder we'll call Sales for the department. First select SMB Share – Quick, Select by volume is selected on the next screen leave it as is, we'll give it the path of "C:\Shares\Sales" in order to keep it organized within the rest of the network (The Wizard that opened will do this automatically if you call the folder Sales in this step), click Enable access based Enumeration on this next tab to make sure only those who have access intentionally can see it, click customize permissions on the next tab and add the Sales group to it, finally click create on the last page.



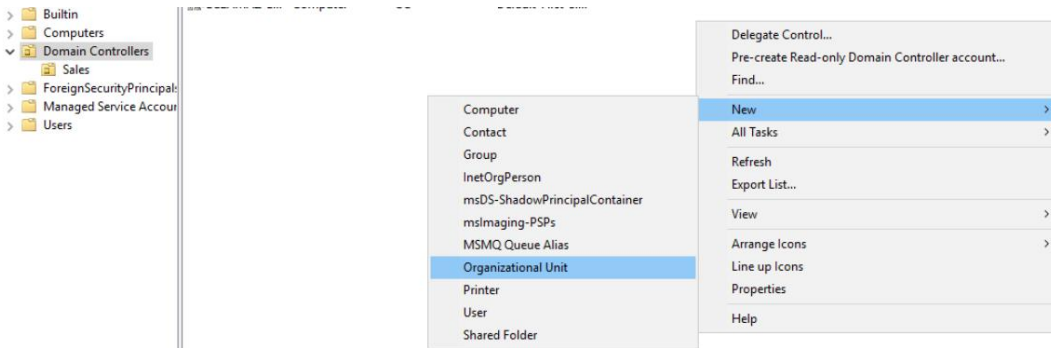
Next, right click our new shared folder so we check Sales is a shared group. We'll select properties from the bottom of the drop down menu then click the permissions tab that comes up in the properties window. Next, scroll to the bottom and click customize permissions then on the window that pops up for Advanced Security Settings click the Share tab. In this tab we can check that our group called Sales is in the shared group for the folder.



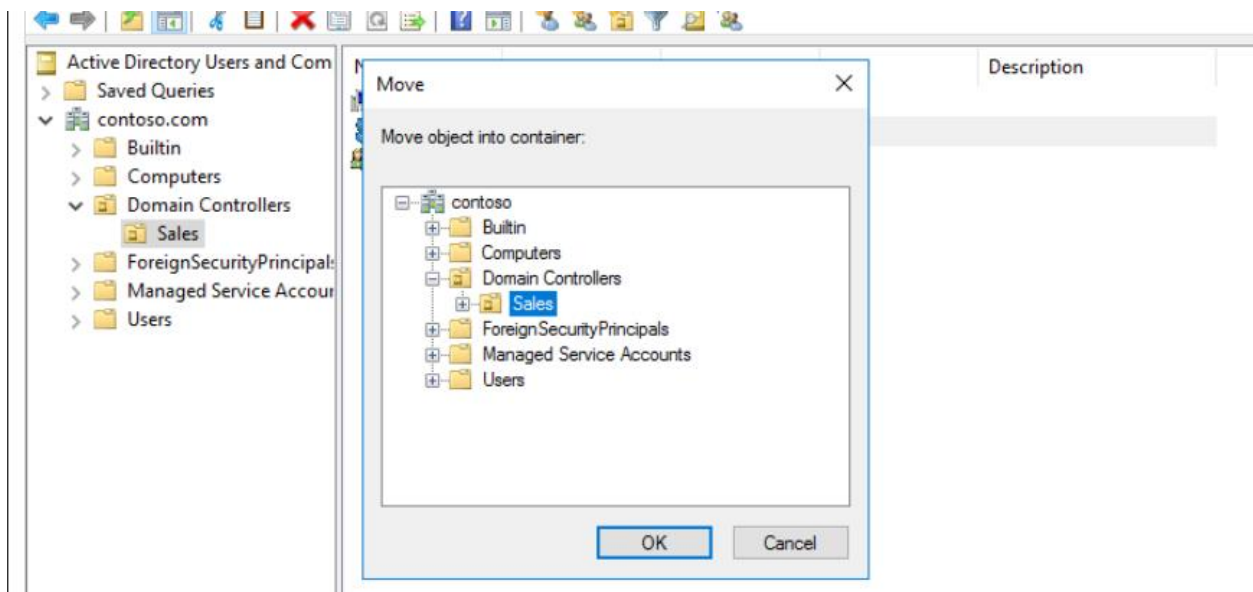
Finally we can go to add the shared text document called test.txt to this folder. To do so, open Notepad and simply click Save under the drop down in the top left so that we can save and create a blank text file in our shared folder. Be sure to give it correct pathing as C:\users\shared\Sales. Now that we have a file in the folder, right click the file, select Security, then click Edit. In the new window that pops up labeled as "Permissions for test", click to Add a group or user and enter Sales as the object name then click Check Names. This should select our sales group and add it as a group who has permissions for this text file. Click ok and you should see the Sales group added.



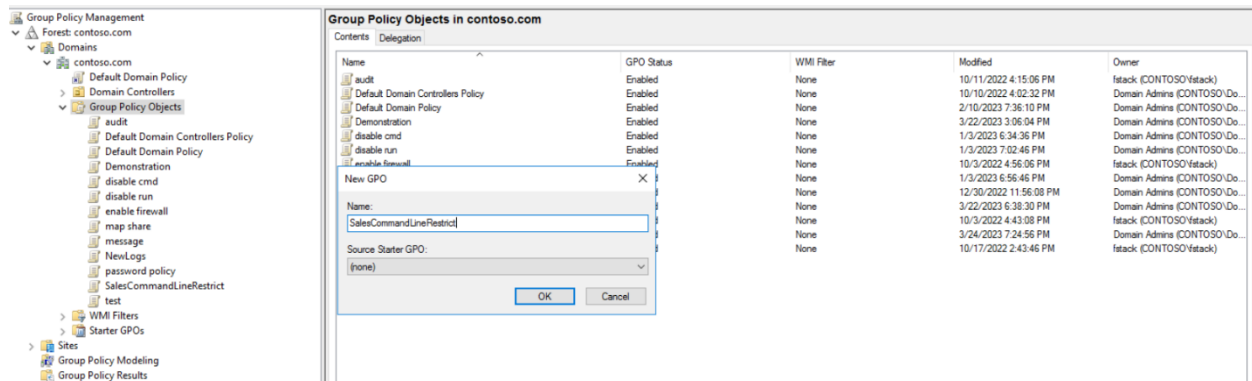
Step 5: Next we're going to create an Organizational Unit with the name of Sales and place the new user jdeputy, the Sales group, and the computer into the OU. Finally we'll attach a GPO to said OU limiting certain permissions. To begin navigate back to Server Manager and click the Tools on the top right, then navigate back to Users and Computers again. Make sure to select the Domain Controller on the left since we'll be making an OU. Within the window to the right click and select New then Organizational Unit. Call the OU Sales after the department.



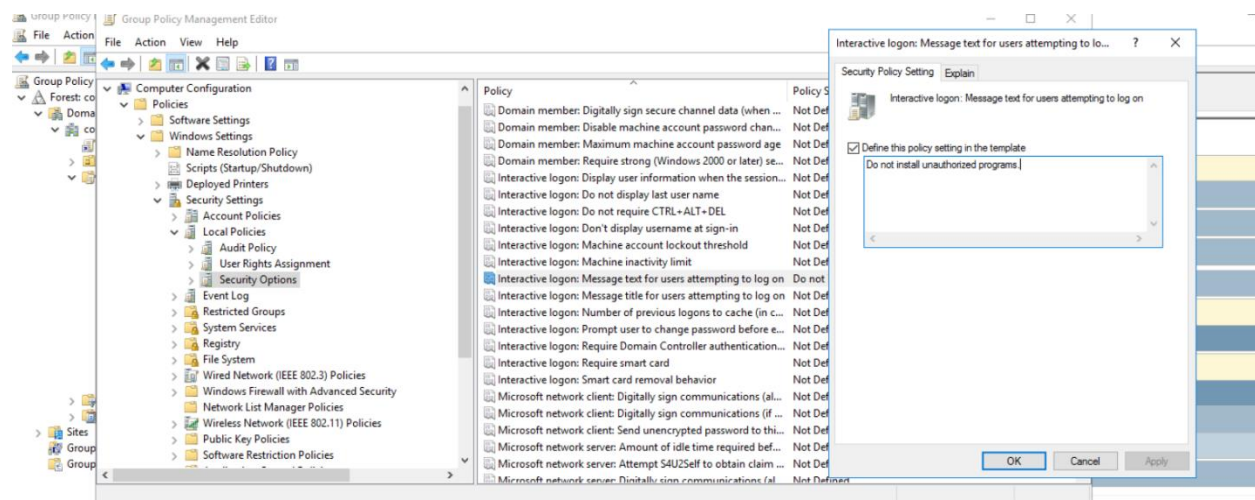
Now we're going to add the User, Group, and Computer to this new OU. Navigate to where they are within your Active Directory which should be under the Users folder to the left and right click the user Johnny Deputy then click move. Under contoso.com then Domain Controllers, select the new Sales OU we created to move Johnny there. Follow these steps for the group "Sales" and also the computer being added. Remember the computer being added will be in the Computers folder to the left so be sure to look there for it.



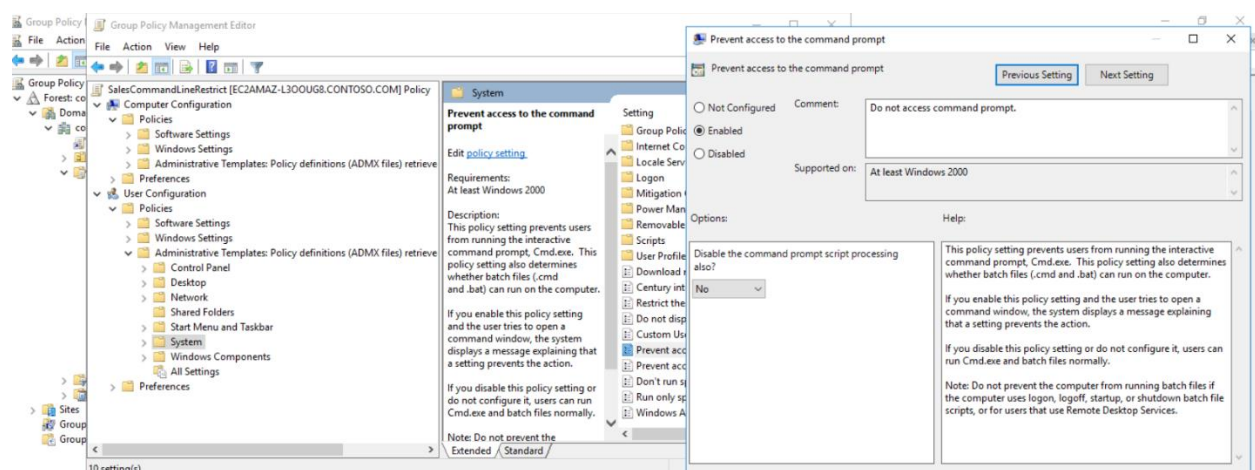
Next we'll create a GPO to attach to the new OU so that we can set it up. Navigate back to the main screen for Windows Server and select Tools again but this time navigate to the Group Policy Management category. This should take you straight to the Group Policy Object folder to the left at which time you'll right click below the lowest GPO and select New. We'll name our new GPO "SalesCommandLineRestrict" since we'll be restricting command line for them.



Step 6: Next we'll edit our GPO to set up restrictions. We will be making a message appear on login to warn of install unauthorized programs, preventing CMD line access, adding a script to map our shared folder, and disabling the run command from the start menu. To begin we will Right-click on the new GPO and select "Edit" to open the Group Policy Editor. Navigate to Computer Configuration > Windows Settings > Security Settings > Local Policies > Security Options. Locate the "Interactive logon: Message text for users attempting to log on" setting and double-click on it. Enter the message text you want to display every time the computer starts (e.g. "Do not install unauthorized programs") in the text box. Click "OK" to save the message text. Close the Group Policy Editor and link the GPO to the appropriate OU by right-clicking on the OU and selecting "Link an existing GPO." Select the GPO you just created and click "OK."



Next we'll prevent the users access to command line. Navigate to User Configuration > Policies > Administrative Templates > System. Locate the "Prevent access to the command prompt" setting and double-click on it. Select the "Enabled" option to turn on the policy. Click "OK" to save the policy. Close the Group Policy Editor and link the GPO to the appropriate OU by right-clicking on the OU and selecting "Link an existing GPO." Select the GPO you just created and click "OK."



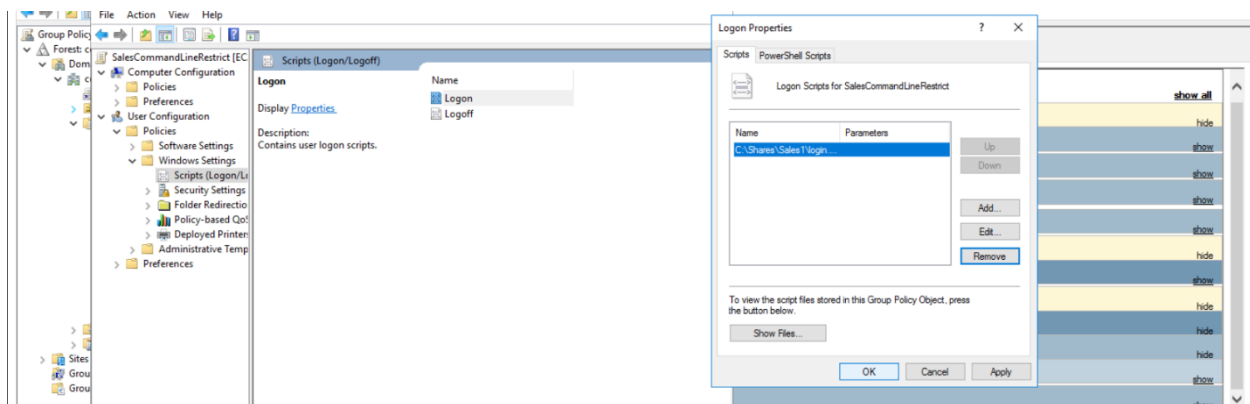
Next we'll make a script and tie it to the GPO. In the script we'll use the command:

```
@echo off
```

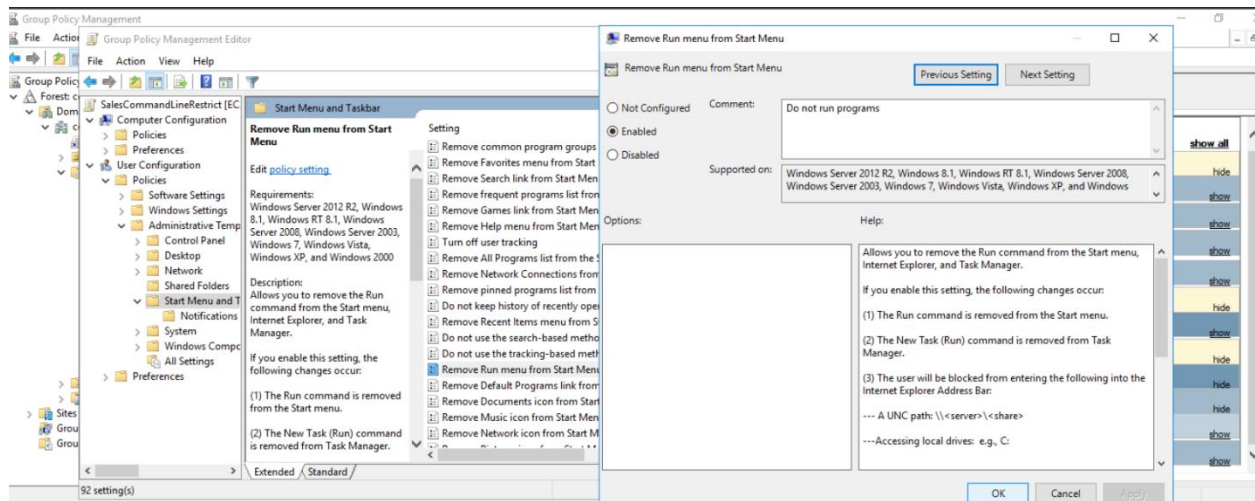
```
net use X: \\contoso.com\Shares\Sales /persistent:yes
```

Put this into a Notepad document and save it as login.bat in the shared folder \Shares\Sales.

Next we'll tie this script to our GPO. Navigate to User Configuration > Policies > Windows Settings > Scripts (Logon/Logoff). Double-click on "Logon" to open the "Logon Properties" dialog box. Click "Add" to add a new login script. In the "Script Name" field, enter the UNC path of the login script that you want to use (e.g. \\Shares\Sales\login.bat). Click "OK" to save the script. In the "Logon Properties" dialog box, click "OK" to save the login script settings.

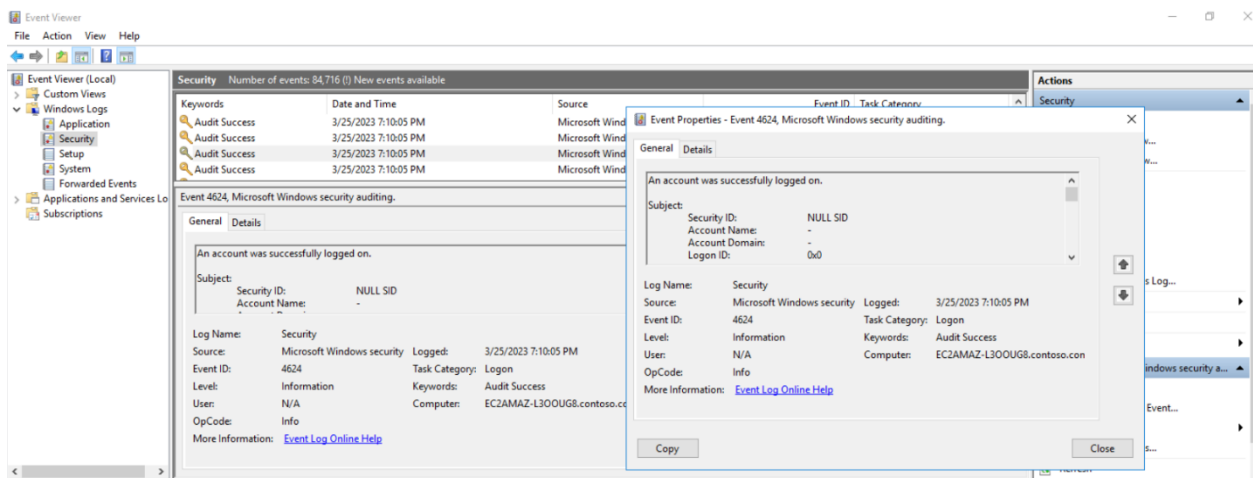


Next we'll remove the run command from the start menu. Navigate to User Configuration > Administrative Templates > Start Menu and Taskbar. Locate the "Remove Run menu from Start Menu" setting and double-click on it. Select the "Enabled" option to turn on the policy. Click "OK" to save the policy. Close the Group Policy Editor and link the GPO to the appropriate OU by right-clicking on the OU and selecting "Link an existing GPO." Select the GPO you just created and click "OK."



Close the Group Policy Editor and link the GPO to the appropriate OU by right-clicking on the OU called "Sales" and selecting "Link an existing GPO." Select the GPO you just created called "SalesCommandLineRestrict" and click "OK." This will link the GPO to the OU.

Step 7: Next we'll check the Event Viewer and see the last successful login from a user. Make sure you're logged in to the server machine with administrative privileges. Open the Event Viewer by clicking on the Start menu, typing "event viewer," and selecting the "Event Viewer" app. In the Event Viewer, click on "Windows Logs" in the left-hand pane. Click on "Security" in the left-hand pane. In the middle pane, you will see a list of security events. Look for event ID 4624, which is the Windows event ID for a successful login. You can use the "Find" feature in the "Actions" pane on the right-hand side to search for event ID 4624. Alternatively, you can simply scroll through the list of events until you find the one you are looking for. Double-click on the event to open the event details. In the event details, look for the "Account Name" field to see the username of the user who logged in successfully. You can also find additional information about the successful login, such as the date and time of the event, the computer name, and the logon type. To write down the last successful login from your user, simply note the date and time of the event and the username of the user who logged in successfully.

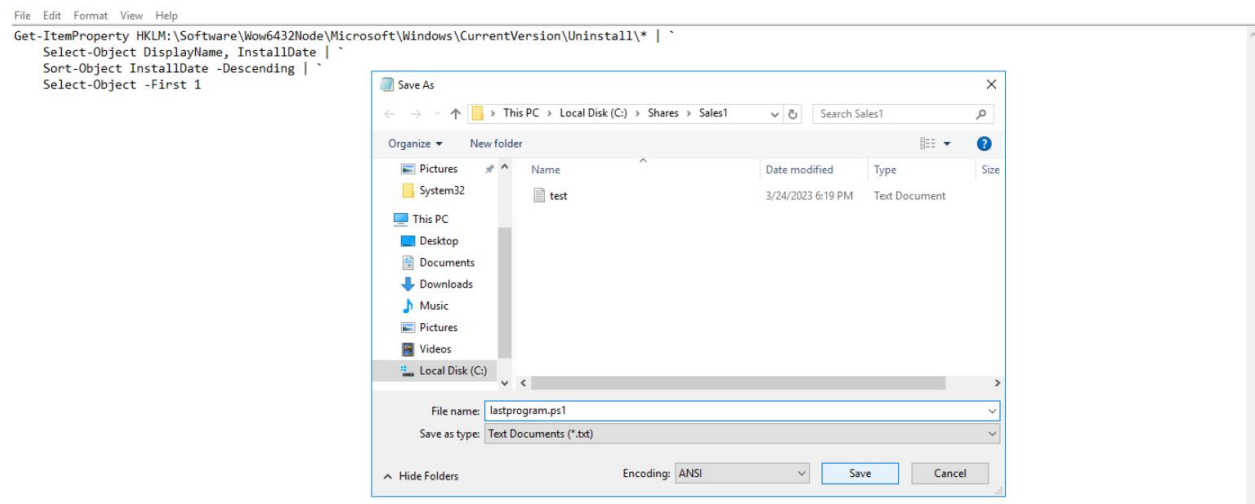


Step 8: Next we'll create a PowerShell script to see what the last program installed on the machine was. We'll use this command:

Get-ItemProperty

```
HKLM:\Software\Wow6432Node\Microsoft\Windows\CurrentVersion\Uninstall\* | `
  Select-Object DisplayName, InstallDate | `
  Sort-Object InstallDate -Descending | `
  Select-Object -First 1
```

Take this command and save it to a file called lastprogram.ps1 in the shared folder we created.



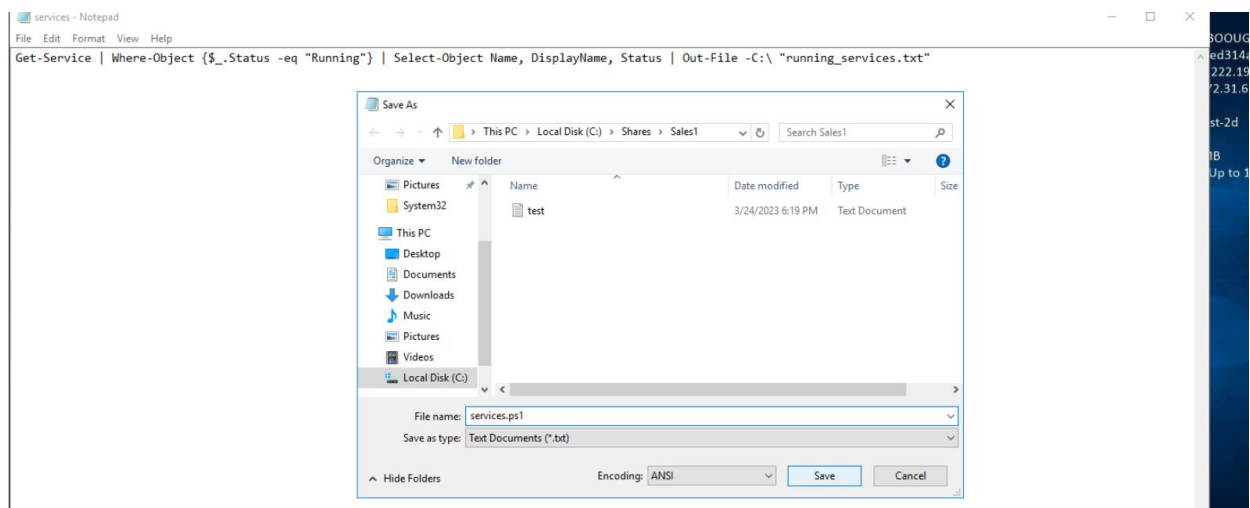
This script will look in the registry under the Uninstall key for all installed programs, and then select the DisplayName and InstallDate properties for each program. It will then sort the list by InstallDate in descending order, so that the most recently installed program is at the top, and select the first item in the list.

To run the script, open PowerShell and copy and paste the script into the PowerShell window. Press Enter to run the script and it will output the name and installation date of the most recently installed program on the computer. Making this command a script will enable ease of access later for anyone who needs to run it.

Step 9: For our last step, we'll create a PowerShell script that lists all running services and puts the output into a file called "running_services.txt". We'll do this using the following command:

```
Get-Service | Where-Object {$_.Status -eq "Running"} | Select-Object Name, DisplayName, Status | Out-File -FilePath "running_services.txt"
```

Save this command to a notepad document and call it "services.ps1" since it's a PowerShell script. We'll be saving this to the shared folder we created earlier. Our script can now be used by the group so see running services if needed.



Conclusion

All of these steps will help to set up users and groups with appropriate restrictions so that we can have an effective and efficiently trained team following all best practices with security so that we minimize risks. Using these methods we can establish a good foundation to set ourselves up for success. All of these steps will set up our accounts as well as giving everyone some tools needed to achieve our goals. Please see the IT Security Manager if you have a persisting user (Which is Damen) otherwise this guide should walk you through everything you need. Good luck!