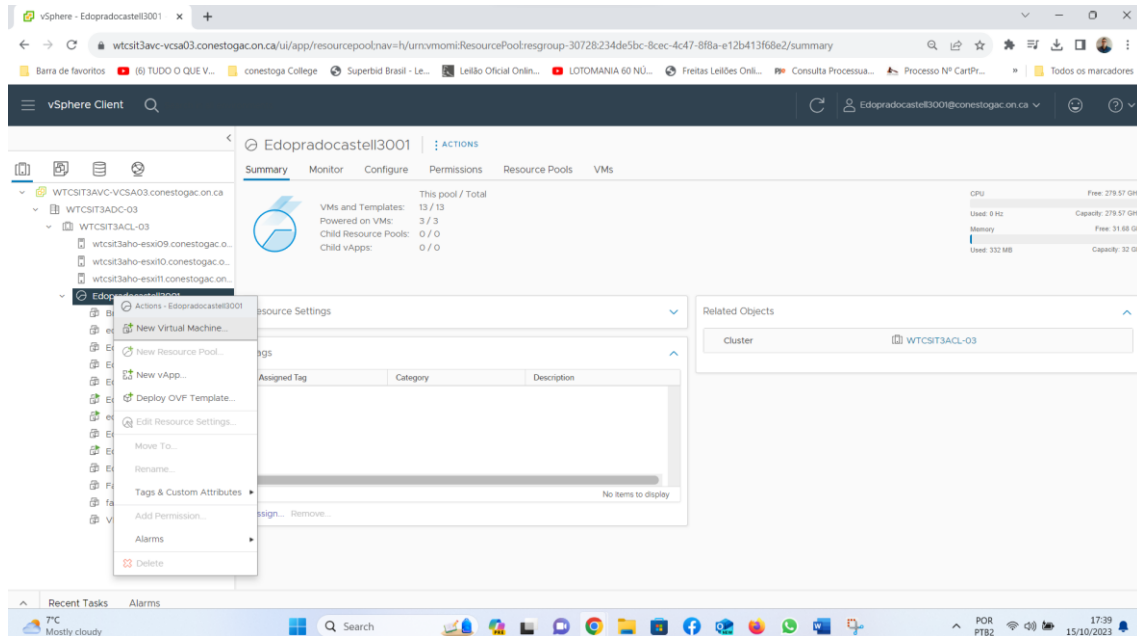


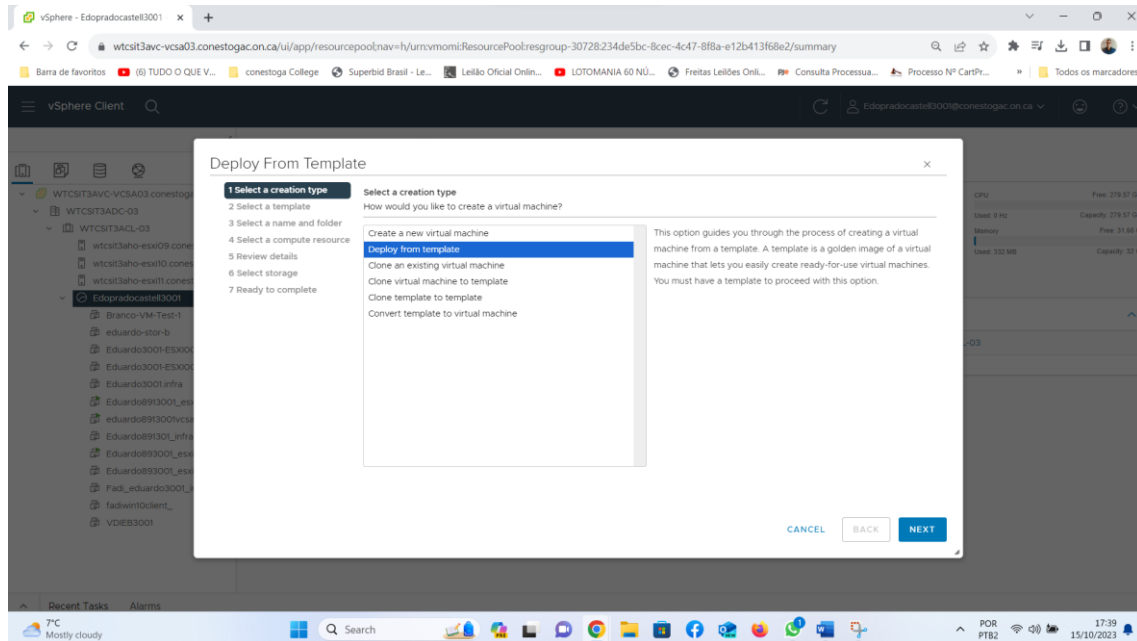
Task 1 - Create and configure Active Directory Domain Controller (DC)

- a- Create a Windows Server 2019 VM and name it as DC by deploying from the provided template for Windows Server 2019.

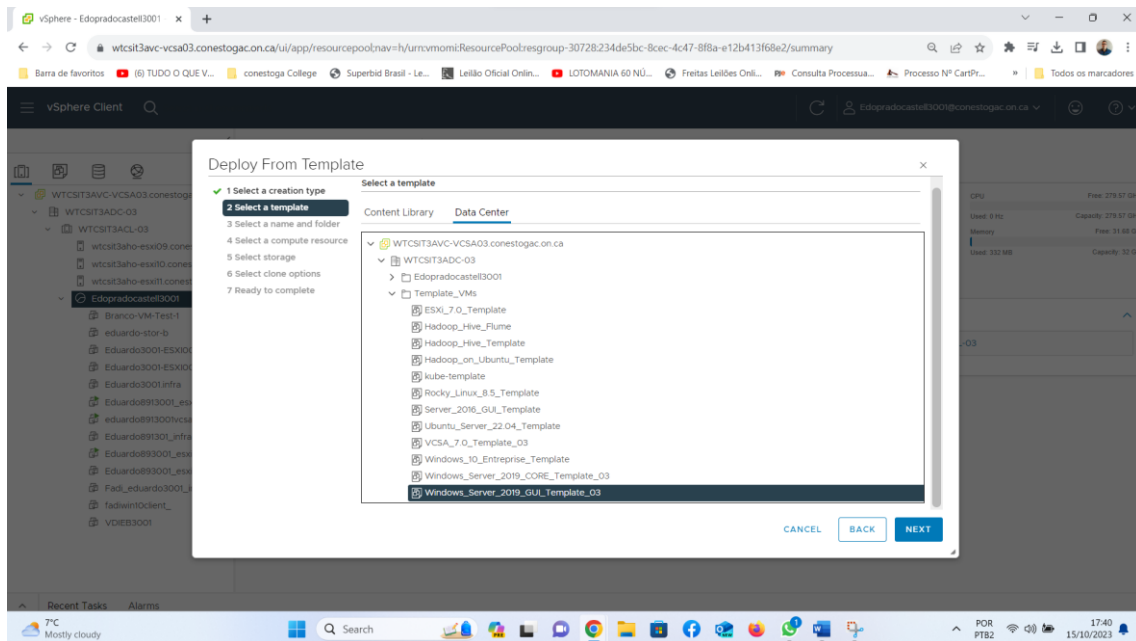
First step right, click on my ID, then new virtual machine.



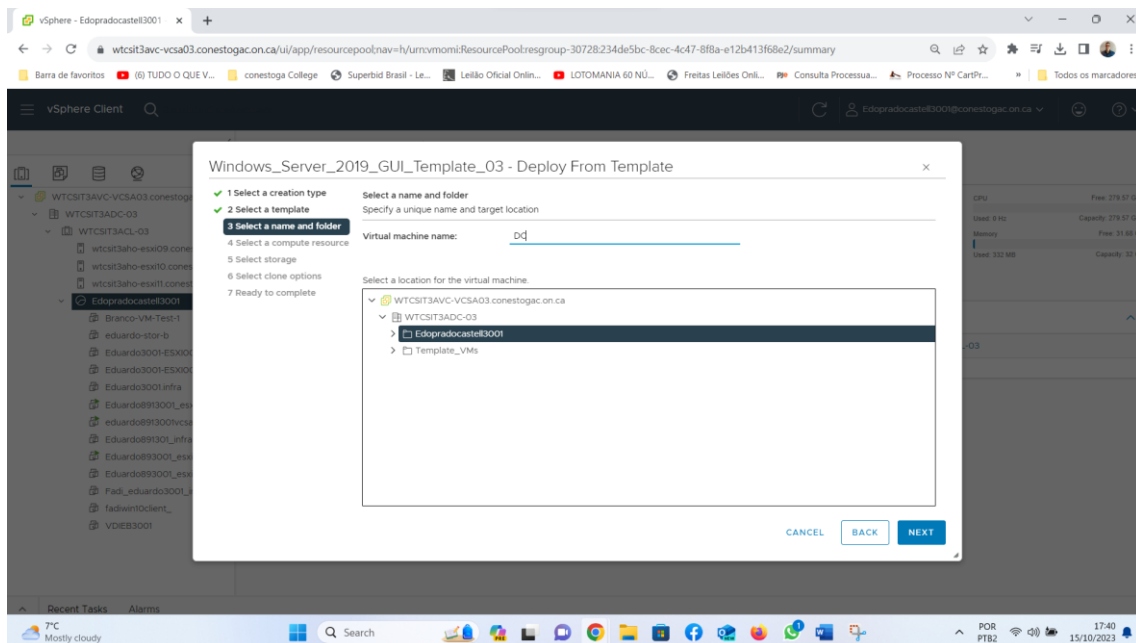
the second step, select a creation type - deploy from the template, select next



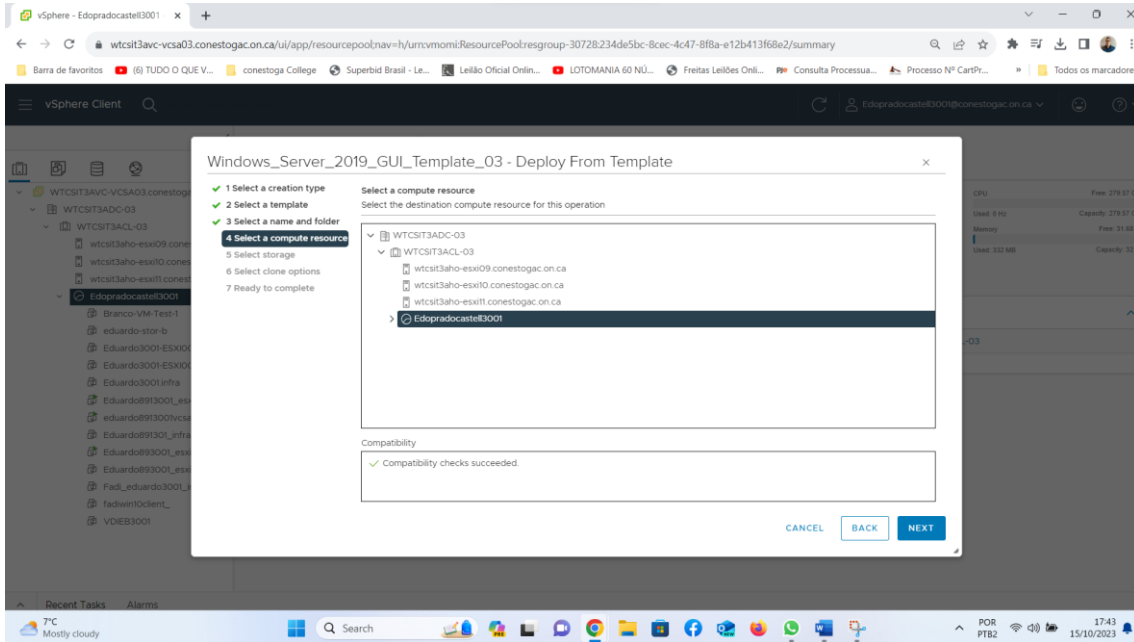
go to data center and select template vm, then select Windows Server 2019 GUI template
select Netxt



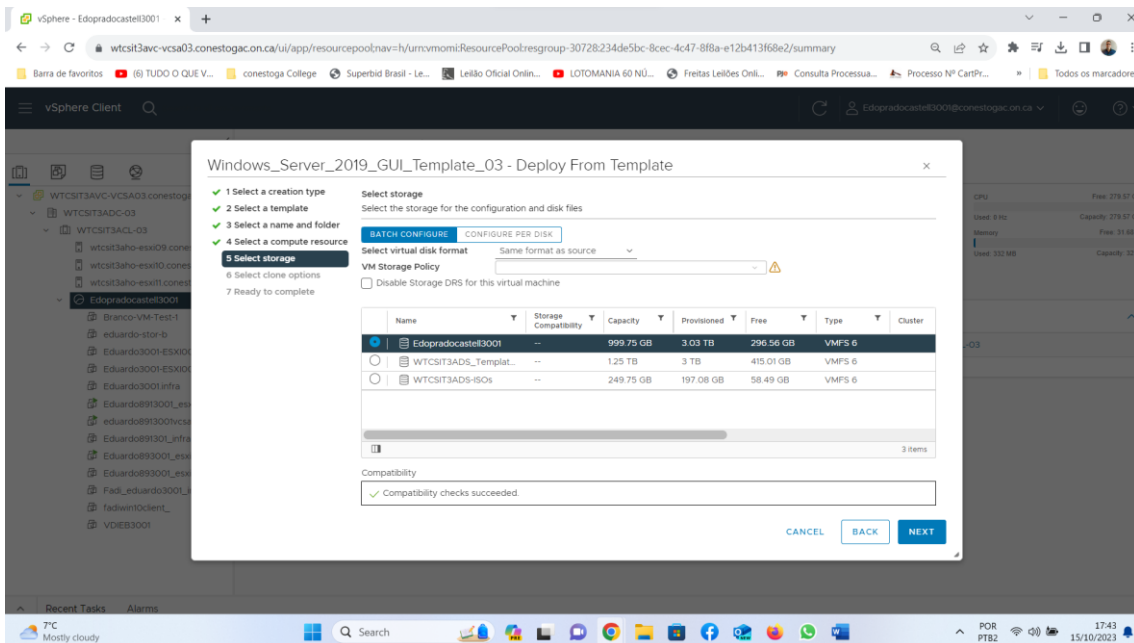
This step, put virtual machine name as DC, and chose location, select my. Select next



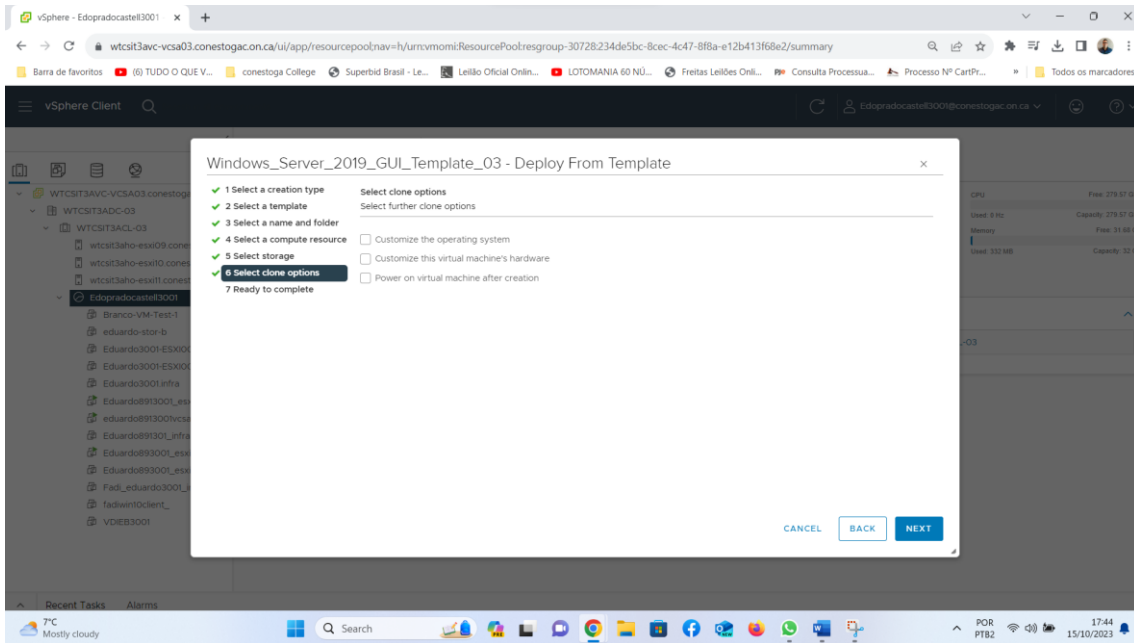
In this step, place the target resources. I choose mine. Select next



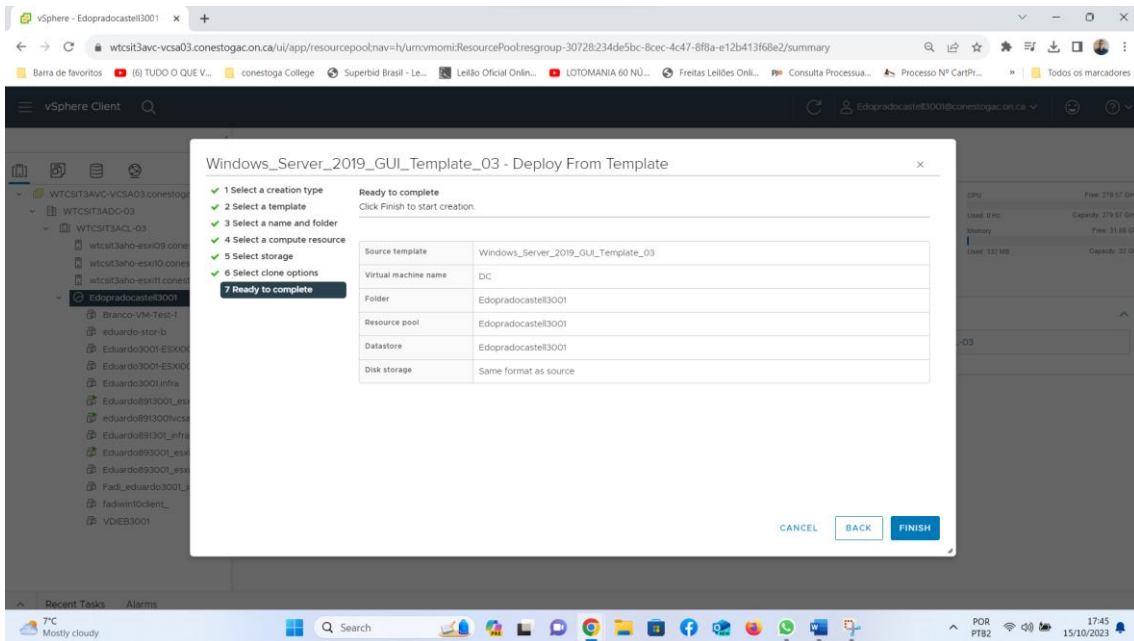
In this step, select my disk and then select next



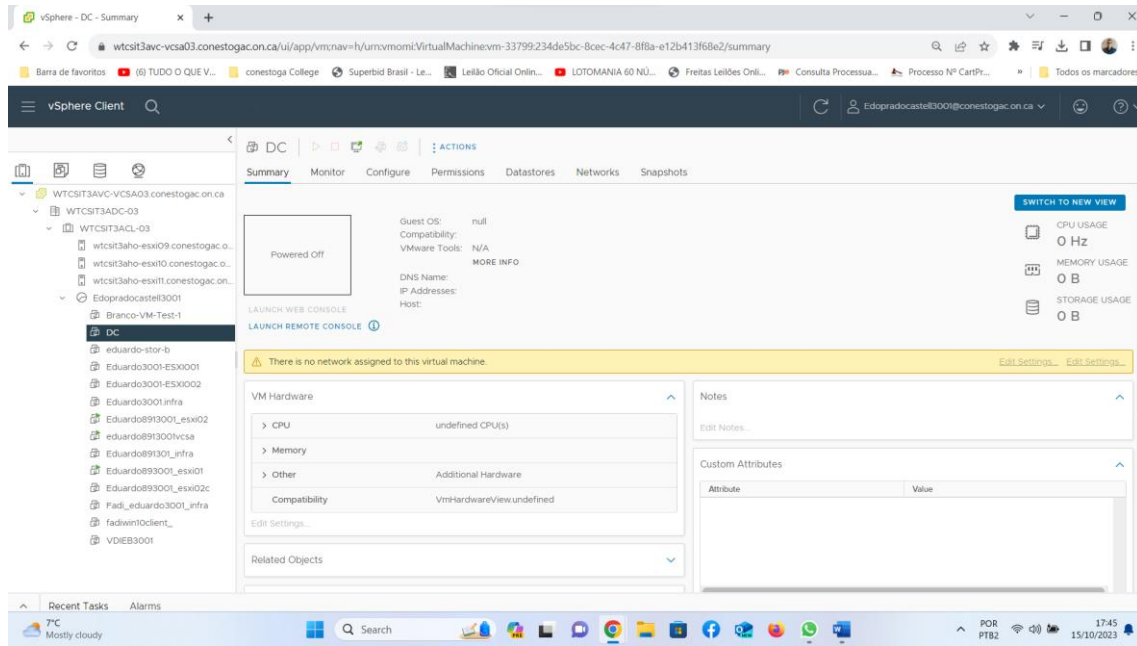
In this part only, just select next



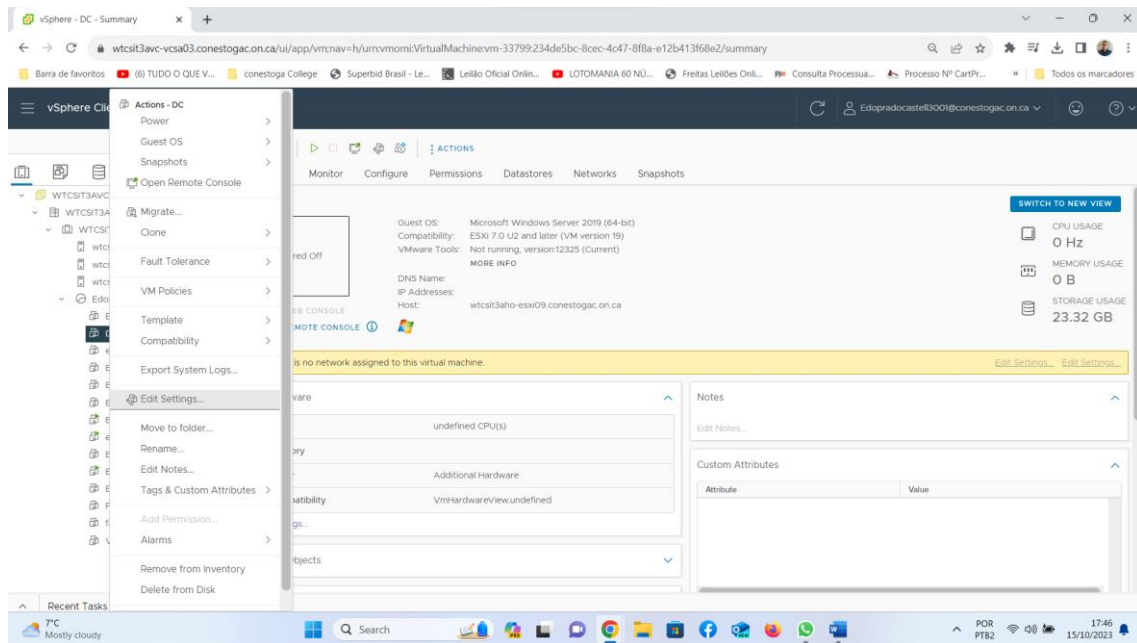
this last step, with some information about the system, name of the vm, just select next



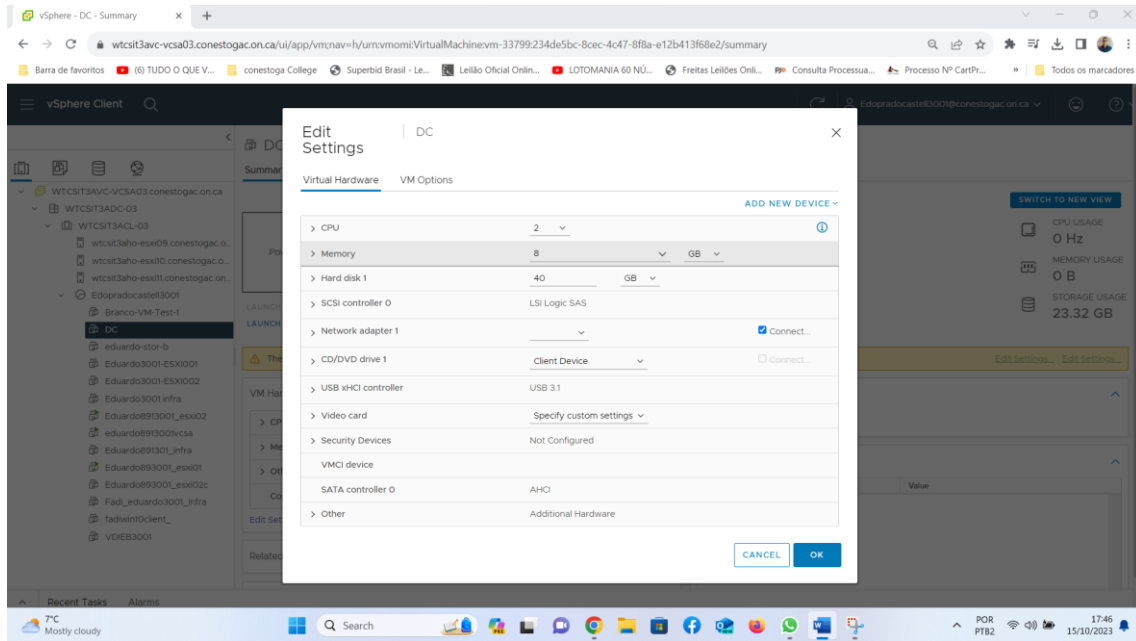
as we can see the vm was created with the name DC.



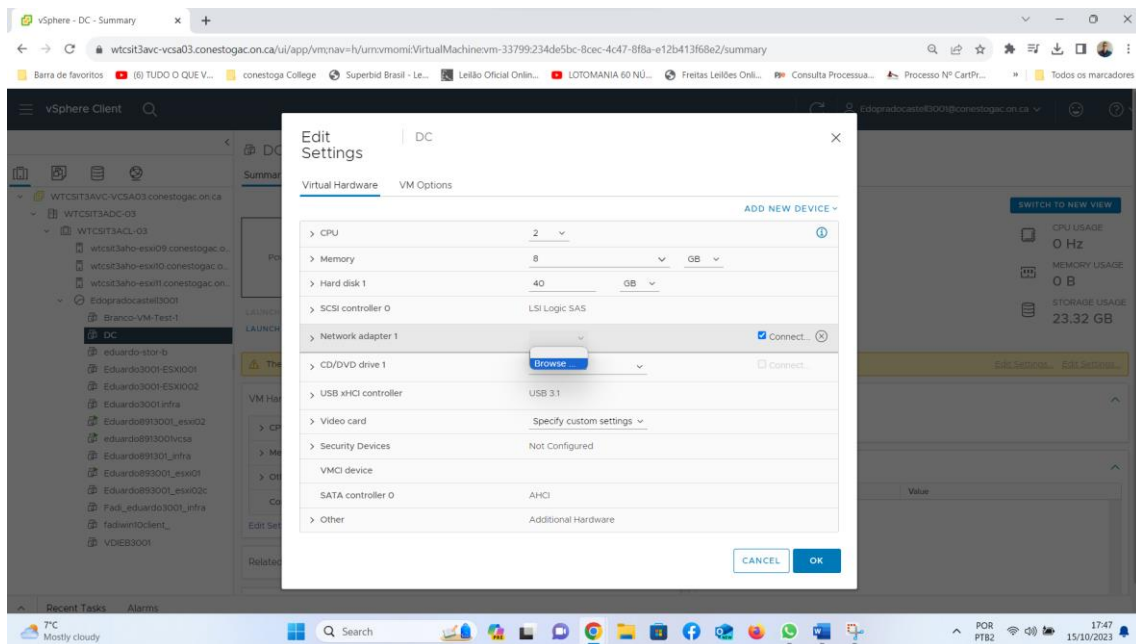
In this step, click on right we go to edit settings.



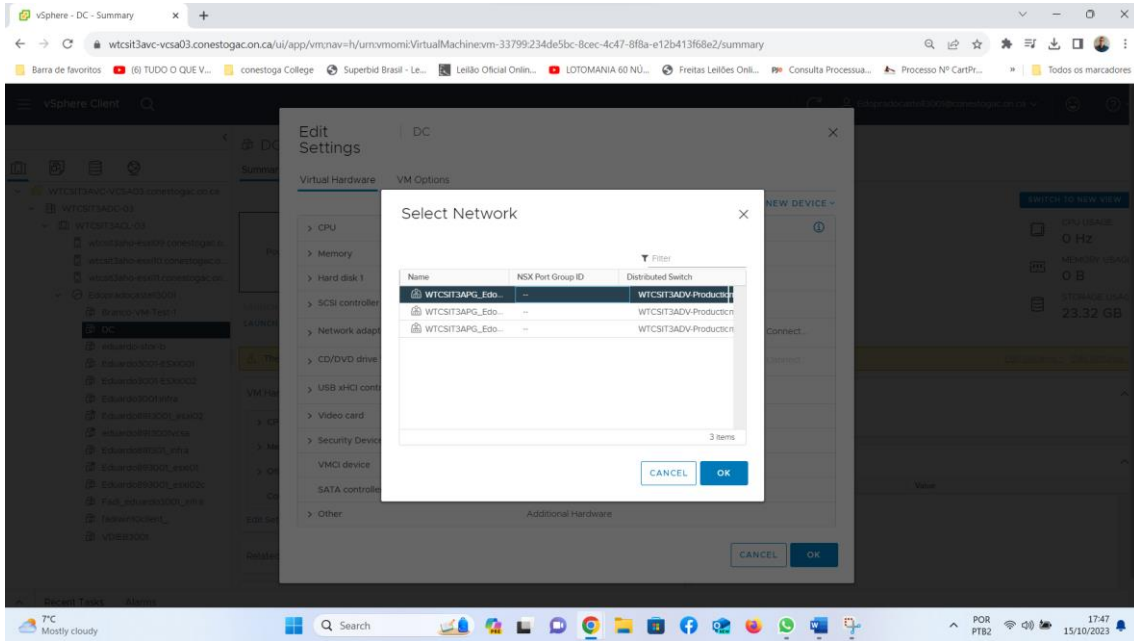
In this step, it allows customization of hardware such as CPU, memory, among others.



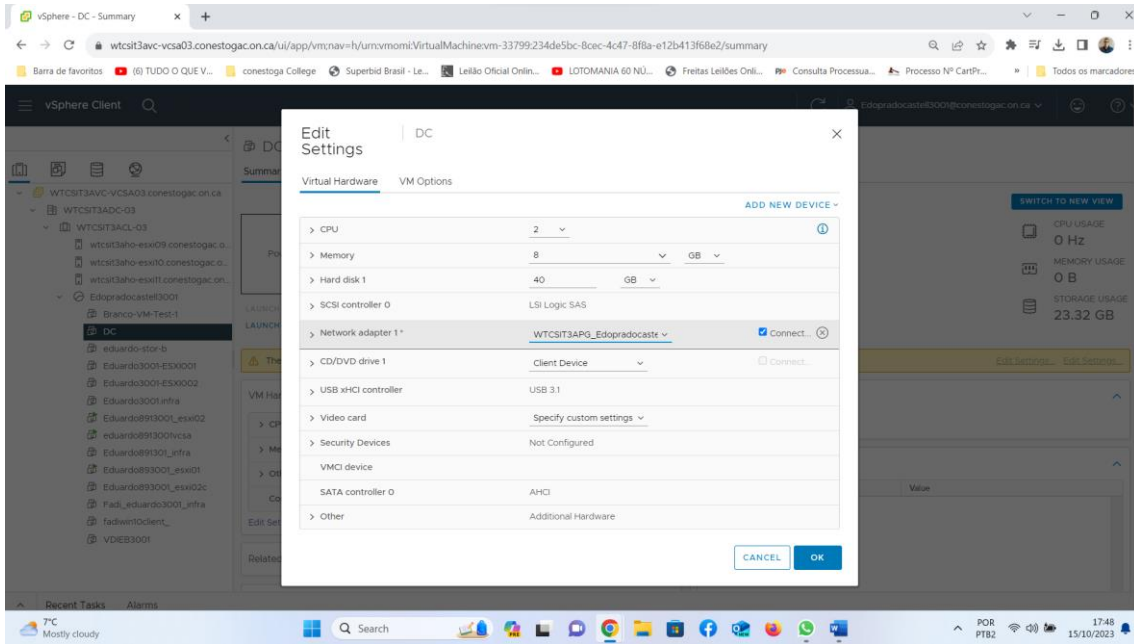
on the same page, we will go to the network adapter and then click on select browse



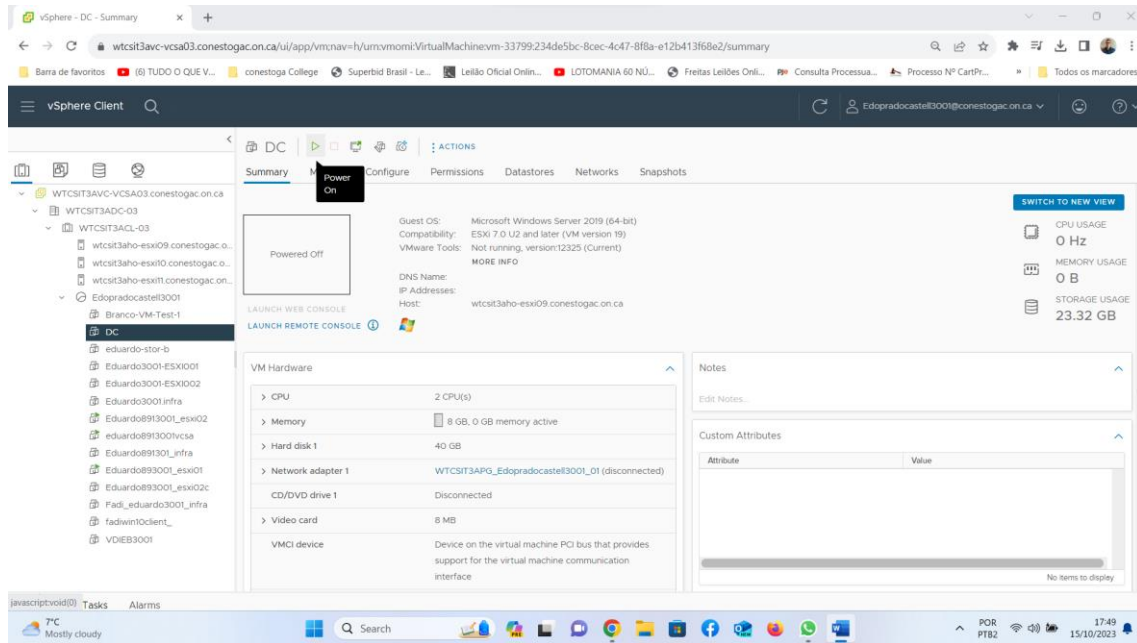
Then a new tab opens with several network options. In this case, I chose the first. Select ok



As we can see in the network adapter the one I chose is selected. click ok.



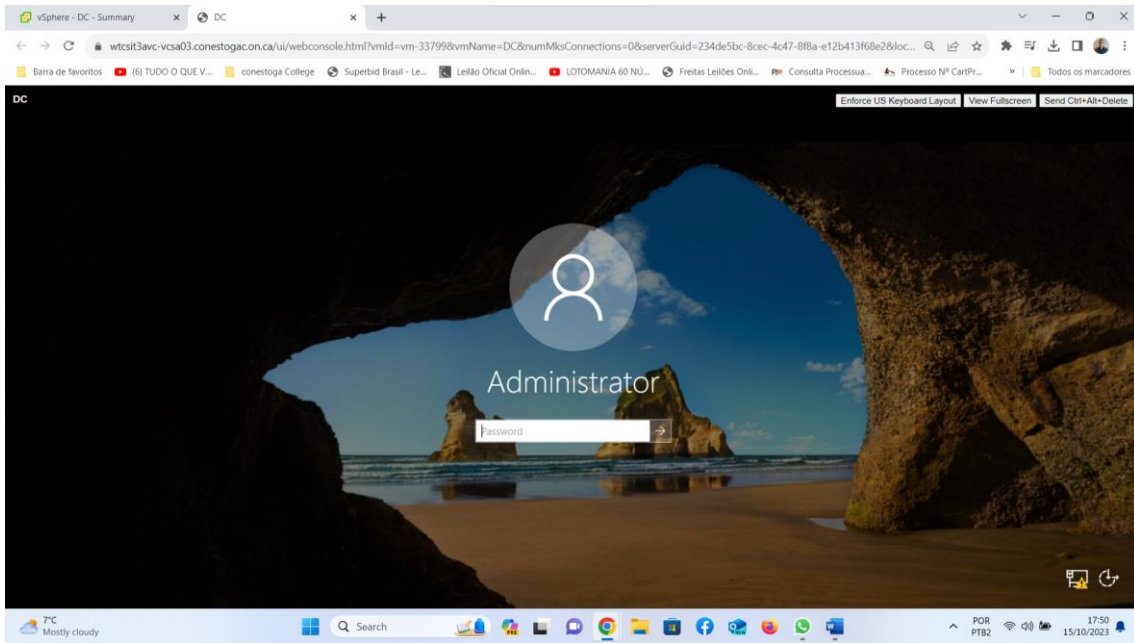
Now that our VM is ready to start. just select power on. After that click on launch web console.



The system working. just click sent ctrl +alt +delete.

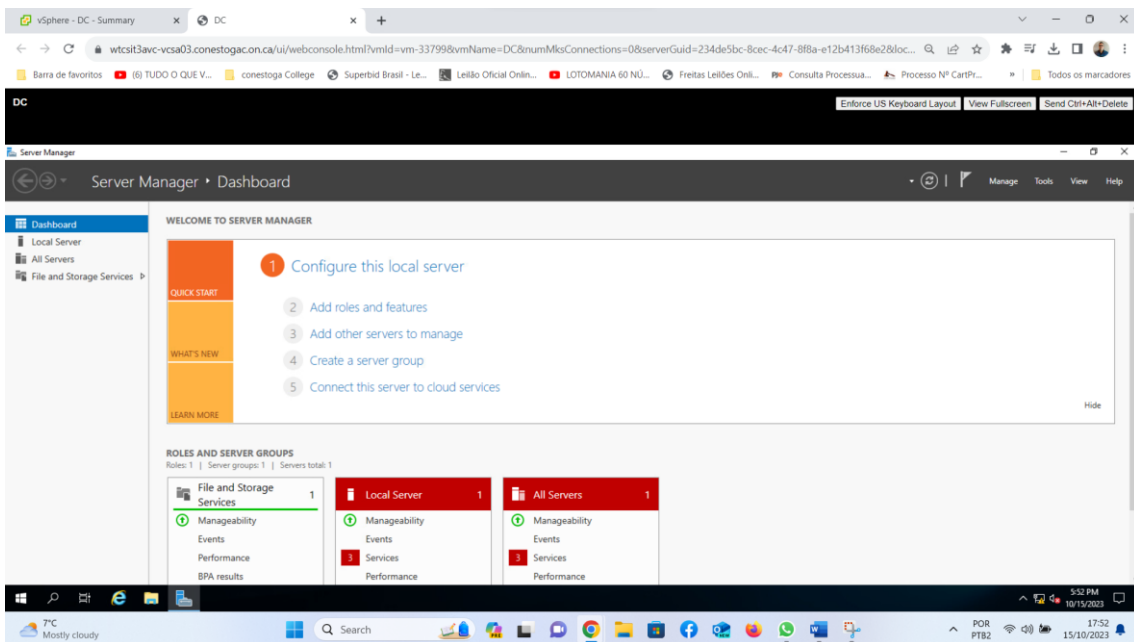


Using the password Secret55 we will log in as administrator

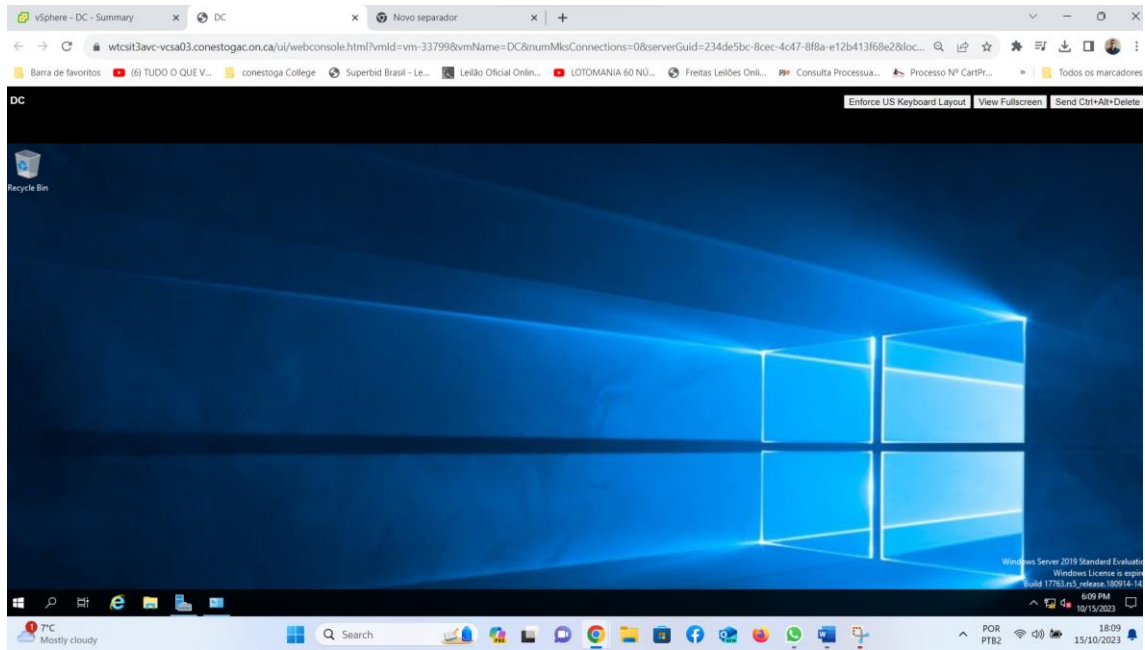


On this screen, it shows the dashboard.

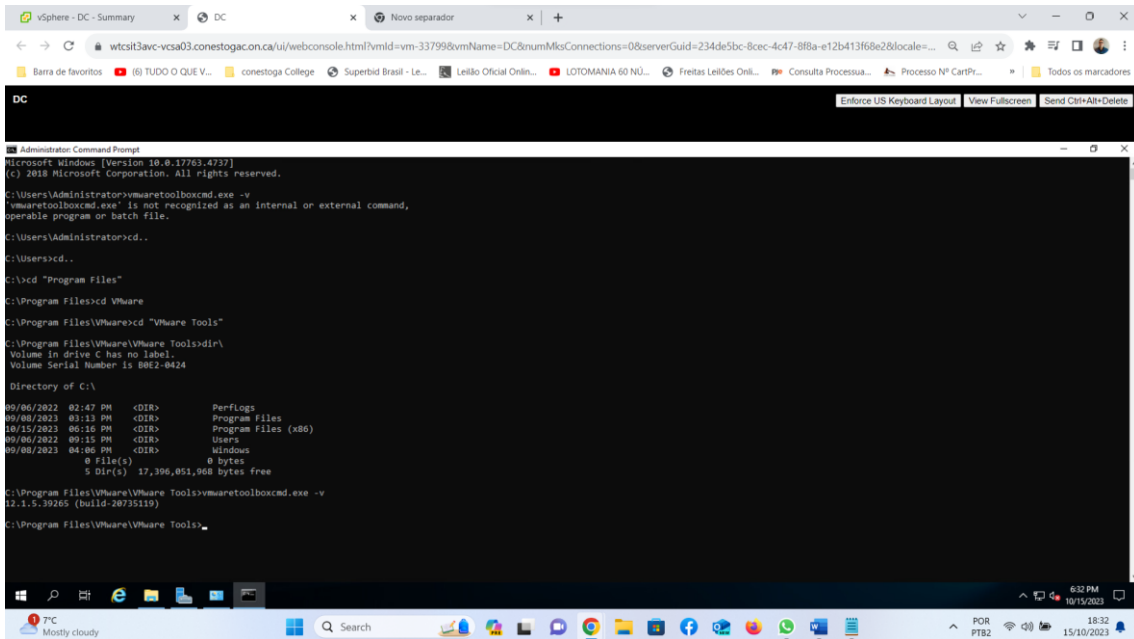
We can see that for now no services such as ADDS, DNS or DHCP are installed.



In this part we will just minimize the screen. We observe the exclamation mark in the network part.

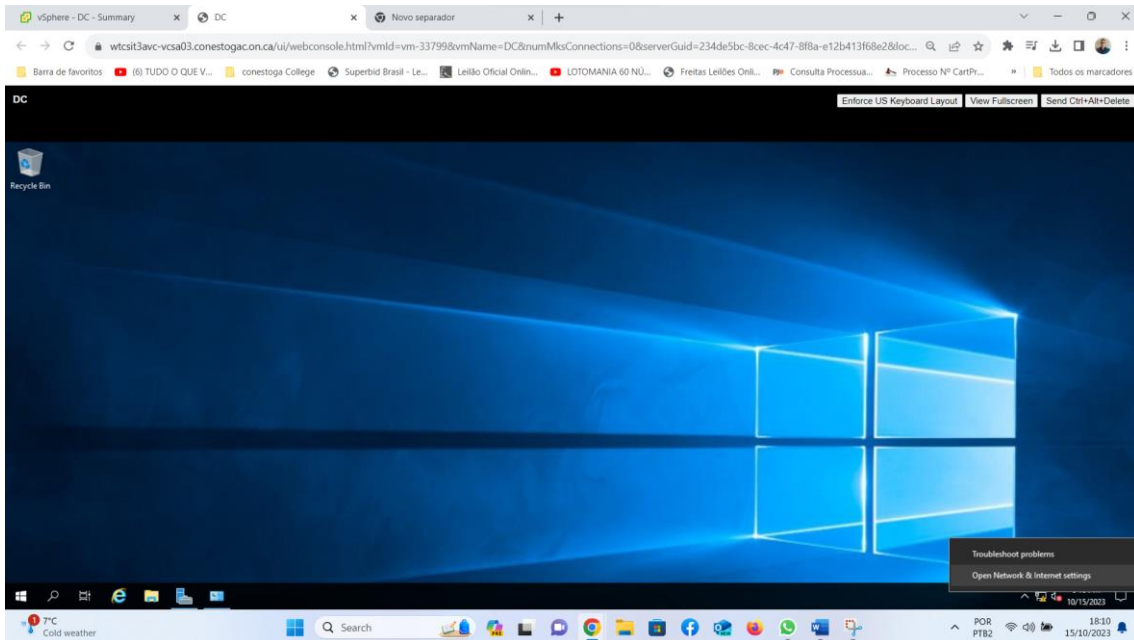


b- In this step I just opened cmd to check if vmware tools. As we can see it was already installed by default

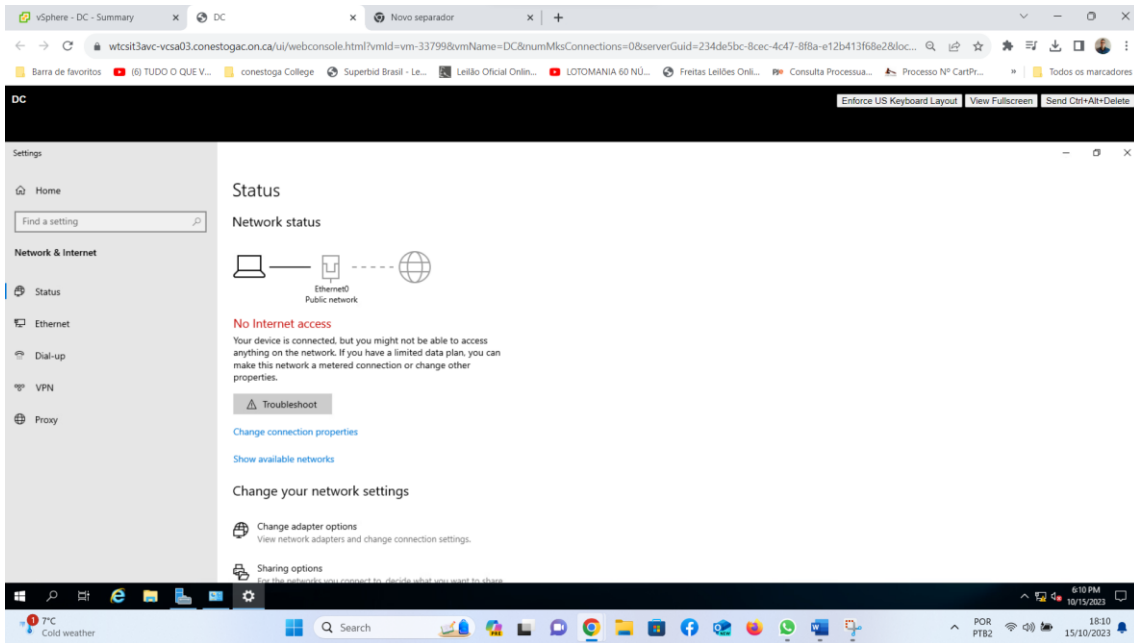


c- Configure network adapter for static IP and disable IPv6 for this infrastructure

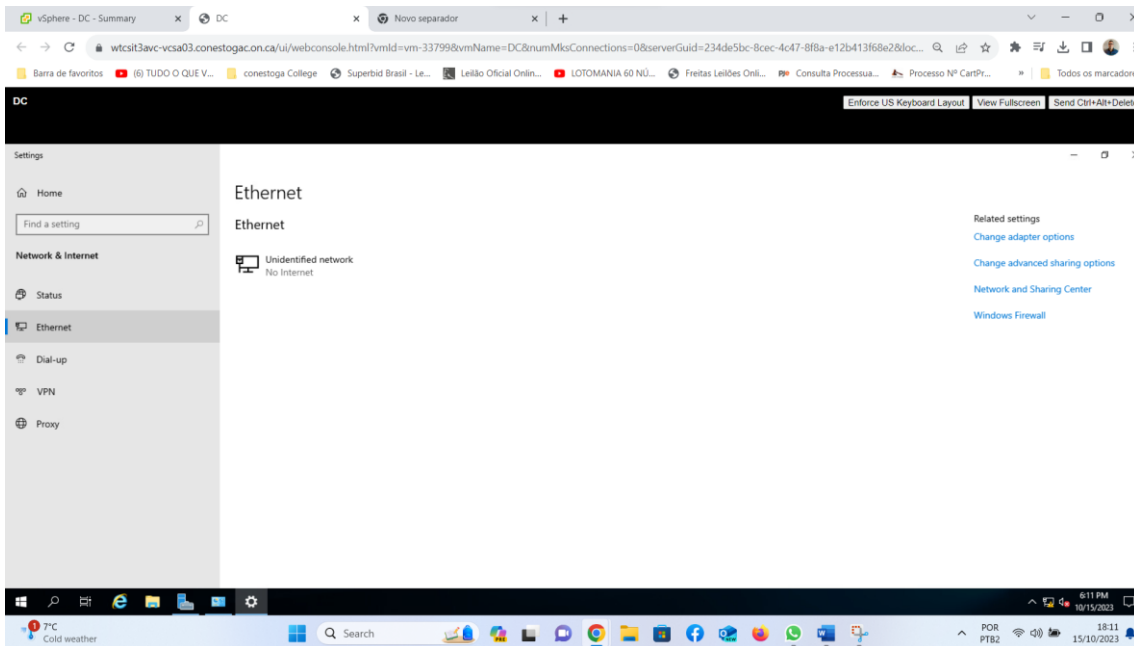
Right-click on the network icon. then click on open network & internet and settings.



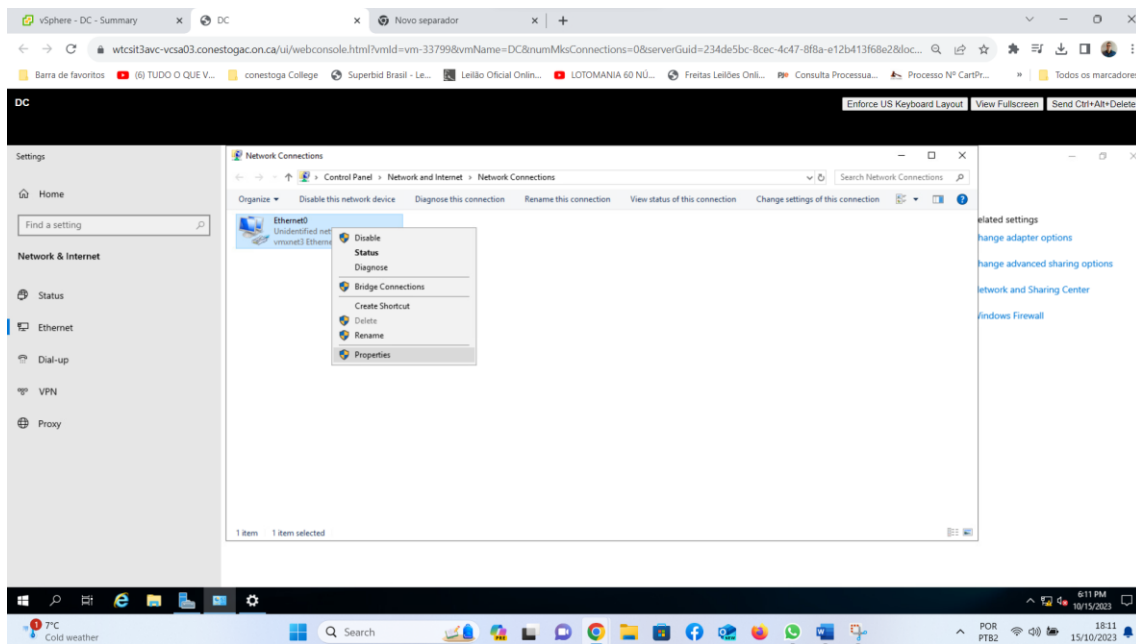
Go to the left of the select ethernet screen



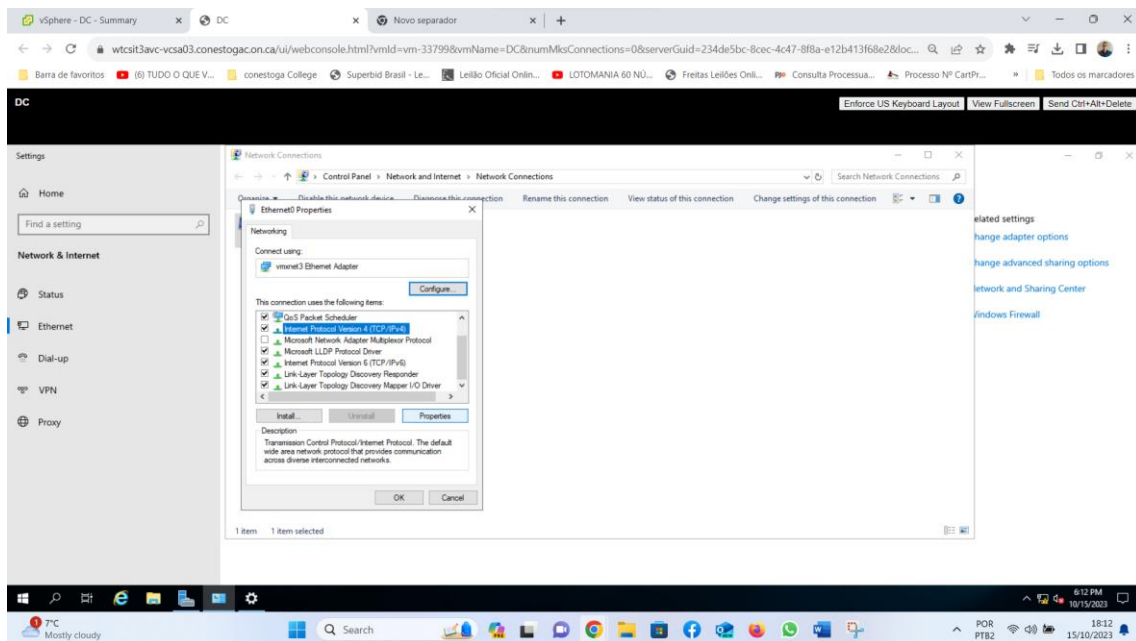
on the right side of the screen click on change adapter Options.



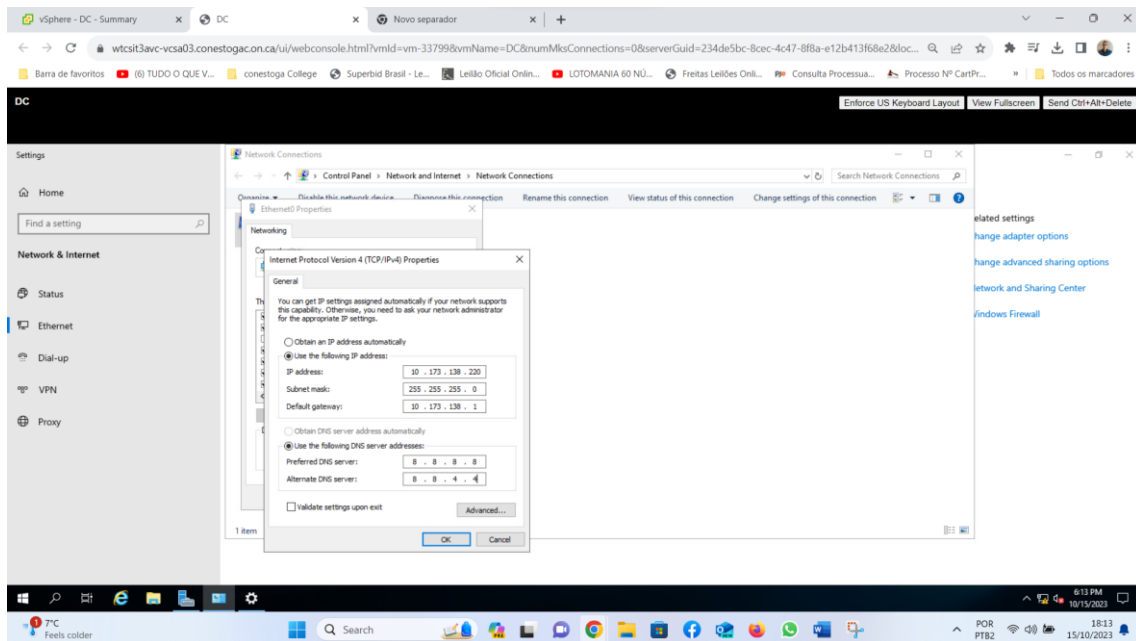
Right click on ethernet0, then click properties



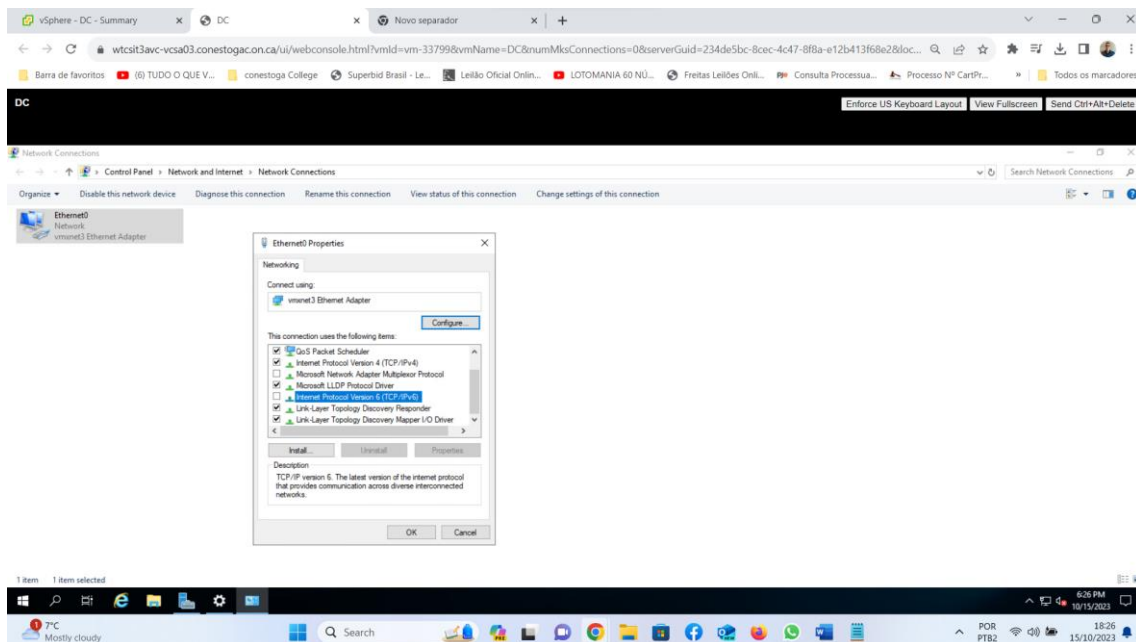
Go to Internet Protocol Version 4(TCP/IP), then select properties.



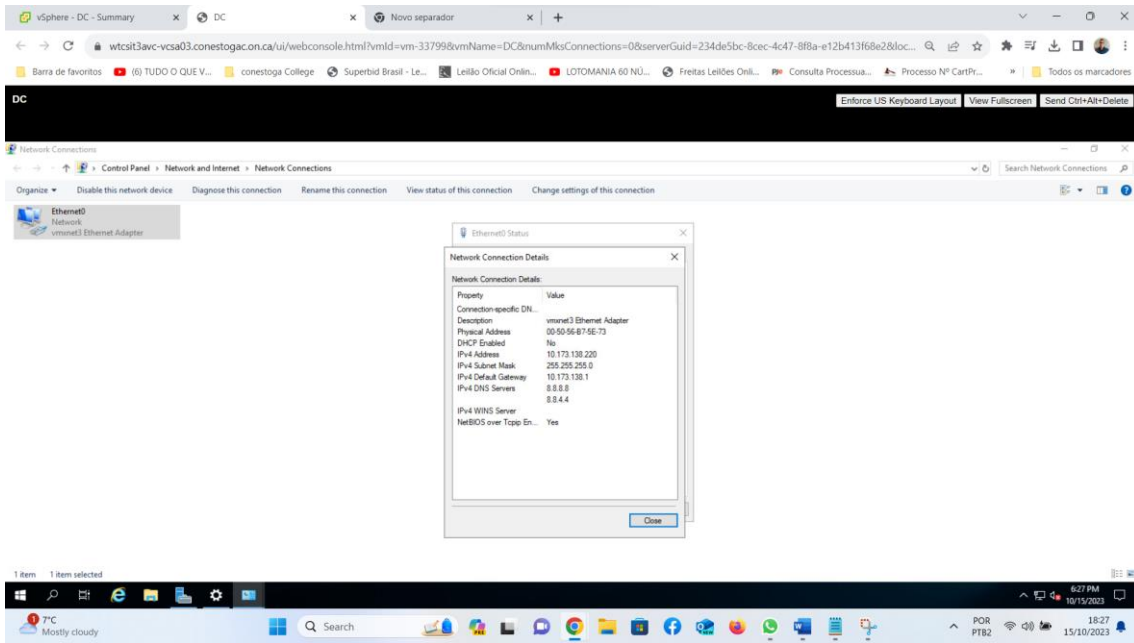
Ip address I chose 10.173.138.220/24 and gateway from my student subnet. and select google dns. Just click ok



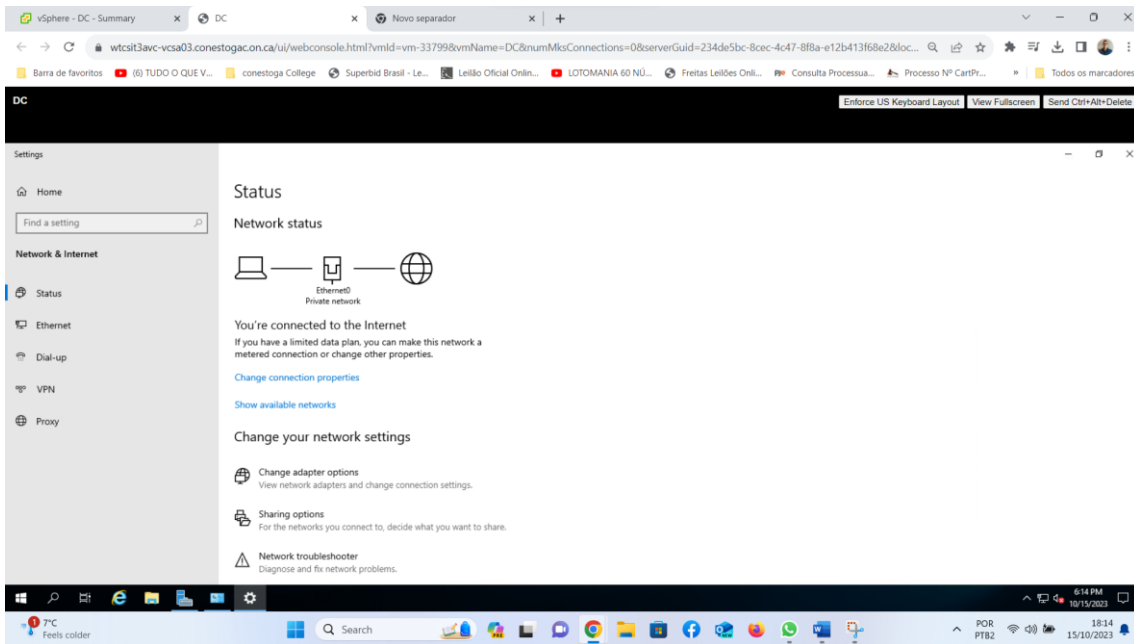
Uncheck IPv6. click ok.

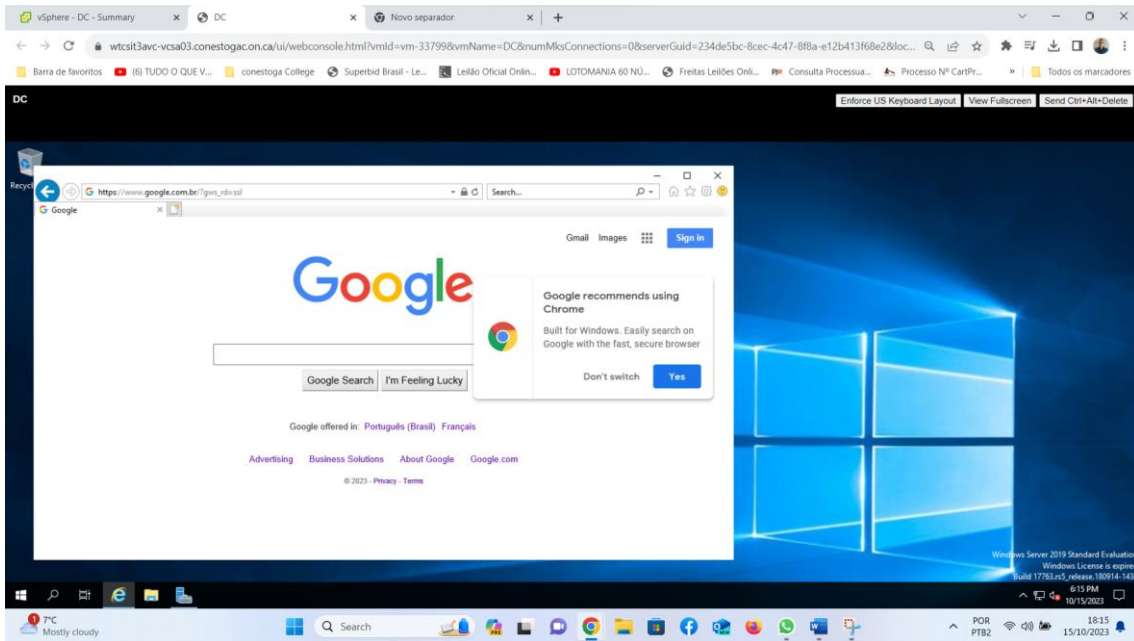


in this image in summary manually configured IP address.



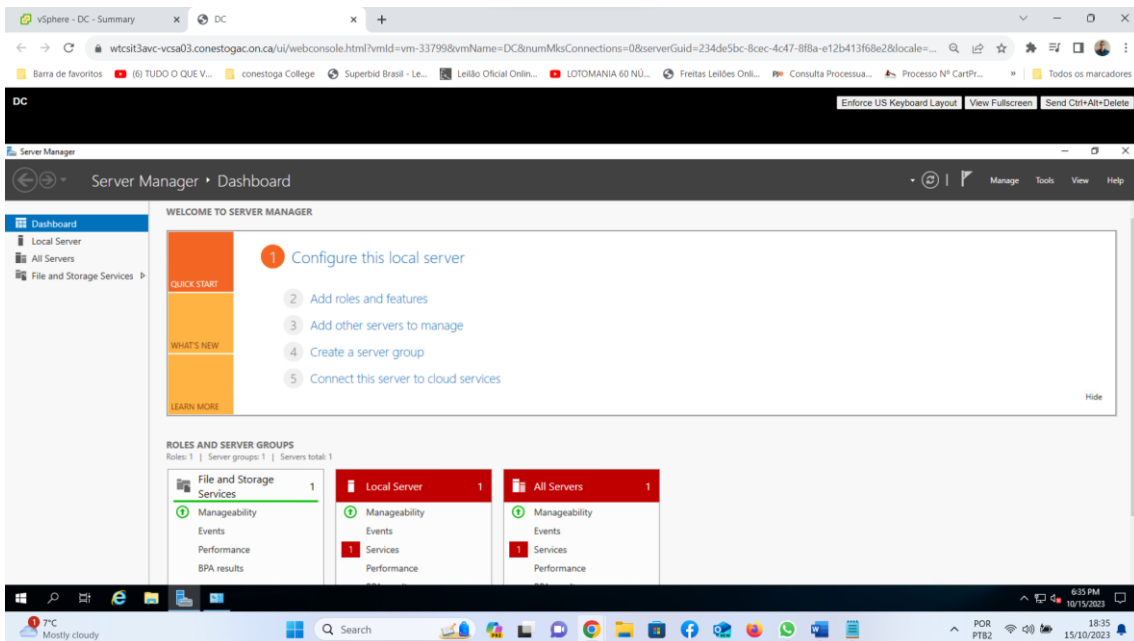
Readily configured, we then have access to the internet.



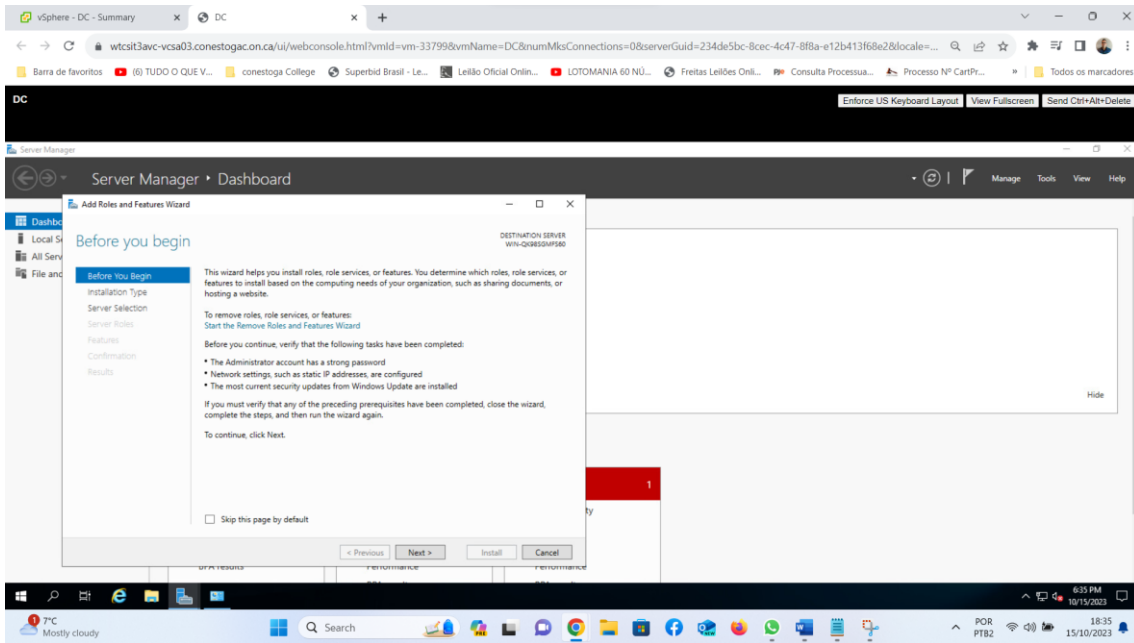


d- Add the Active Directory Domain Services (ADDS), DHCP and DNS on DC

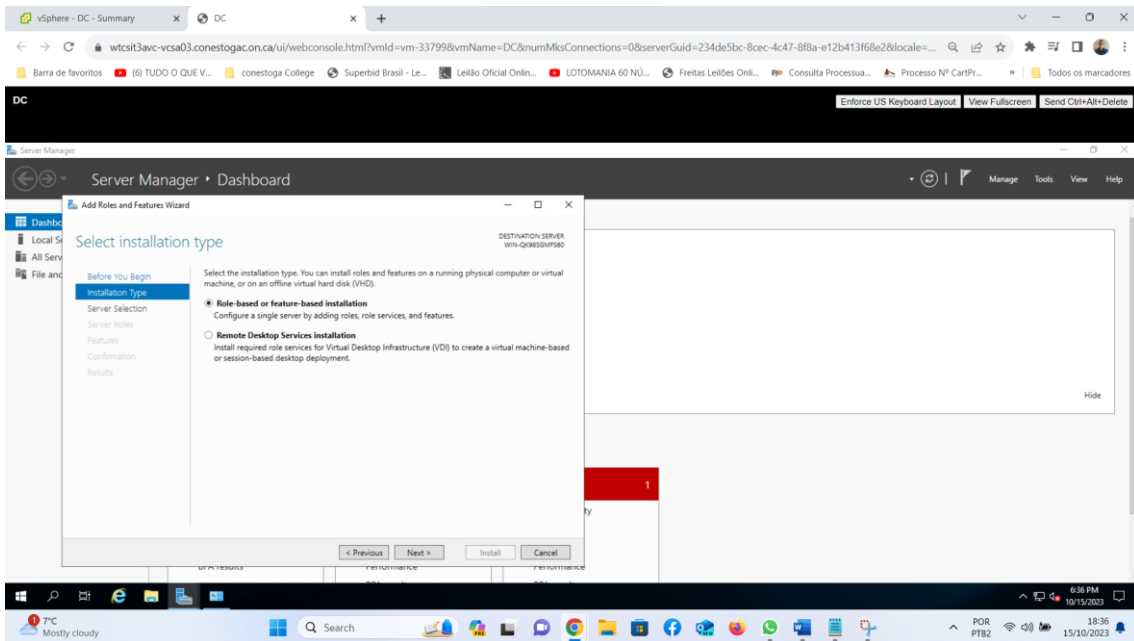
Let's go to server manager - dashboard. then click on Add roles and features.



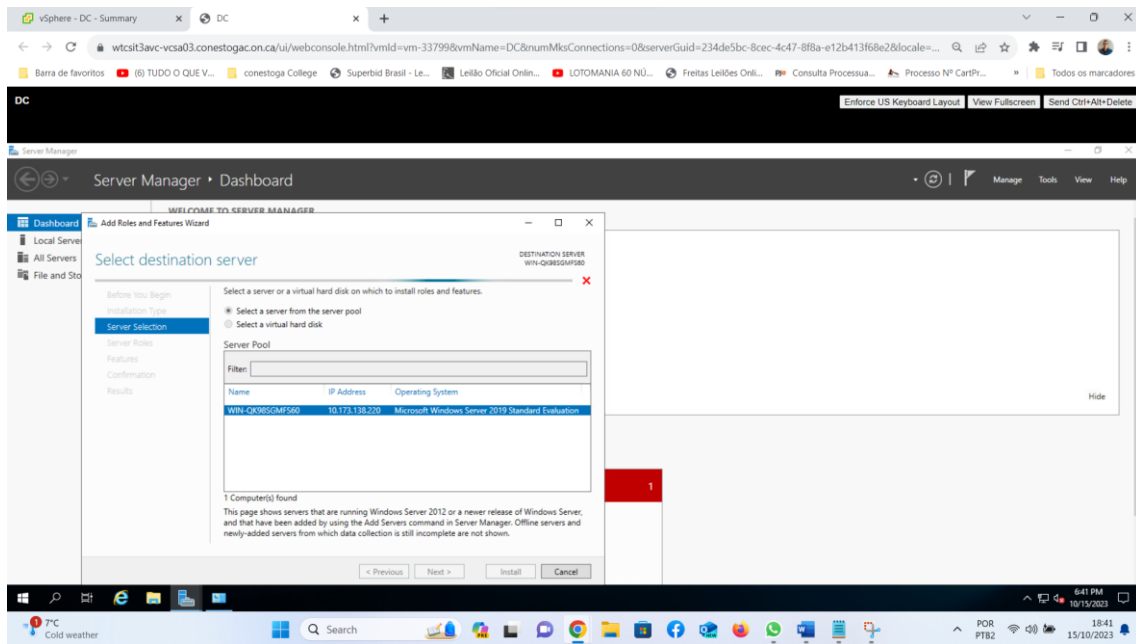
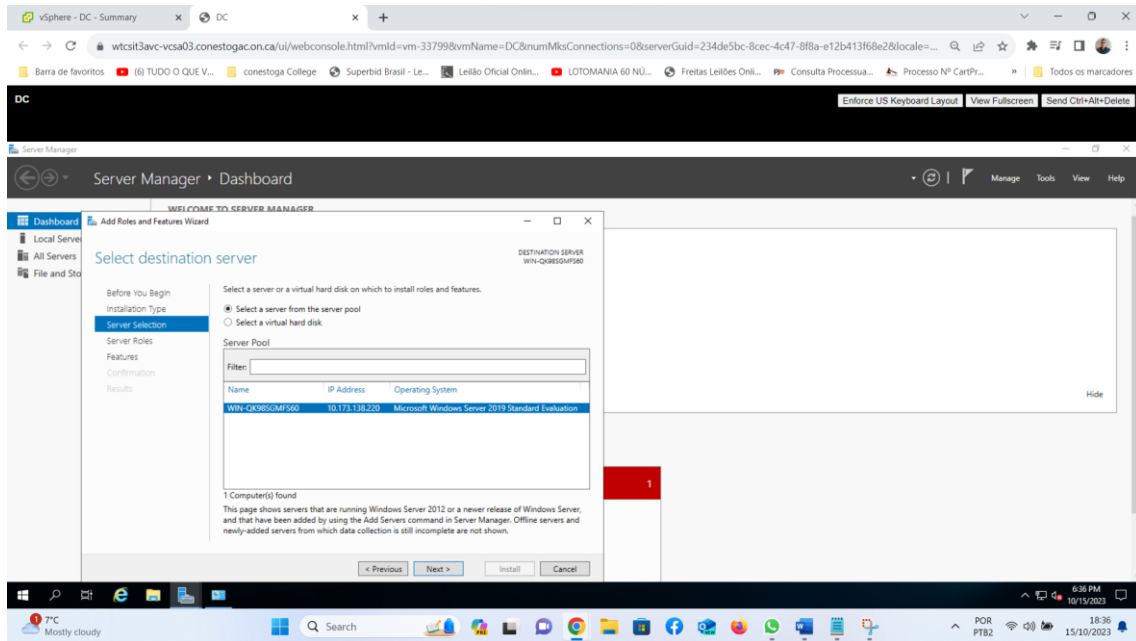
Select next



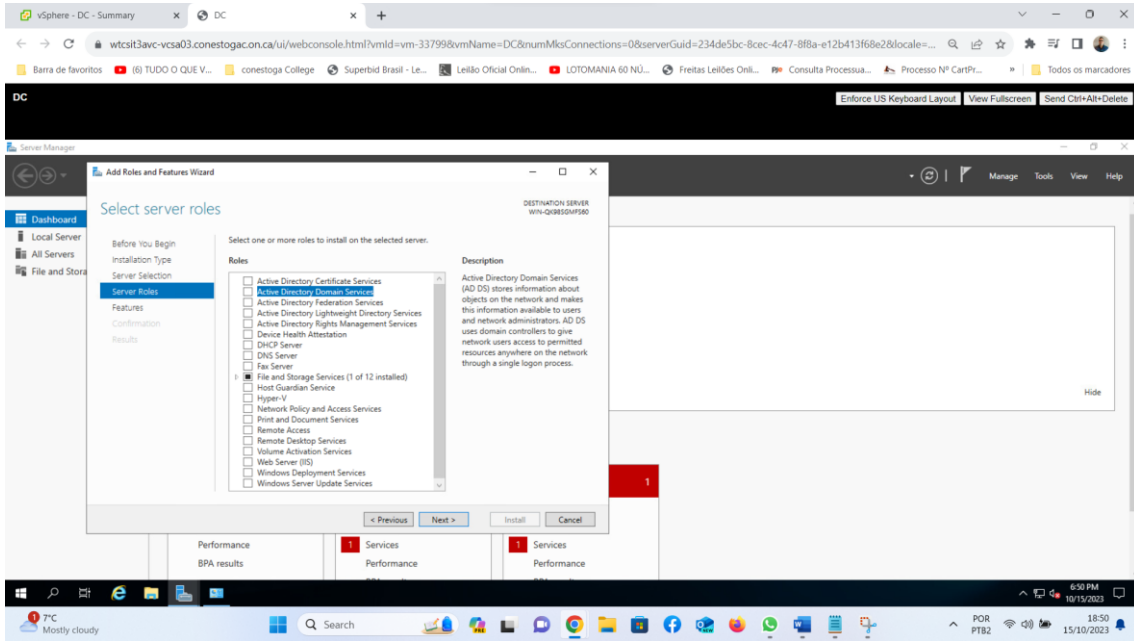
in installation type select roles-based or feature-based installation, then select next



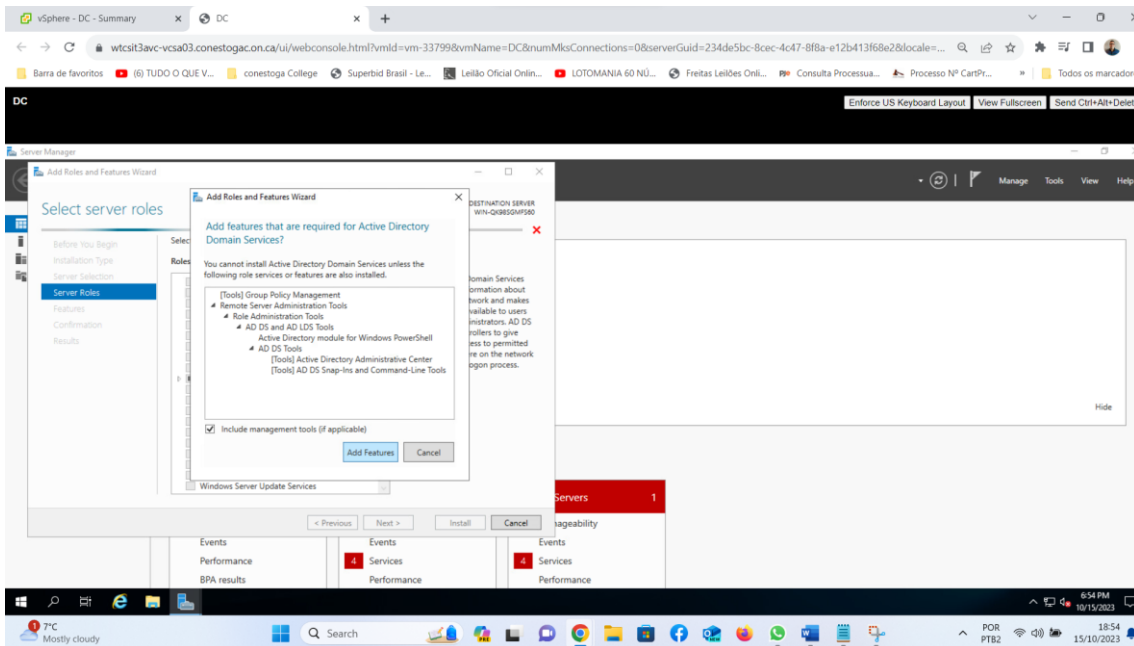
select a server from the server pool. we can see in ip address what I configured previously appears.



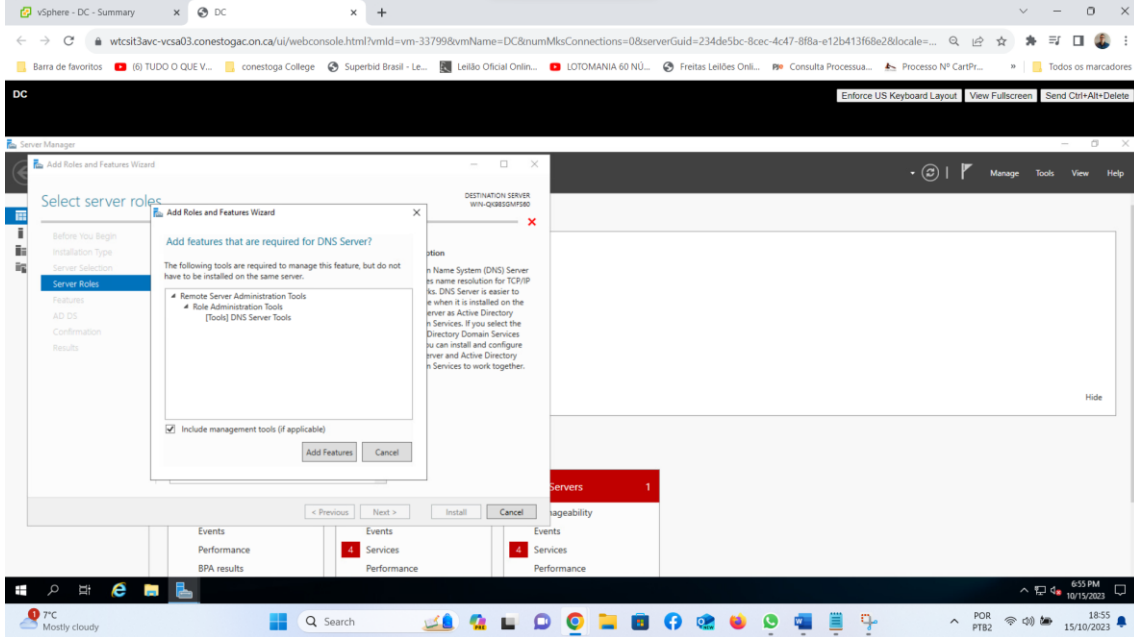
then select the required services. ADDS, DNS and DHCP



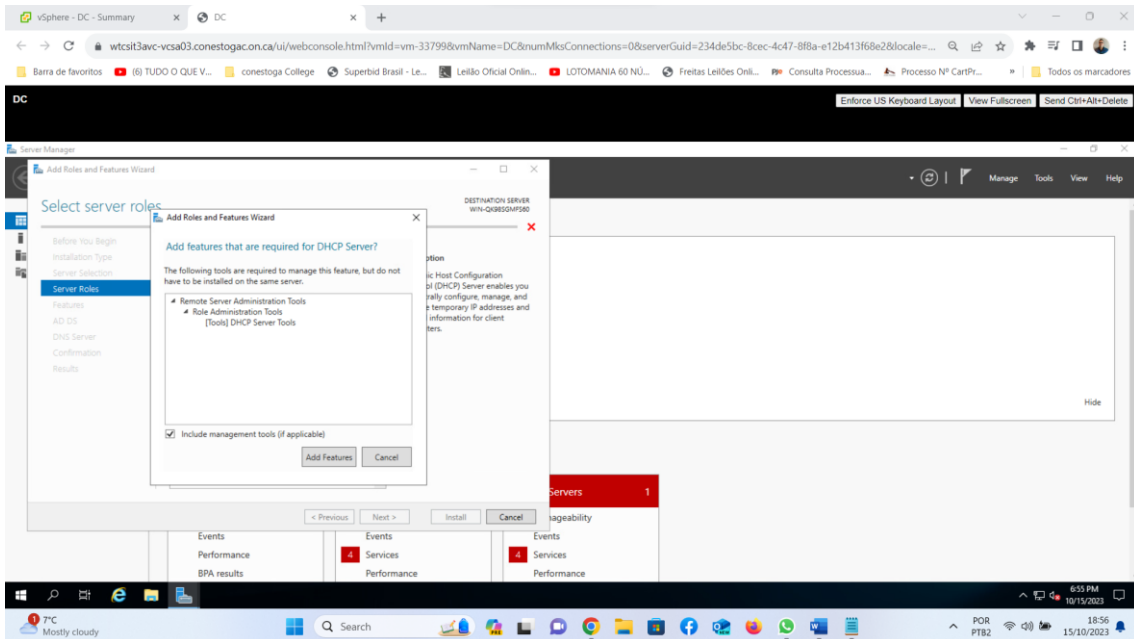
ADD Feature ADDS

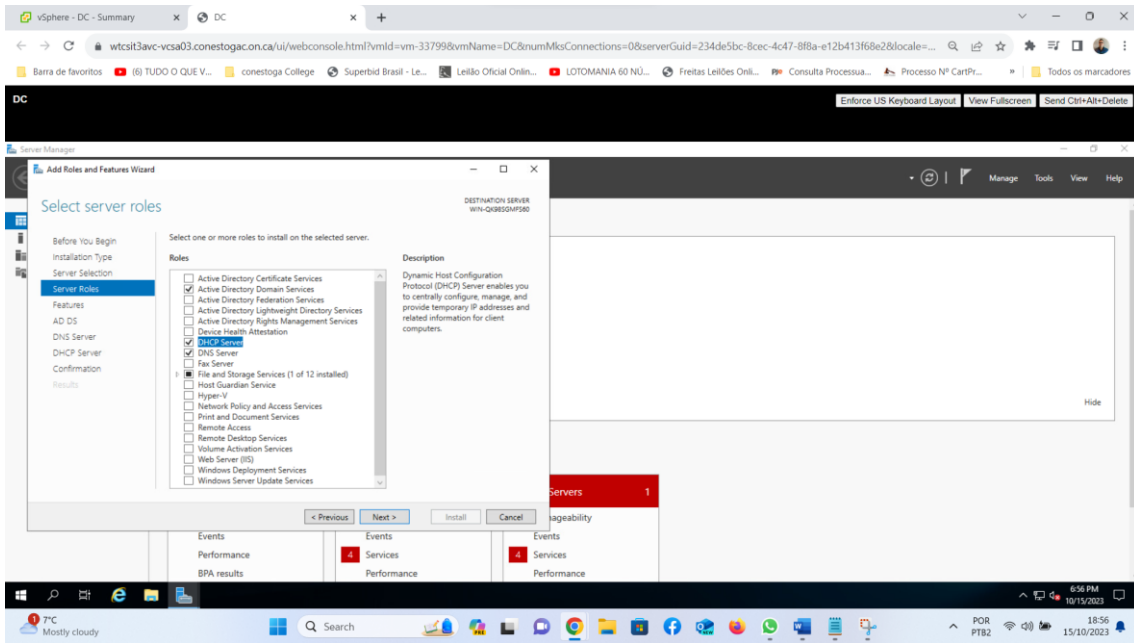


ADD Feature DNS

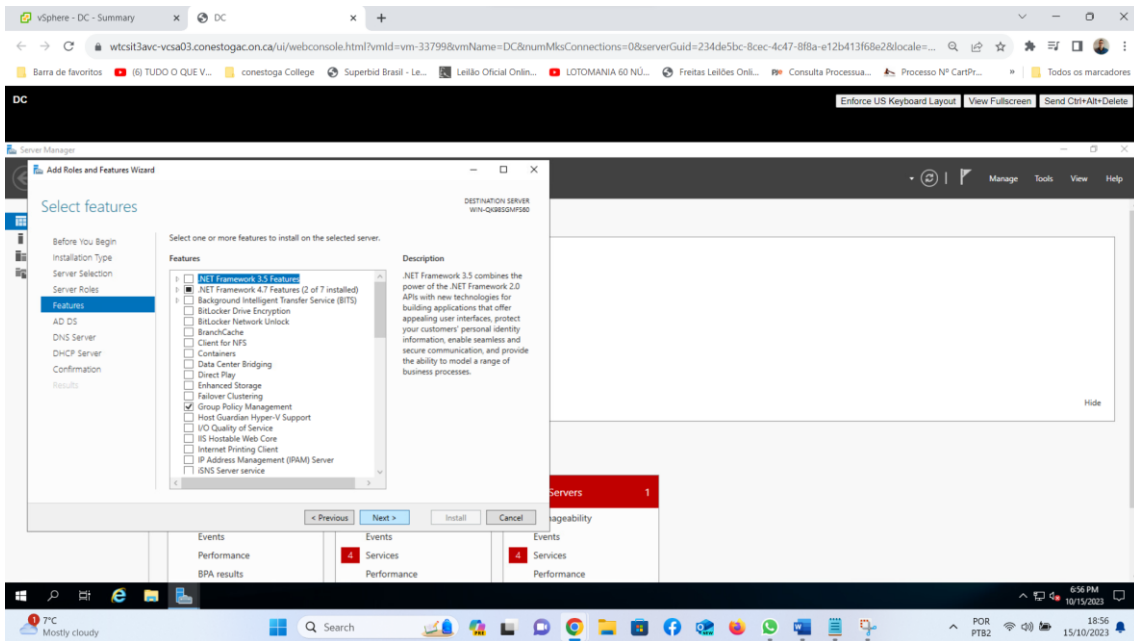


ADD Feature DHCP

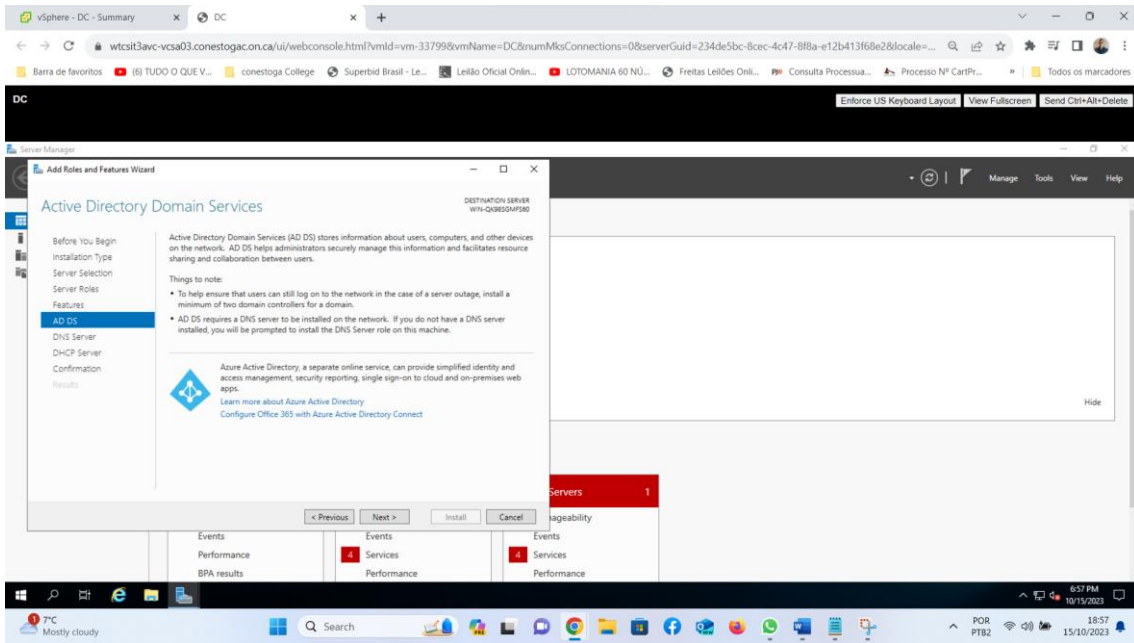




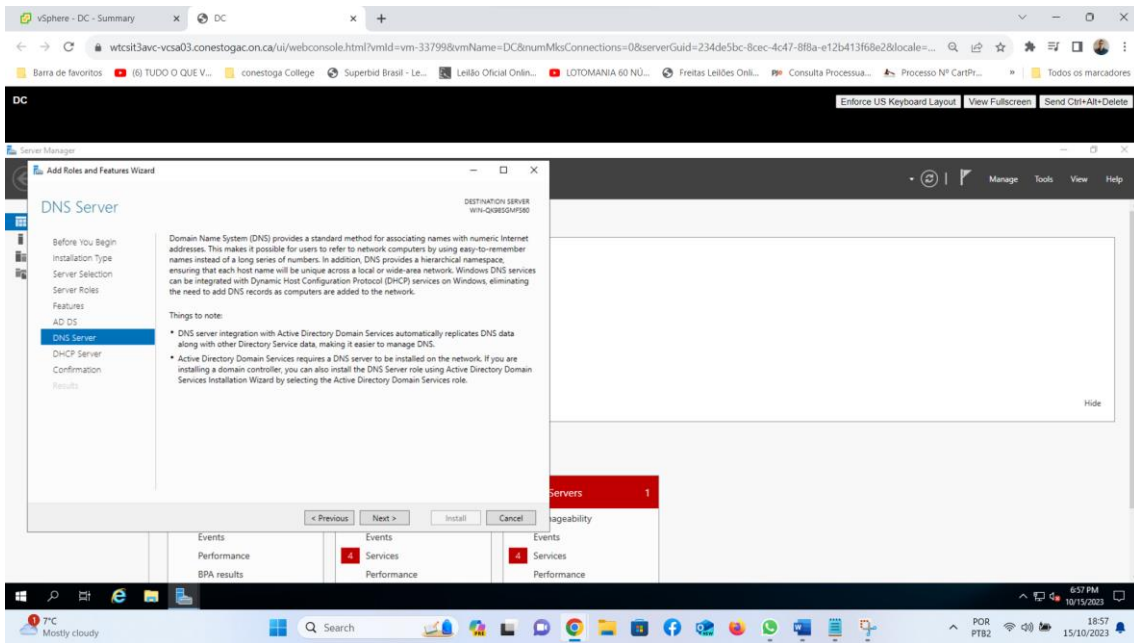
just in summary, confirming the services. select next



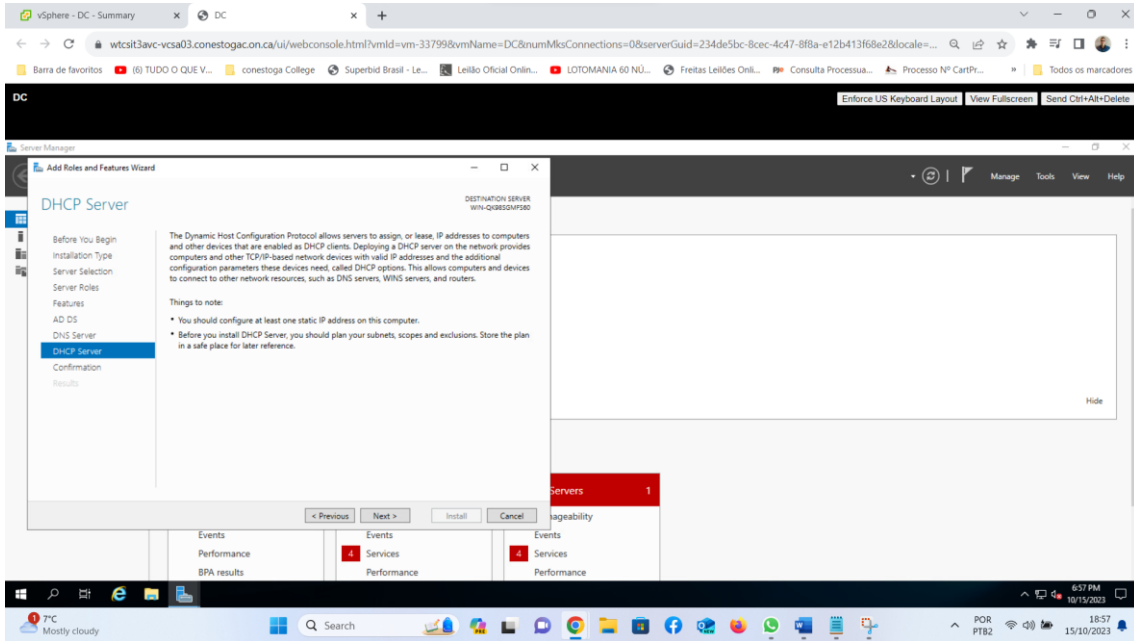
ADDS, click next.



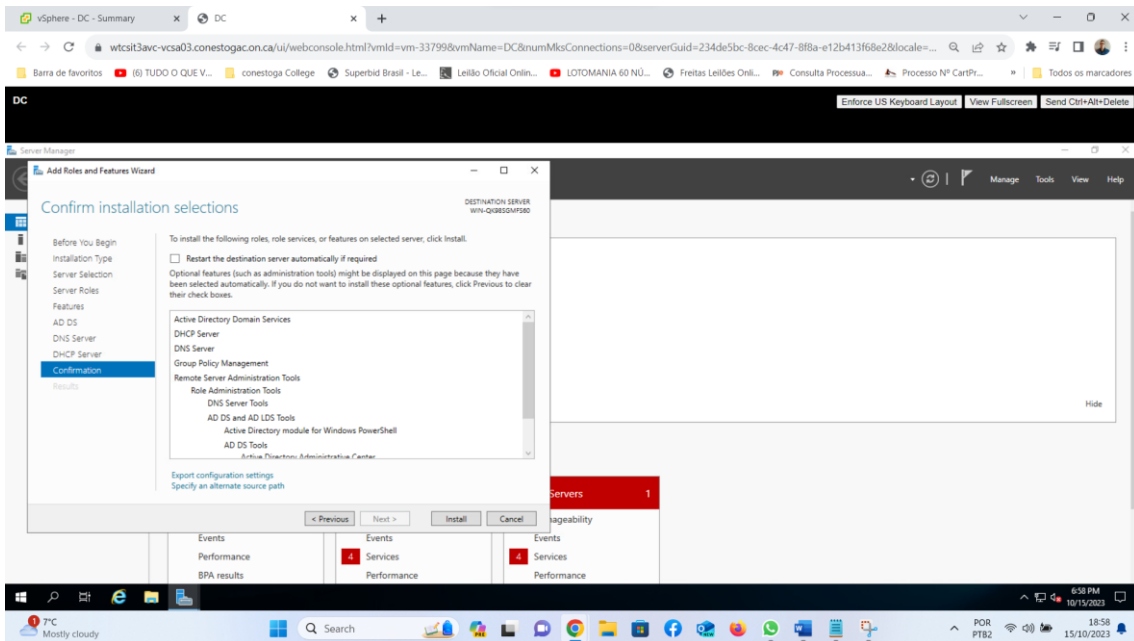
DNS click next.



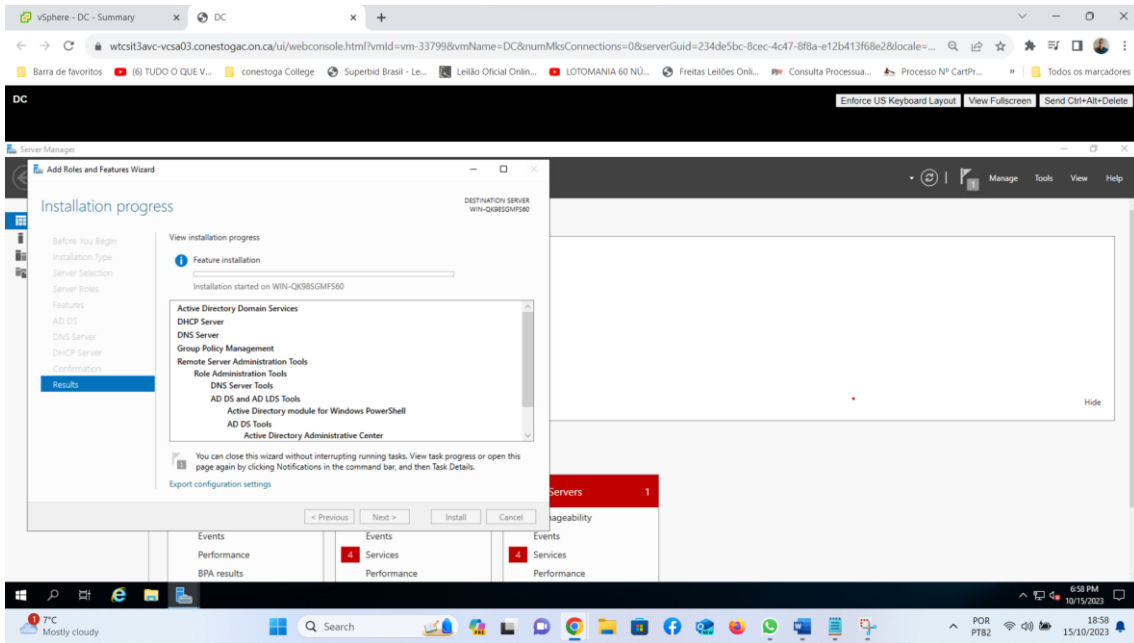
DHCP Server , Click Next



Confirmations only, select install

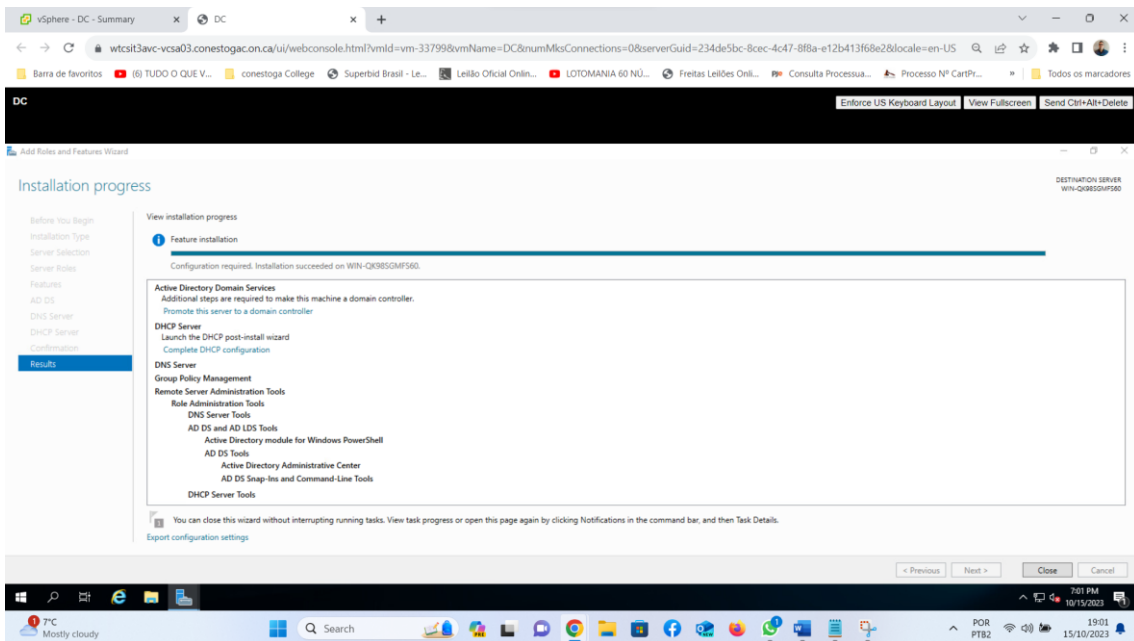


now installation in progress

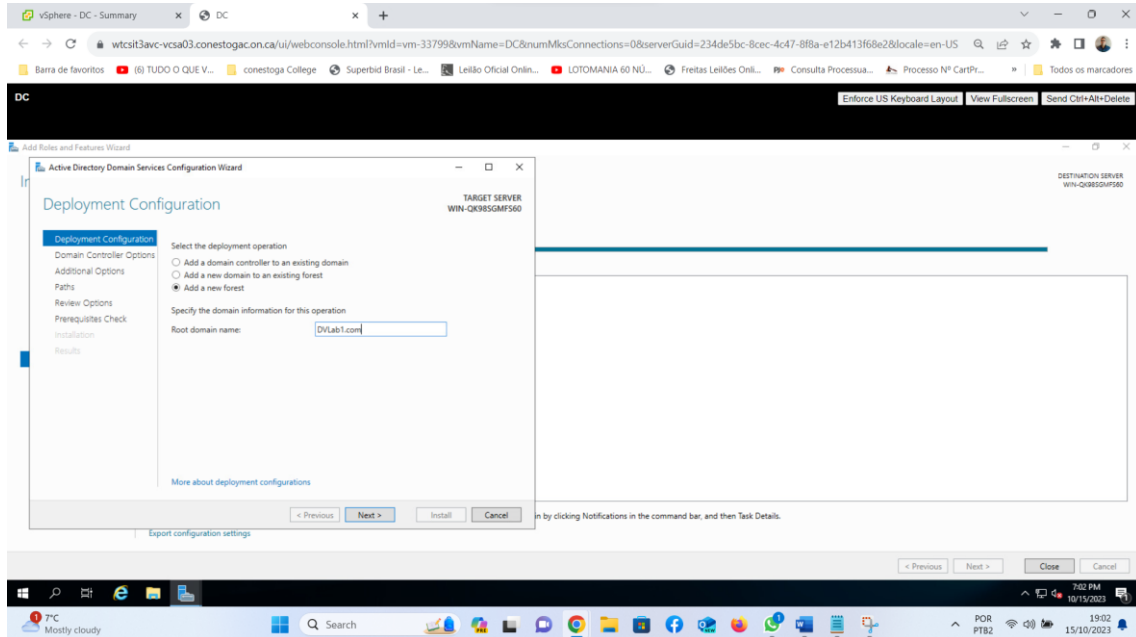


e- Promote this VM as Domain Controller and configure your first domain as DVLab1.com

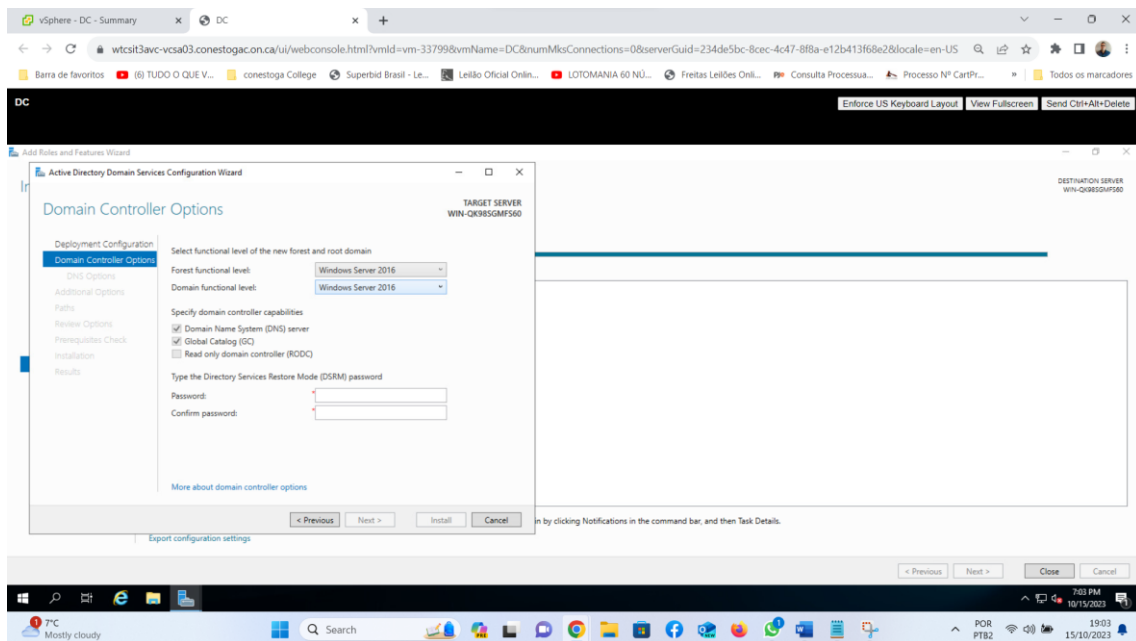
Click on this Promotion server to a domain controller



Click ADD a new forest, in root domain – typing DVlab1.com. Select Next



Just type Password and confirmation password. In this case Secret55



Click Next

The screenshot shows the 'Active Directory Domain Services Configuration Wizard' in the 'Domain Controller Options' step. The wizard is titled 'Domain Controller Options' and is for a 'TARGET SERVER WIN-0K98G6MF560'. The left sidebar contains a navigation pane with the following items: Deployment Configuration, Domain Controller Options (selected), DNS Options, Additional Options, Paths, Review Options, Prerequisites Check, Installation, and Results. The main area contains the following configuration options:

- Select functional level of the new forest and root domain:
 - Forest functional level: Windows Server 2016
 - Domain functional level: Windows Server 2016
- Specify domain controller capabilities:
 - Domain Name System (DNS) server
 - Global Catalog (GC)
 - Read only domain controller (RODC)
- Type the Directory Services Restore Mode (DSRM) password:
 - Password: [masked]
 - Confirm password: [masked]

At the bottom, there are buttons for '< Previous', 'Next >', 'Install', and 'Cancel'. Below the wizard, a Windows taskbar is visible with the system tray showing the time as 7:03 PM on 10/15/2023.

Just Click Next

The screenshot shows the 'Active Directory Domain Services Configuration Wizard' in the 'Additional Options' step. The wizard is titled 'Additional Options' and is for a 'TARGET SERVER WIN-0K98G6MF560'. The left sidebar contains a navigation pane with the following items: Deployment Configuration, Domain Controller Options, DNS Options, Additional Options (selected), Paths, Review Options, Prerequisites Check, Installation, and Results. The main area contains the following configuration options:

- Verify the NetBIOS name assigned to the domain and change it if necessary:
 - The NetBIOS domain name: DVLAB1

At the bottom, there are buttons for '< Previous', 'Next >', 'Install', and 'Cancel'. Below the wizard, a Windows taskbar is visible with the system tray showing the time as 7:04 PM on 10/15/2023.

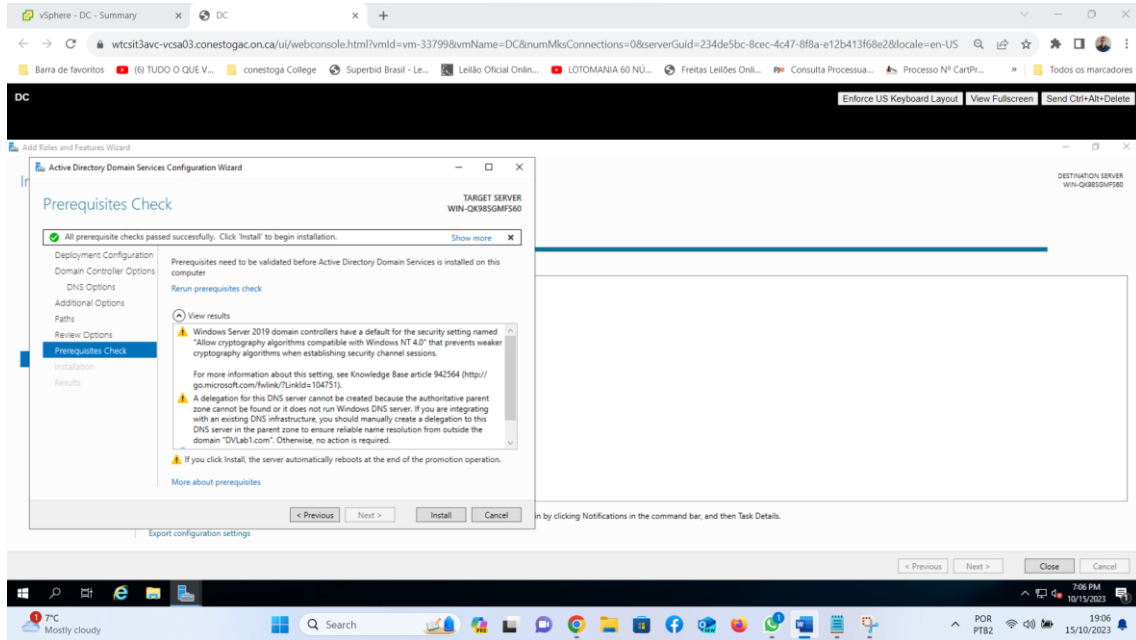
Click Next

The screenshot shows the 'Active Directory Domain Services Configuration Wizard' in the 'Paths' step. The wizard is titled 'Active Directory Domain Services Configuration Wizard' and is running on a 'TARGET SERVER' named 'WIN-QK985GMF560'. The left sidebar contains the following steps: Deployment Configuration, Domain Controller Options, DNS Options, Additional Options, Paths (selected), Review Options, Prerequisites Check, Installation, and Results. The main area is titled 'Specify the location of the AD DS database, log files, and SYSVOL'. It contains three input fields: 'Database folder' with the value 'C:\Windows\NTDS', 'Log files folder' with the value 'C:\Windows\NTDS', and 'SYSVOL folder' with the value 'C:\Windows\SYSVOL'. At the bottom, there are buttons for '< Previous', 'Next >', 'Install', and 'Cancel'. Below the wizard, there is a small text box that says 'by clicking Notifications in the command bar, and then Task Details.' The taskbar at the bottom shows the system tray with the date '15/10/2023' and time '19:05'.

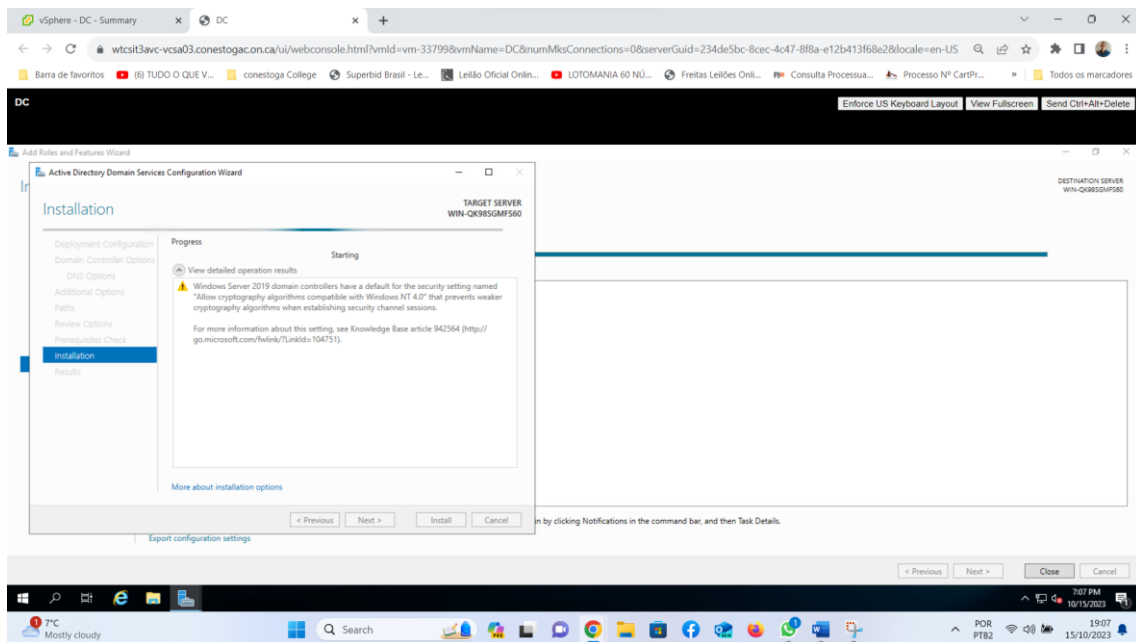
Reviews, click Next

The screenshot shows the 'Active Directory Domain Services Configuration Wizard' in the 'Review Options' step. The wizard is titled 'Active Directory Domain Services Configuration Wizard' and is running on a 'TARGET SERVER' named 'WIN-QK985GMF560'. The left sidebar contains the following steps: Deployment Configuration, Domain Controller Options, DNS Options, Additional Options, Paths, Review Options (selected), Prerequisites Check, Installation, and Results. The main area is titled 'Review your selections:' and contains the following text: 'Configure this server as the first Active Directory domain controller in a new forest. The new domain name is "DVLab1.com". This is also the name of the new forest. The NetBIOS name of the domain: DVLAB1. Forest Functional Level: Windows Server 2016. Domain Functional Level: Windows Server 2016. Additional Options: Global catalog: Yes. DNS Server: Yes. Create DNS Delegation: No. Below this text, there is a button labeled 'View script'. At the bottom, there are buttons for '< Previous', 'Next >', 'Install', and 'Cancel'. Below the wizard, there is a small text box that says 'by clicking Notifications in the command bar, and then Task Details.' The taskbar at the bottom shows the system tray with the date '15/10/2023' and time '19:05'.

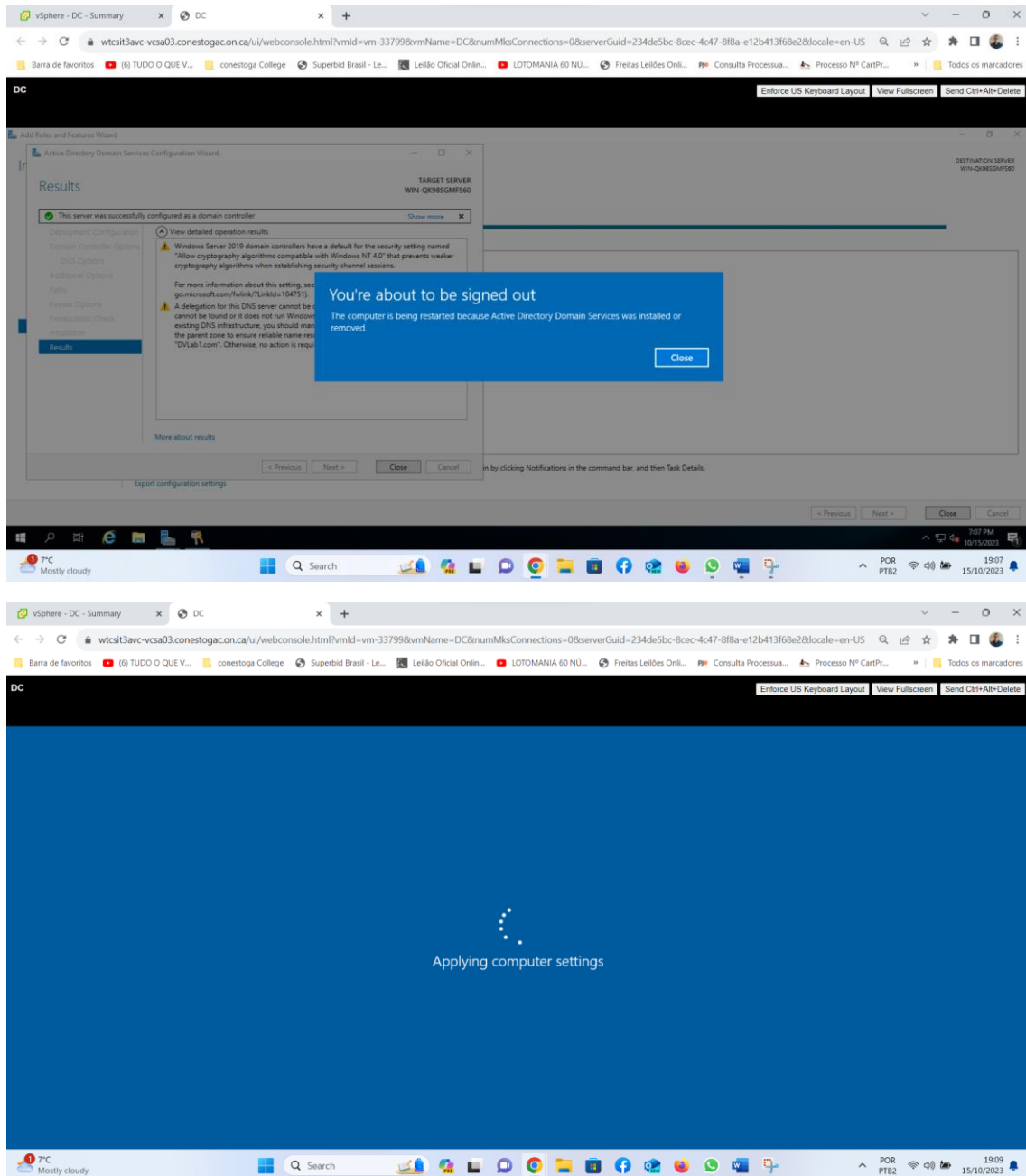
Click install



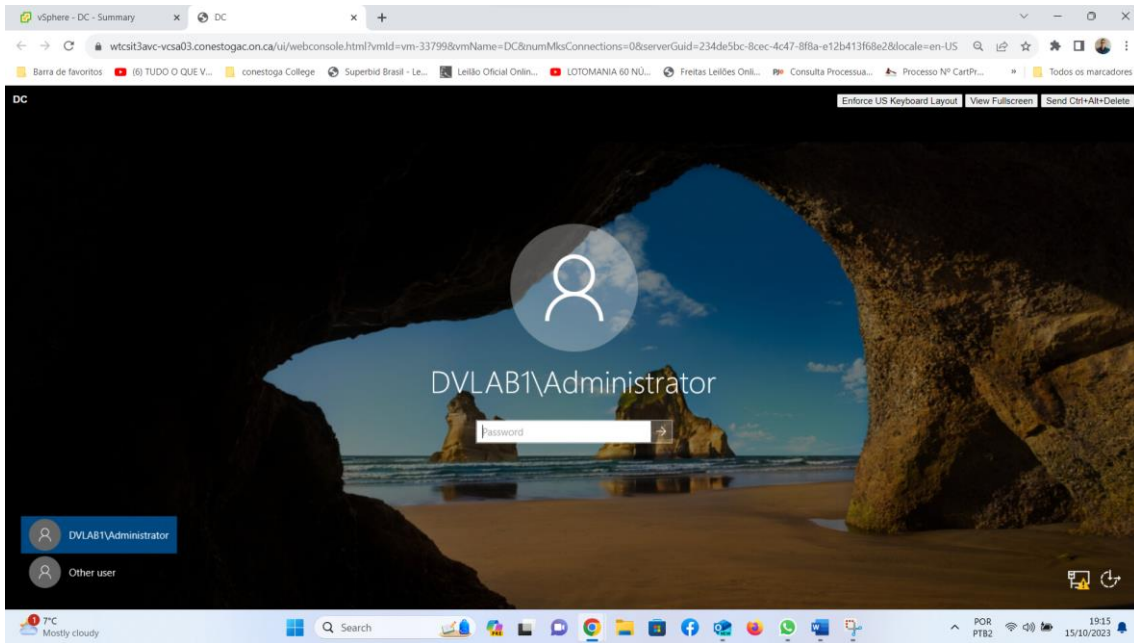
Now installation in progress.



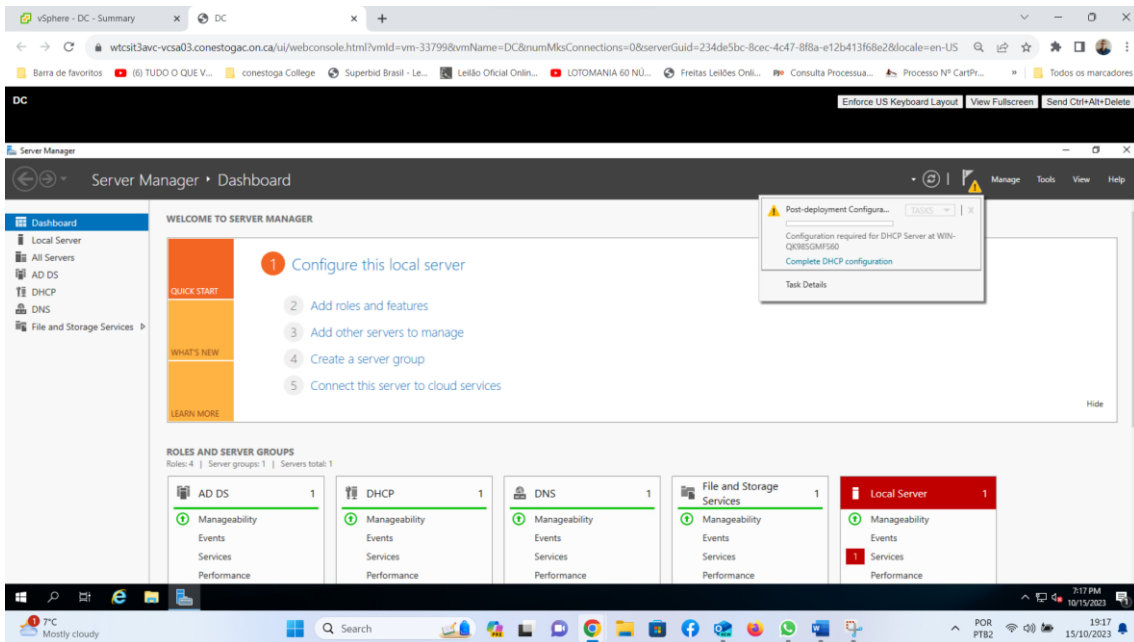
This image shows Domain controller has been installed and needs to be restarted.



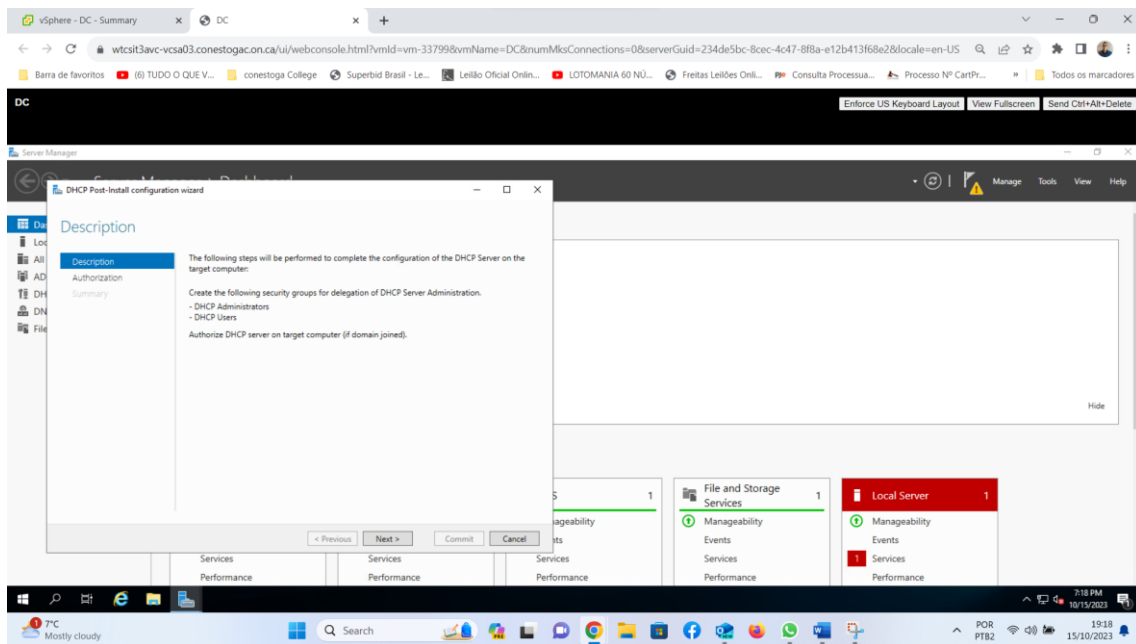
As we can see we now have a domain, DVLAB1. Just typing password.



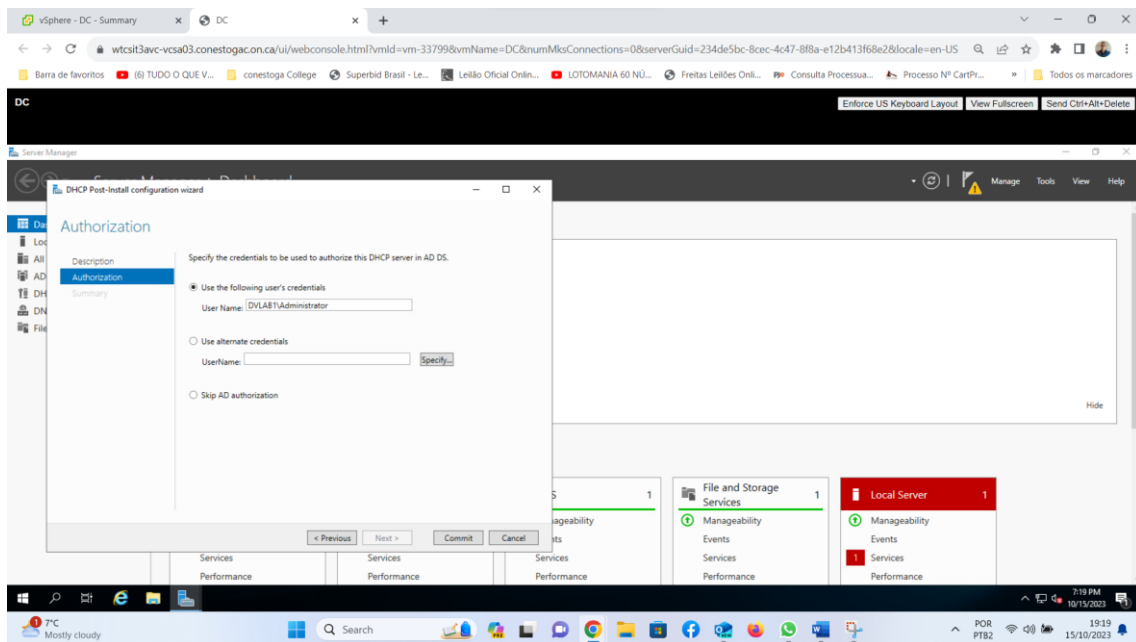
On the yellow flag just click on complete dhcp configuration.



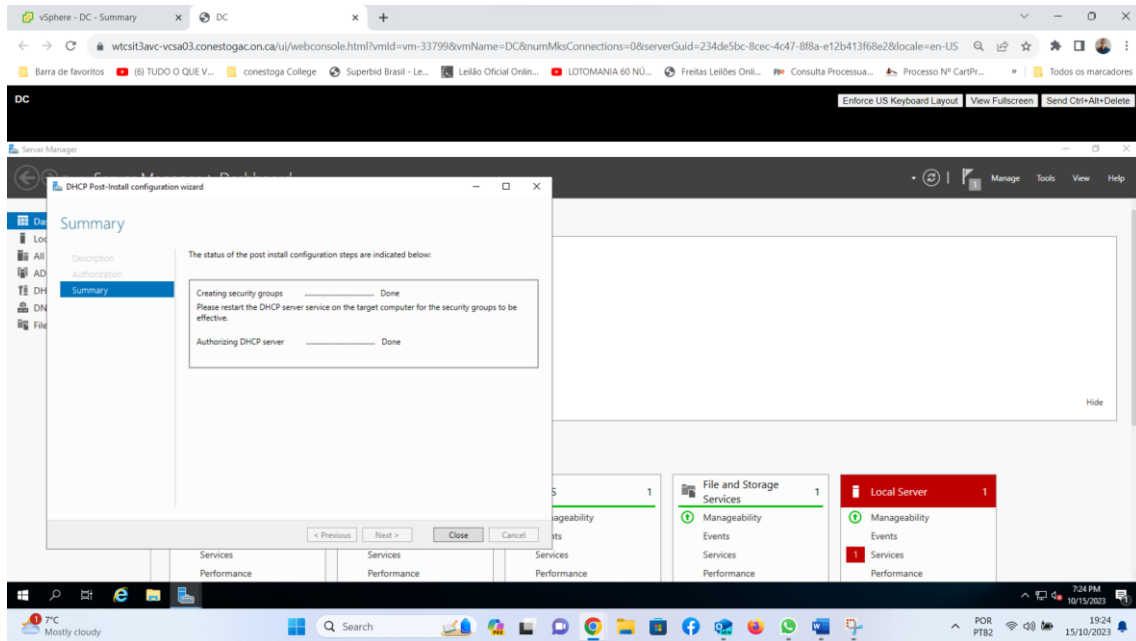
Select Next to install DHCP server



Check mark on frist option. Click commit

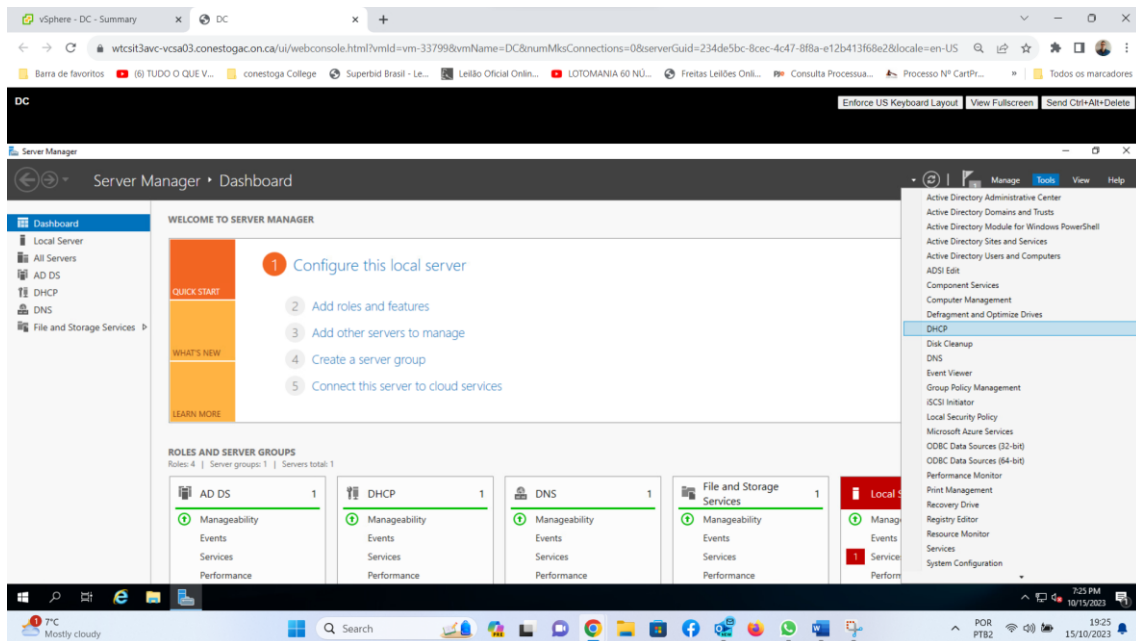


DCHP has been created.

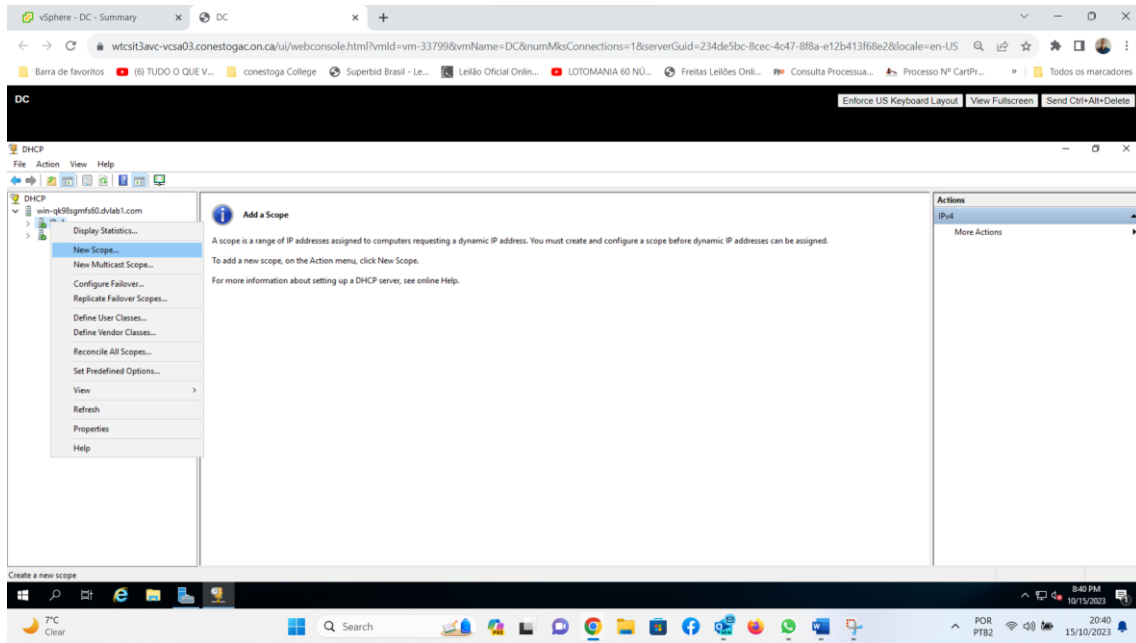


f- Complete DHCP configuration and create new scope for 10 machines.

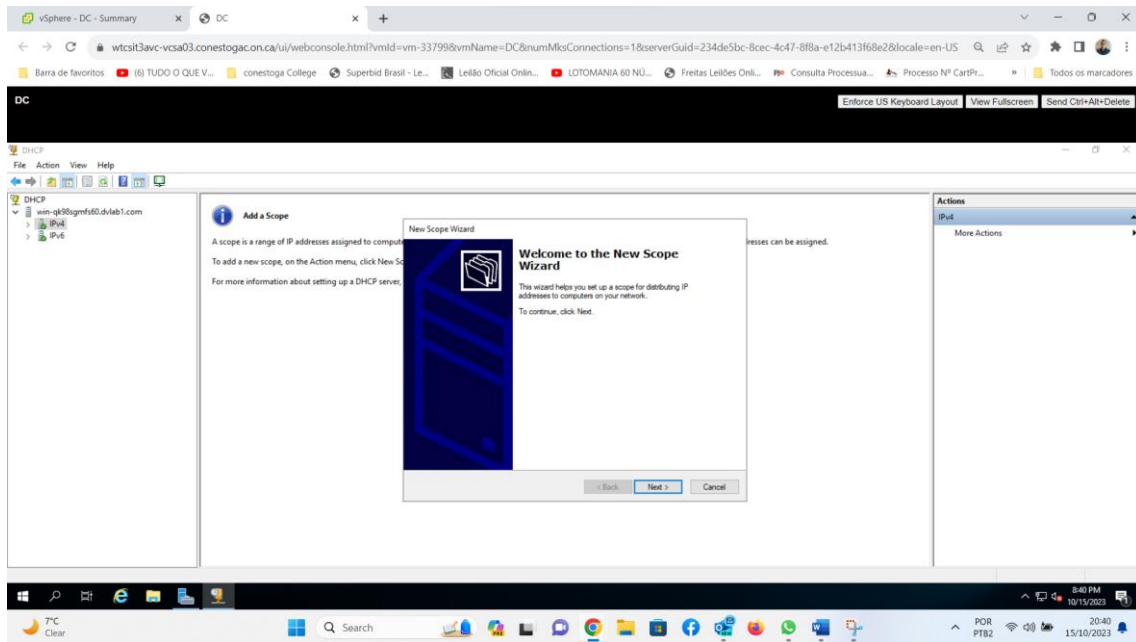
Click on tools, go to DHCP



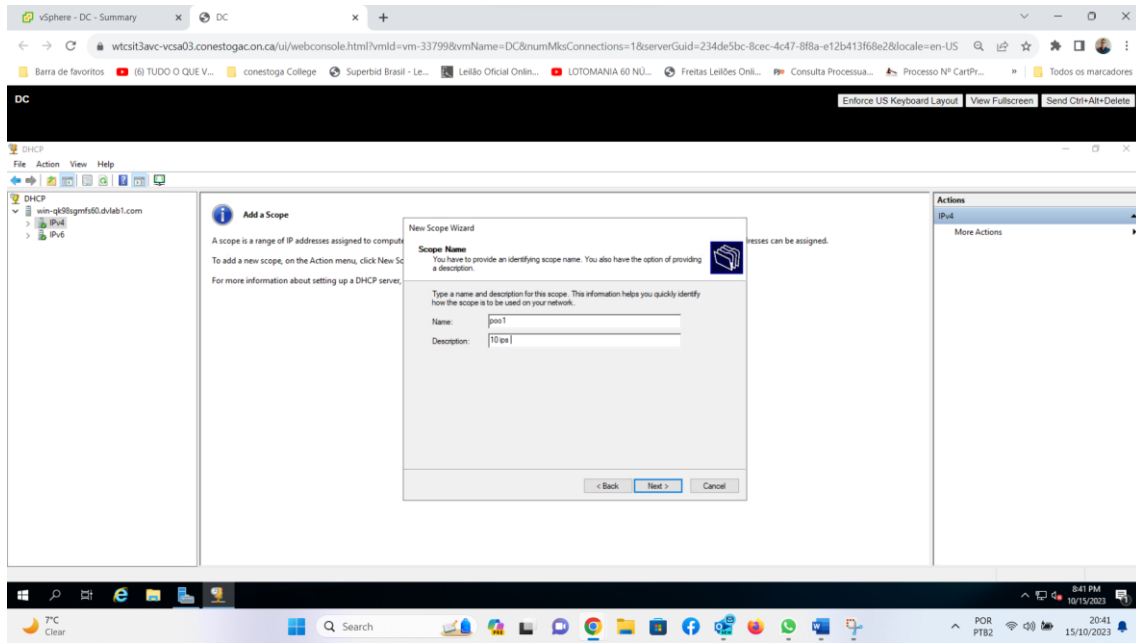
select ipv4 and click on the right mouse, go to new scope.



Select Next.

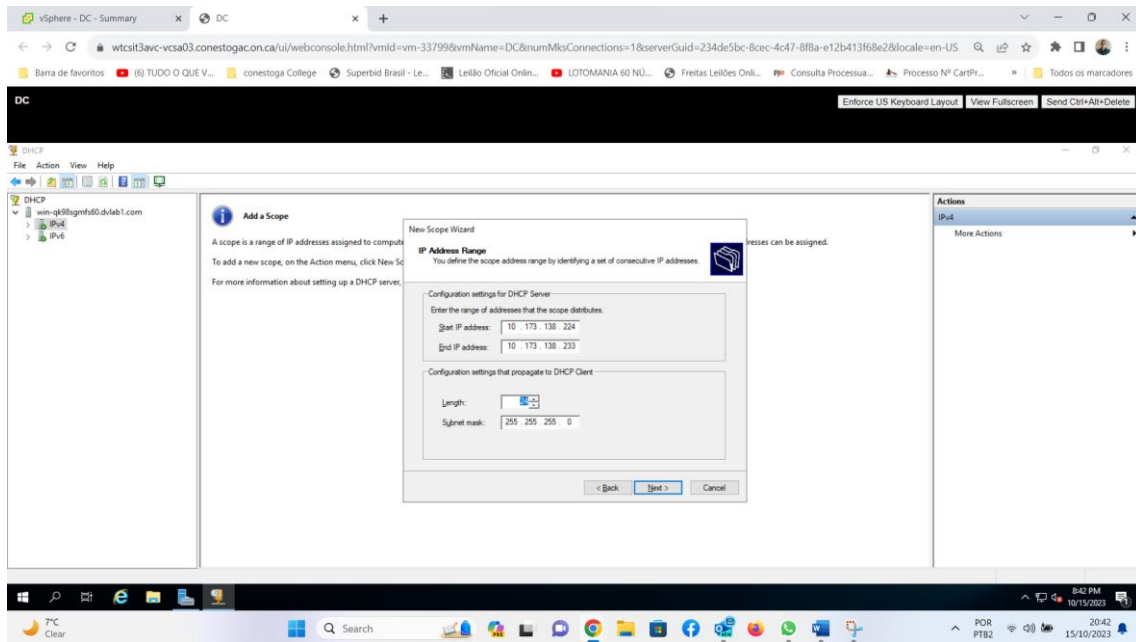


in name I type pool1 and description I put 10 ips. click next

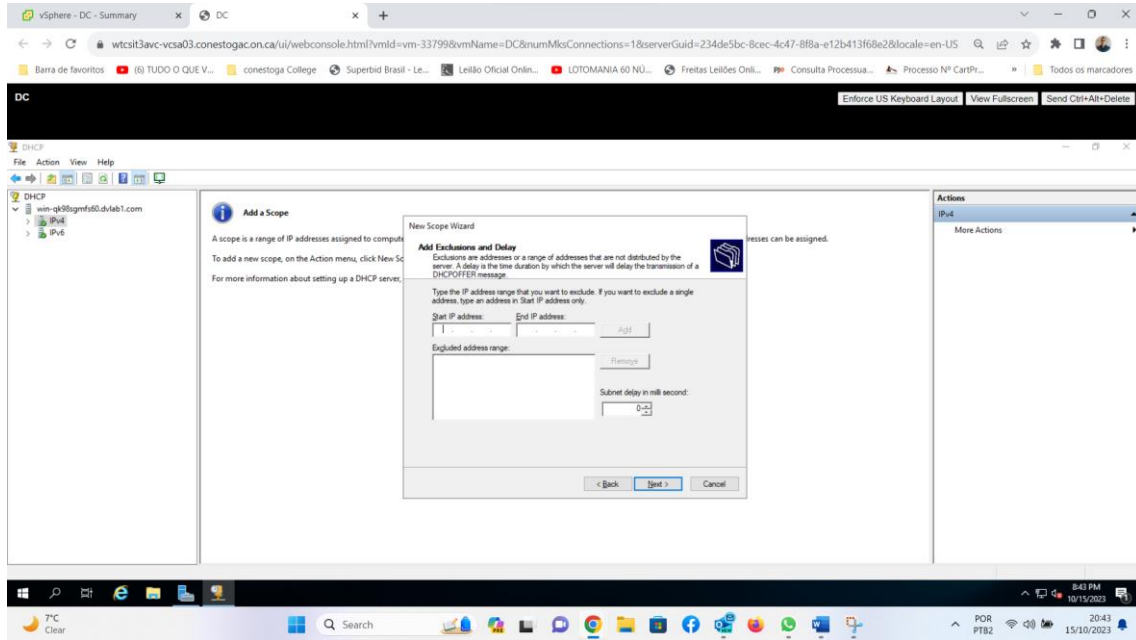


in start, select the first ip address in the range. in this case I chose to start at 10.173.138.224 and end ip address 10.173.138.233.

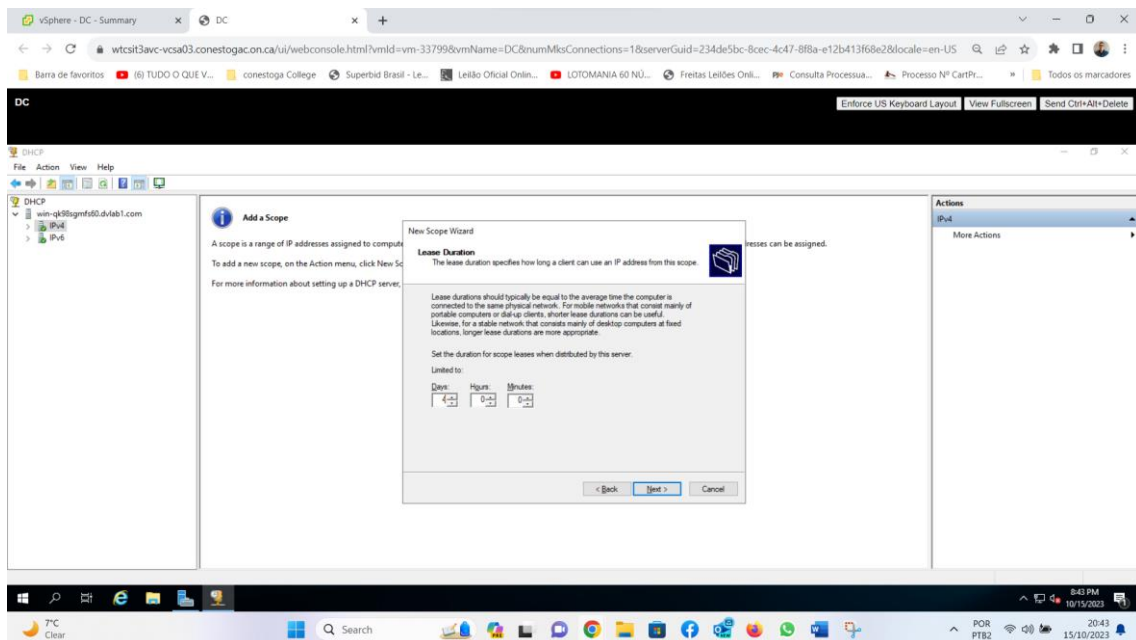
in Length in this case 24. because sub mask 255.255.255.0



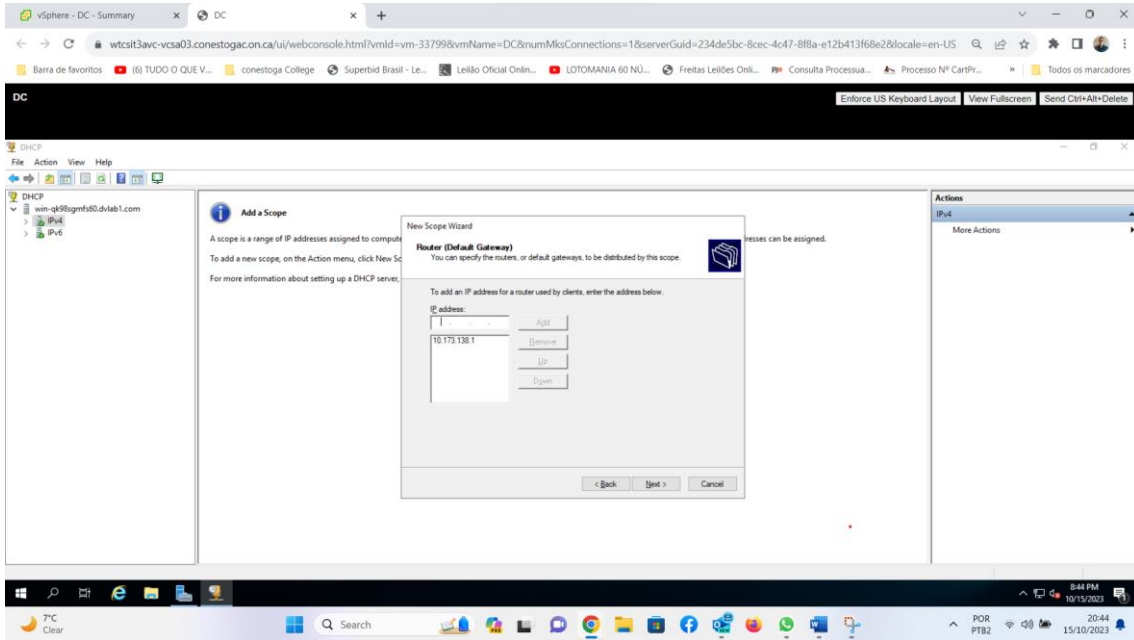
Just Click Next



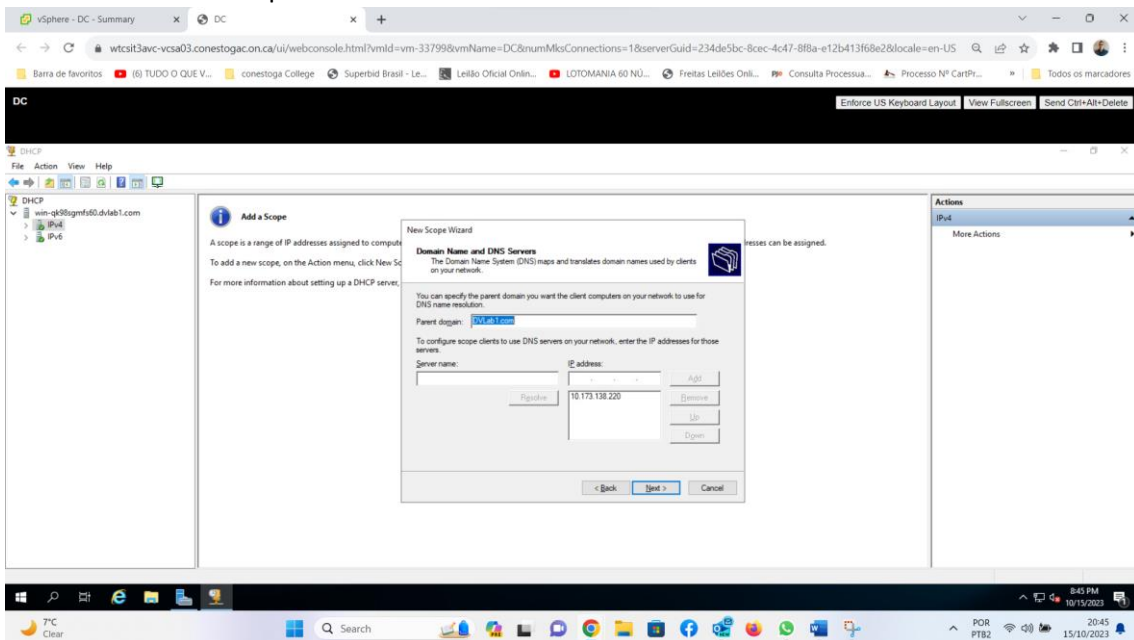
In this part, only the duration of the IP concession. by default comes 8. but I chose 4 days, click next



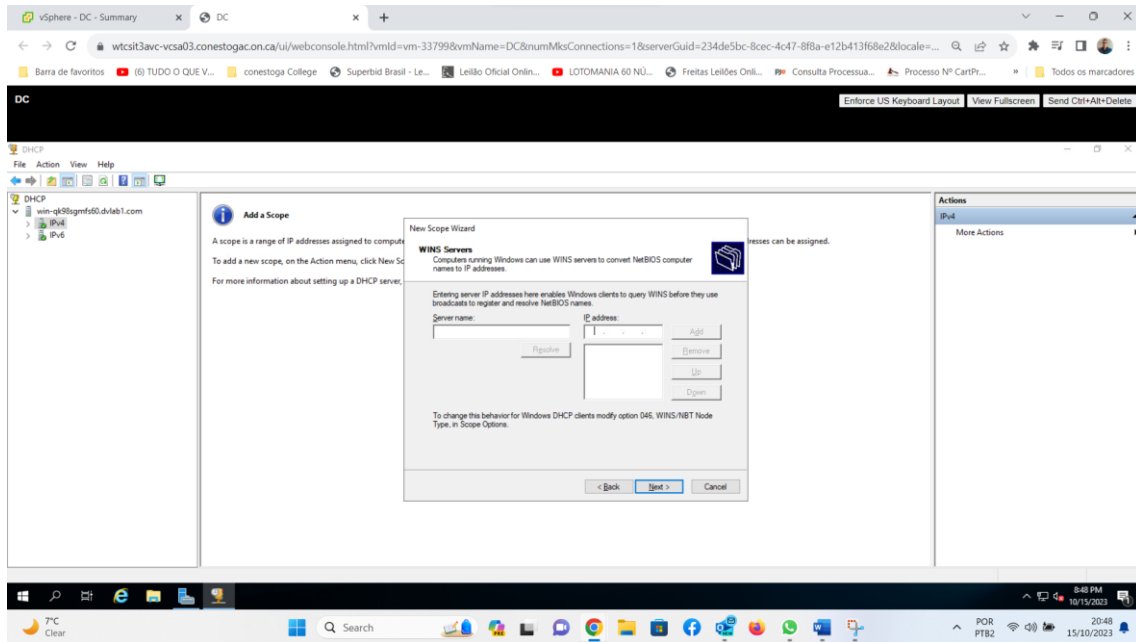
in this part ip address of my subnet. in this case 10.173.138.1.,



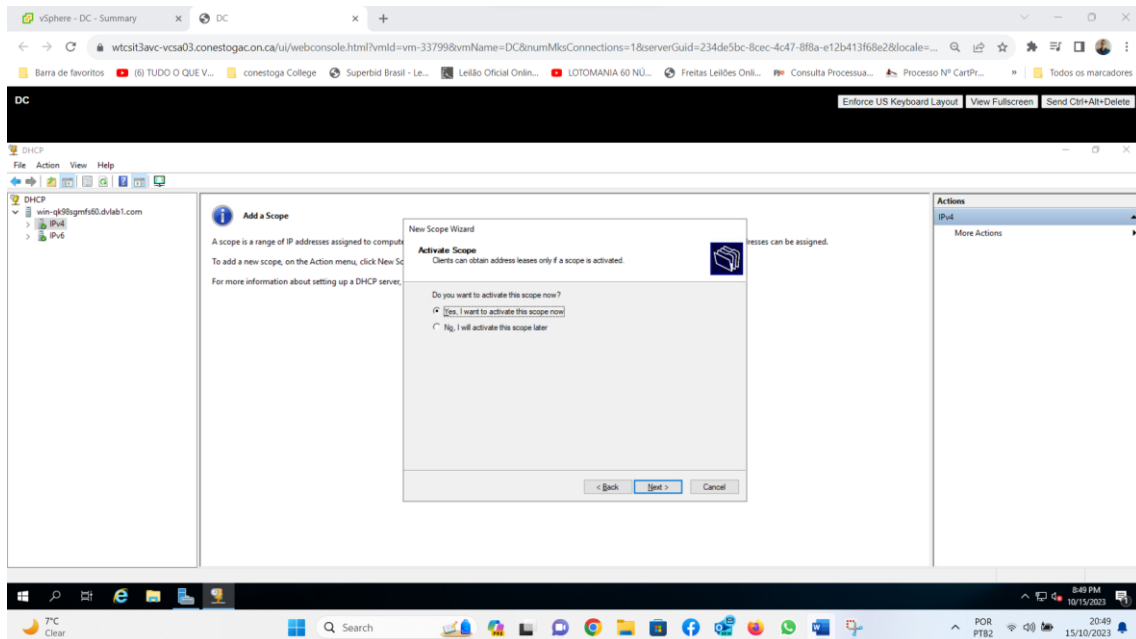
In this part, it will be my dns server that was previously configured already identify it alone as dvlab1.com and with ip 10.173.138.220. select next



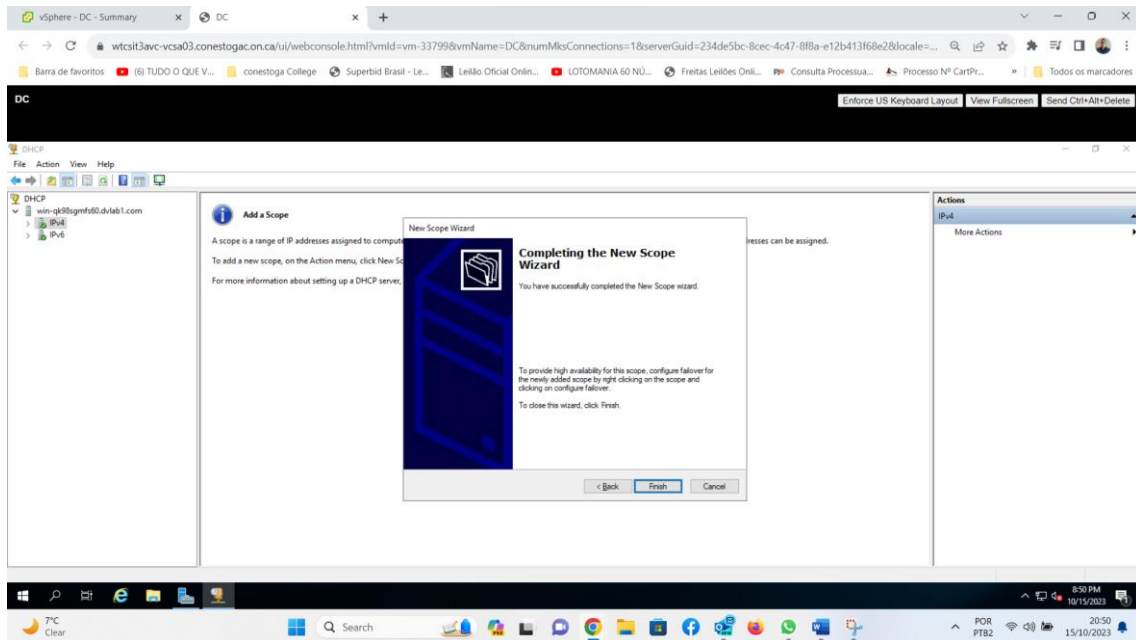
Just click next



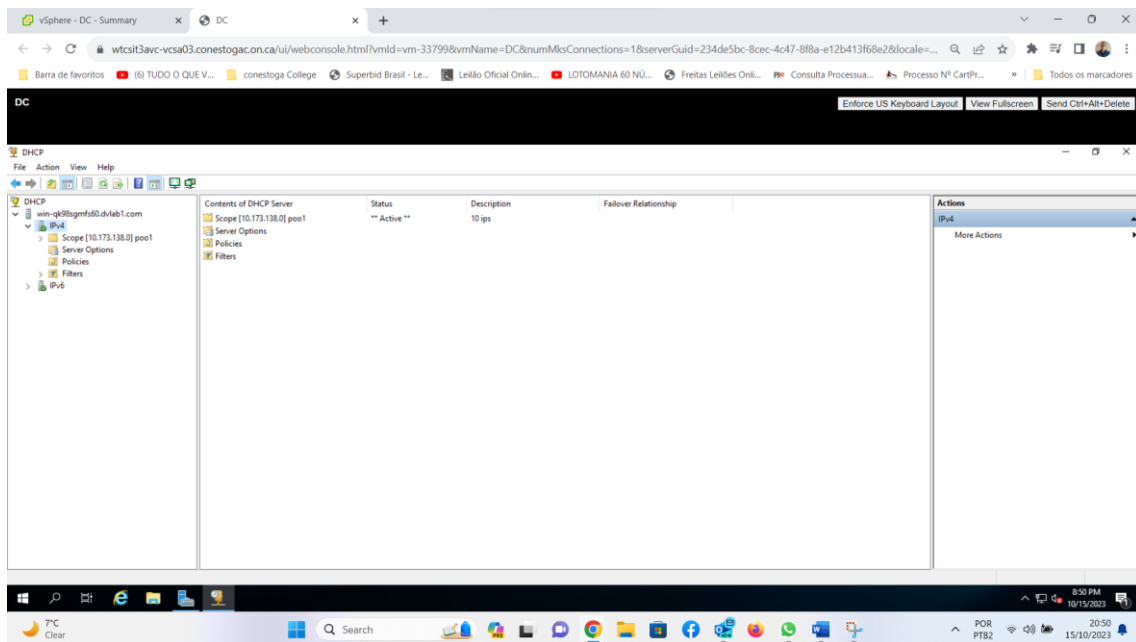
In this step, since the configuration has been completed, just confirm to activate now. in this case i chose yes and then click on next.



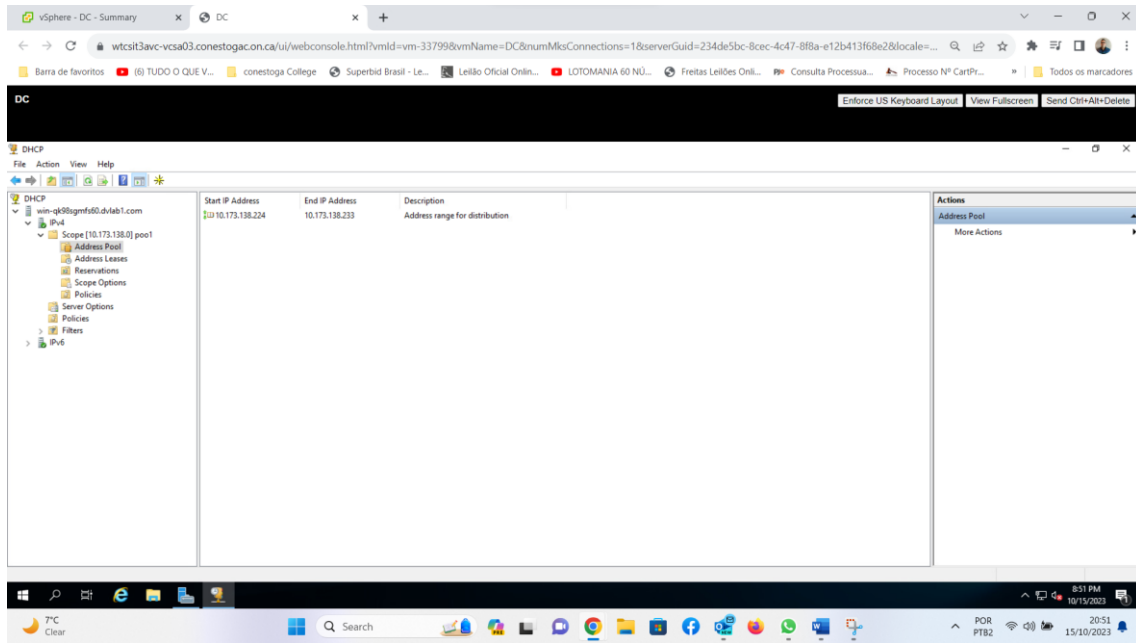
Just click Finish.



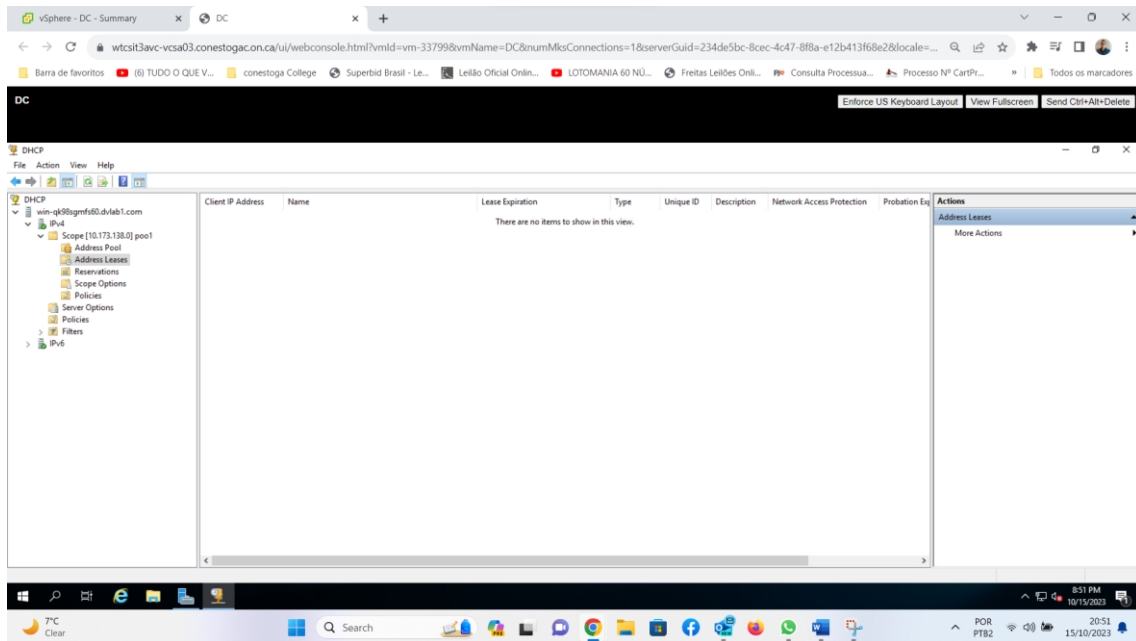
In summary of this screen it shows the dhcp configured on top of the ipv4.



in address pool shows a range of IP addresses

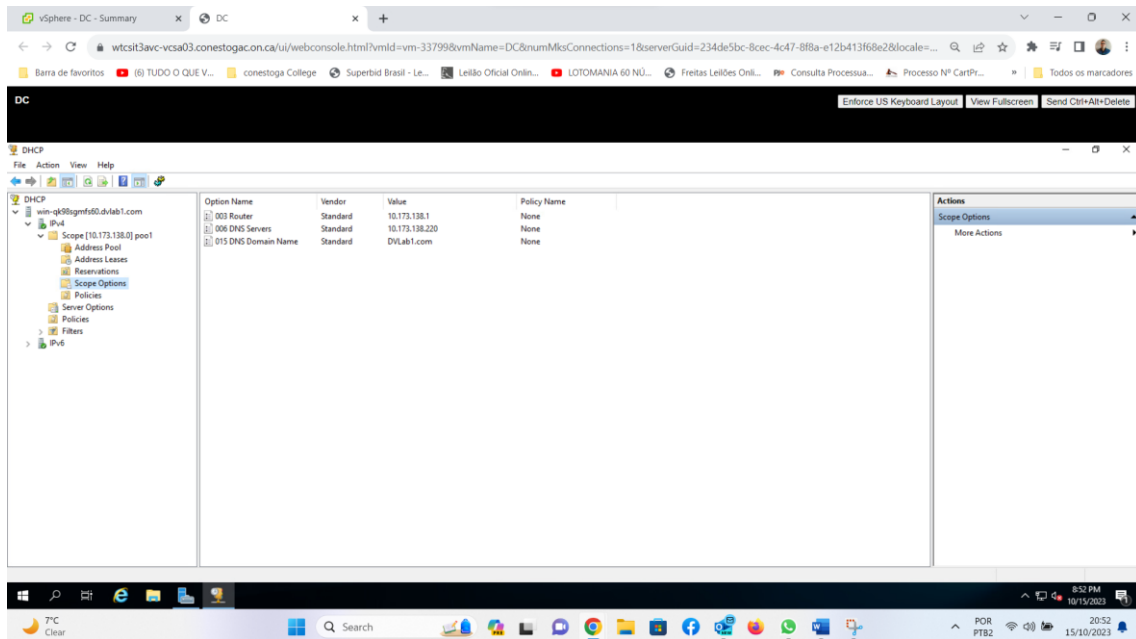


in address leases it is empty for now because it doesn't even have an associated machine.



g- Make sure machine is identifying domain in Network Adapter settings

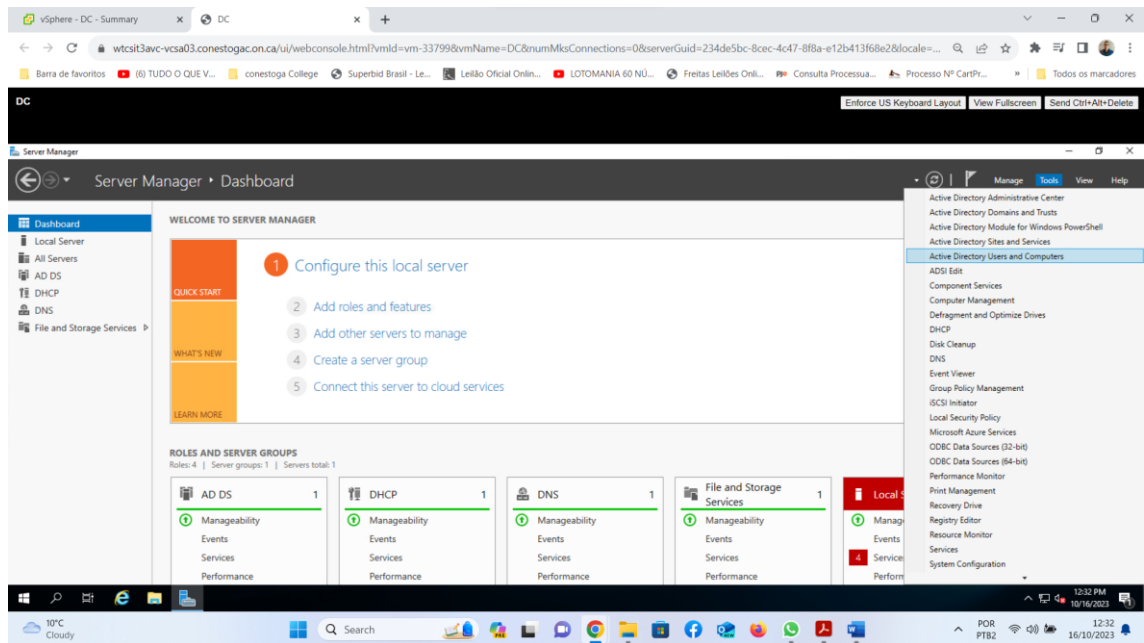
This scope option tab shows in summary the router, DNS and domain network configuration.



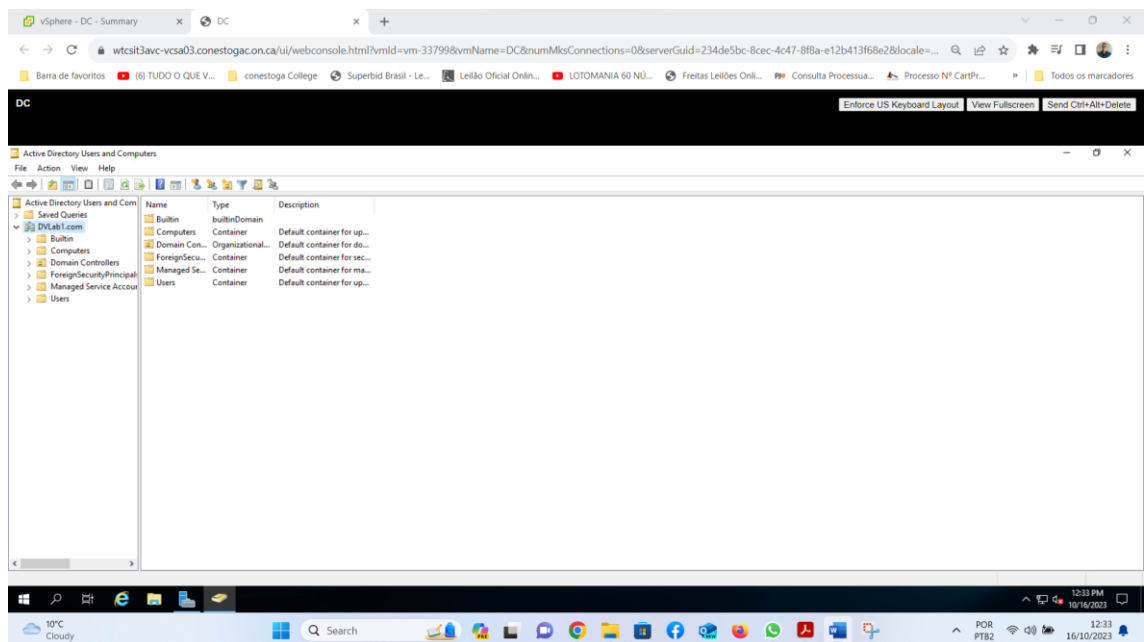
Task2- Configure Users and Computers in Domain Controller

a. Create the following Organizational as per given hierarchy.

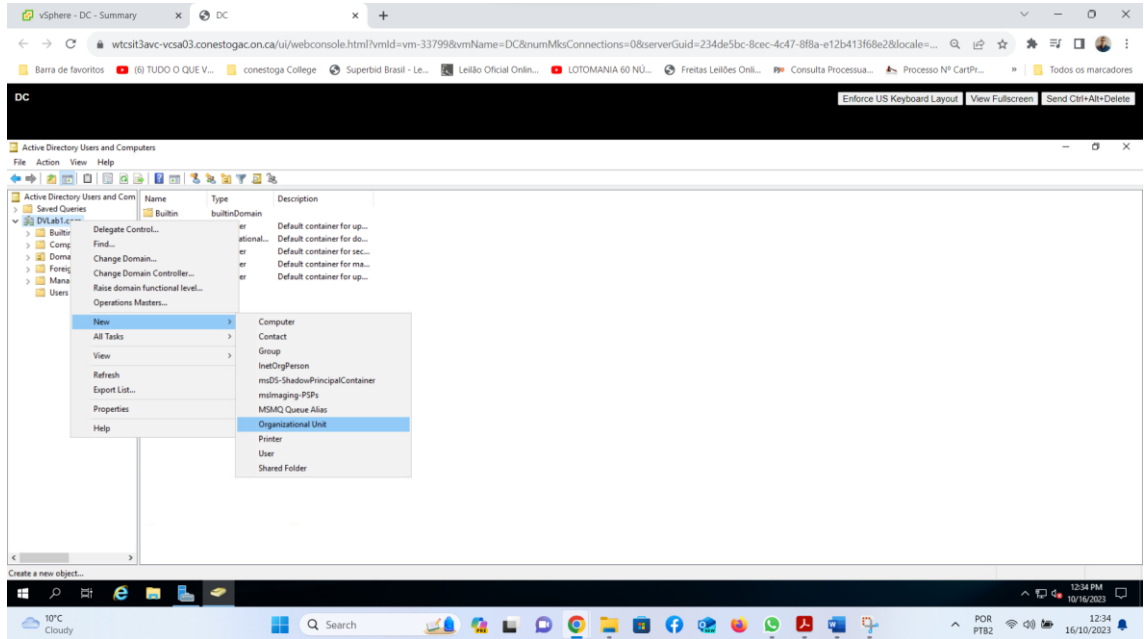
In dashboard click on tools. go to active directory users and computers



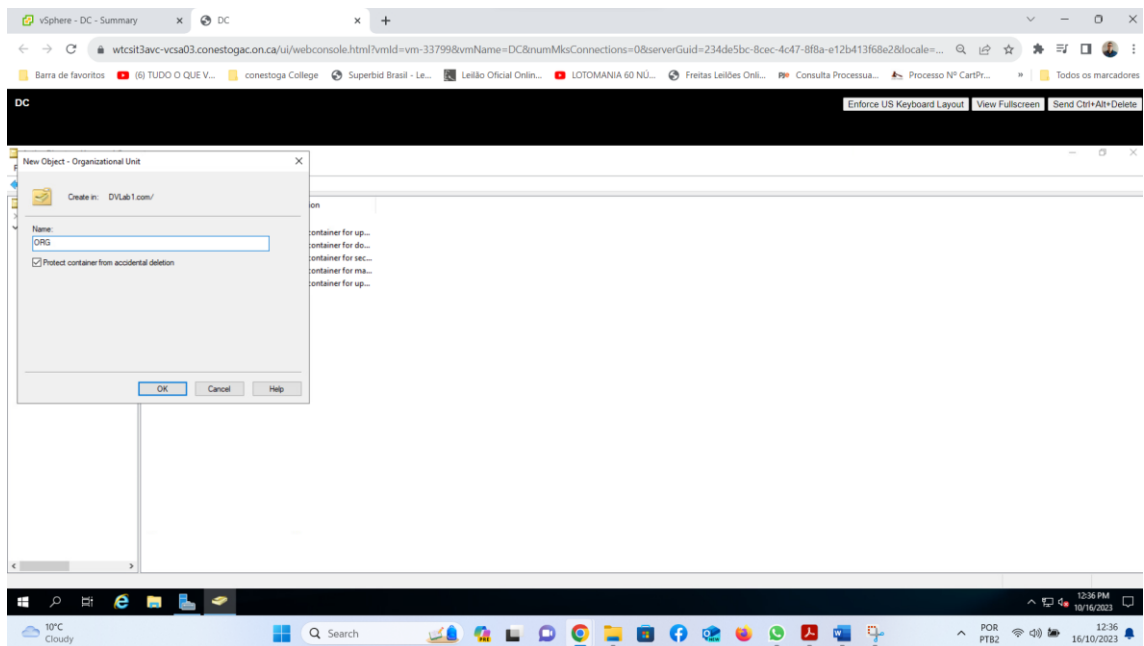
Click the right mouse button on our domain.



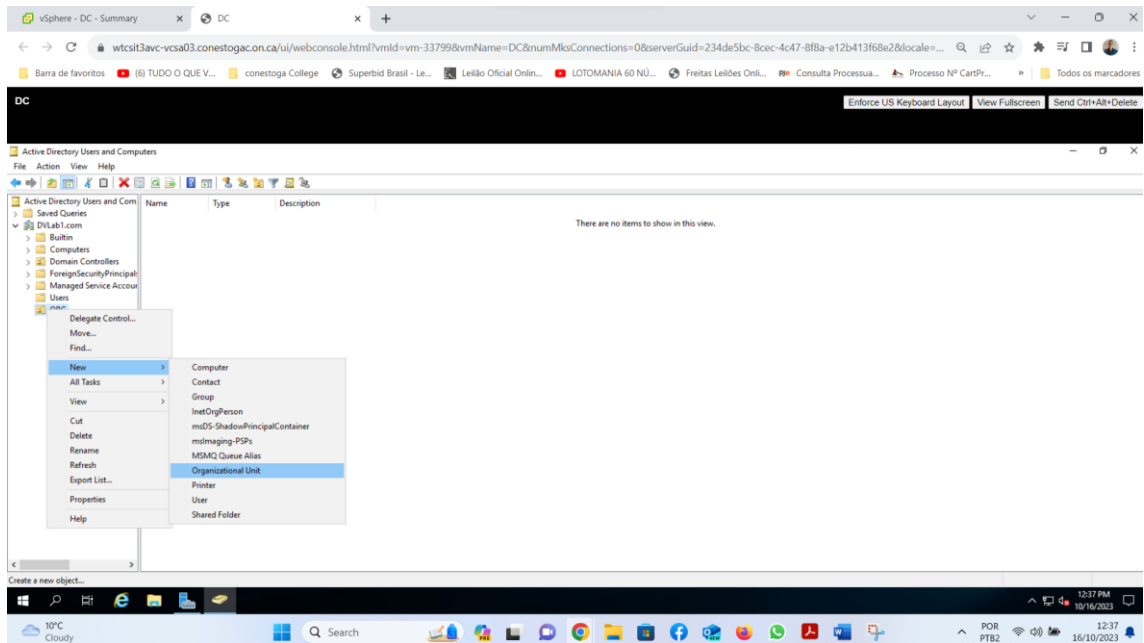
Go to new, Organizational Units



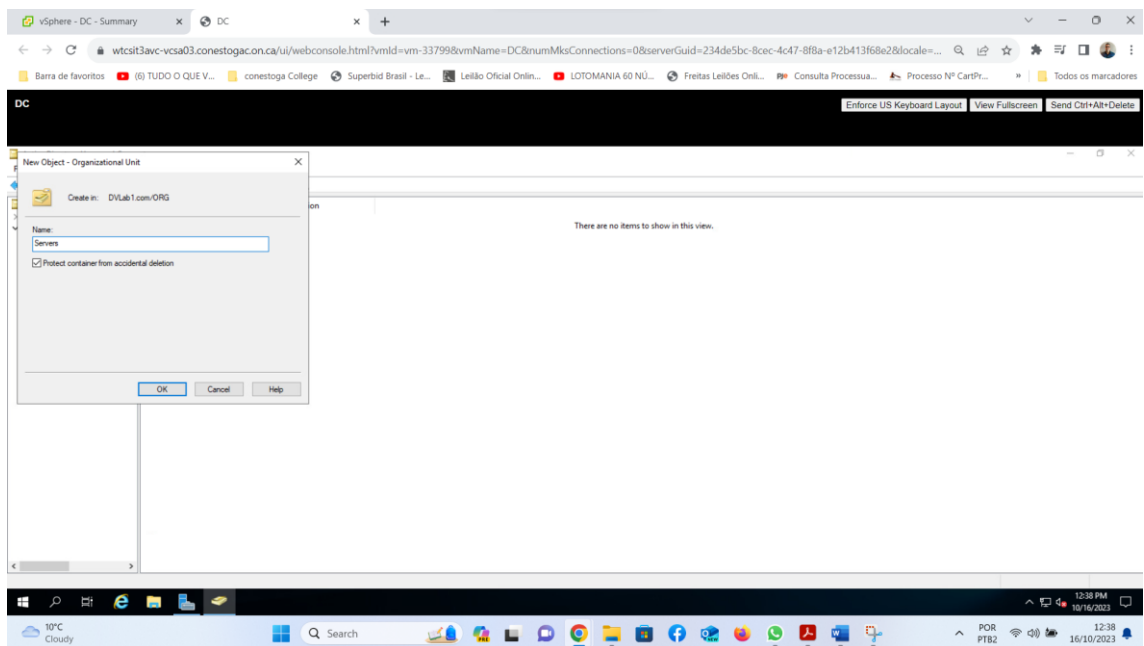
in this case I chose org click ok



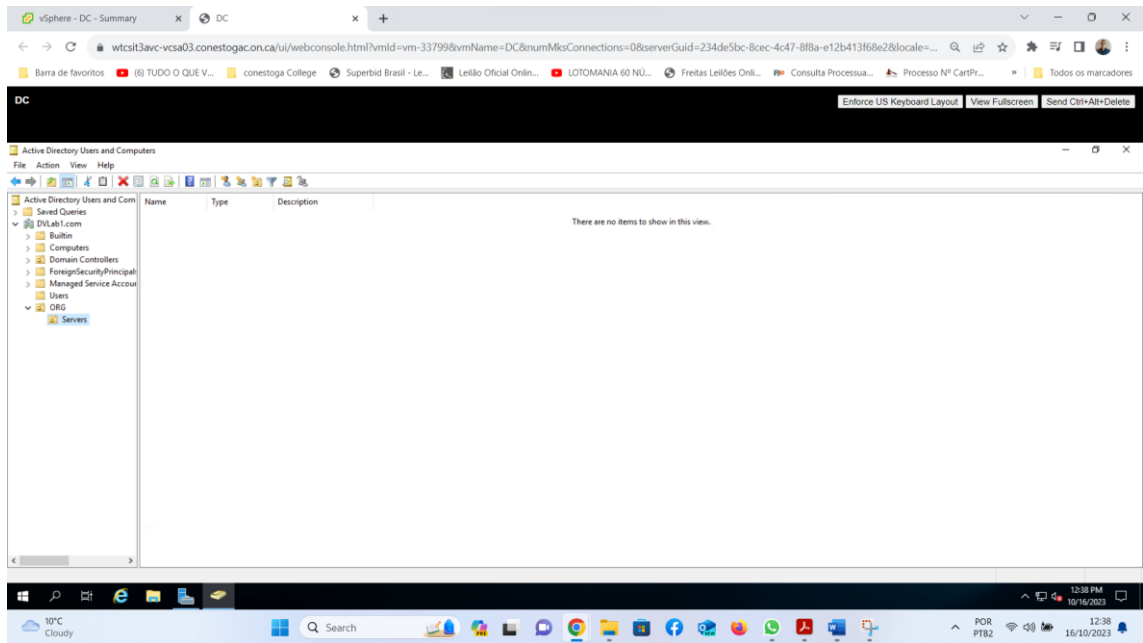
right-click on the ORG that was created next new, Organizational Units



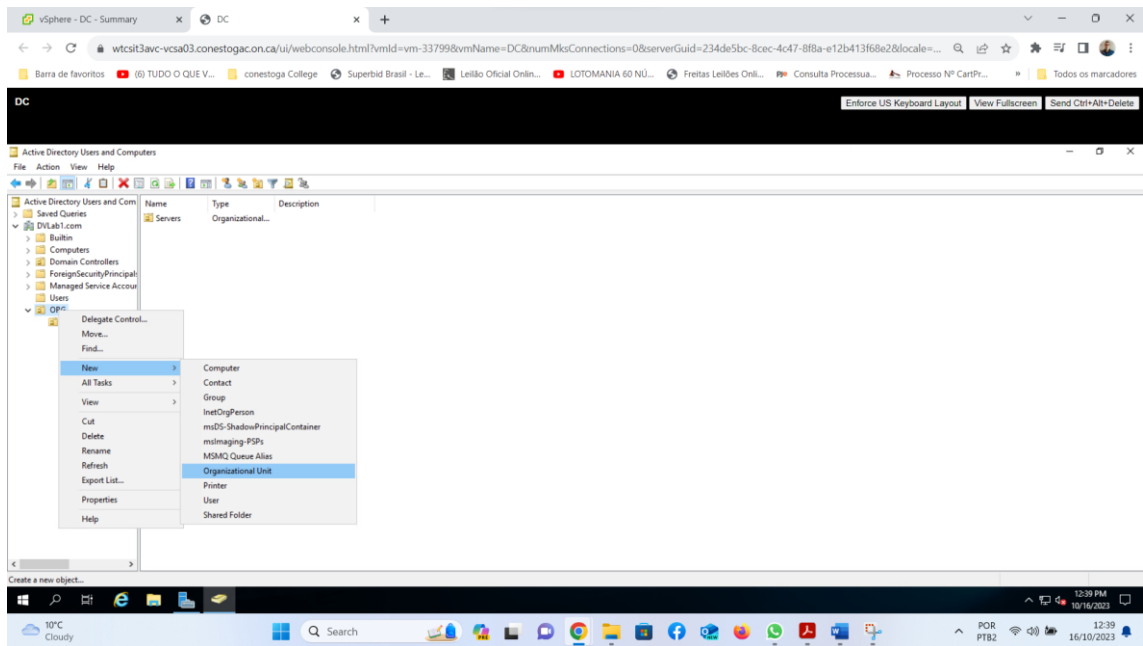
create servers at ORG, click ok



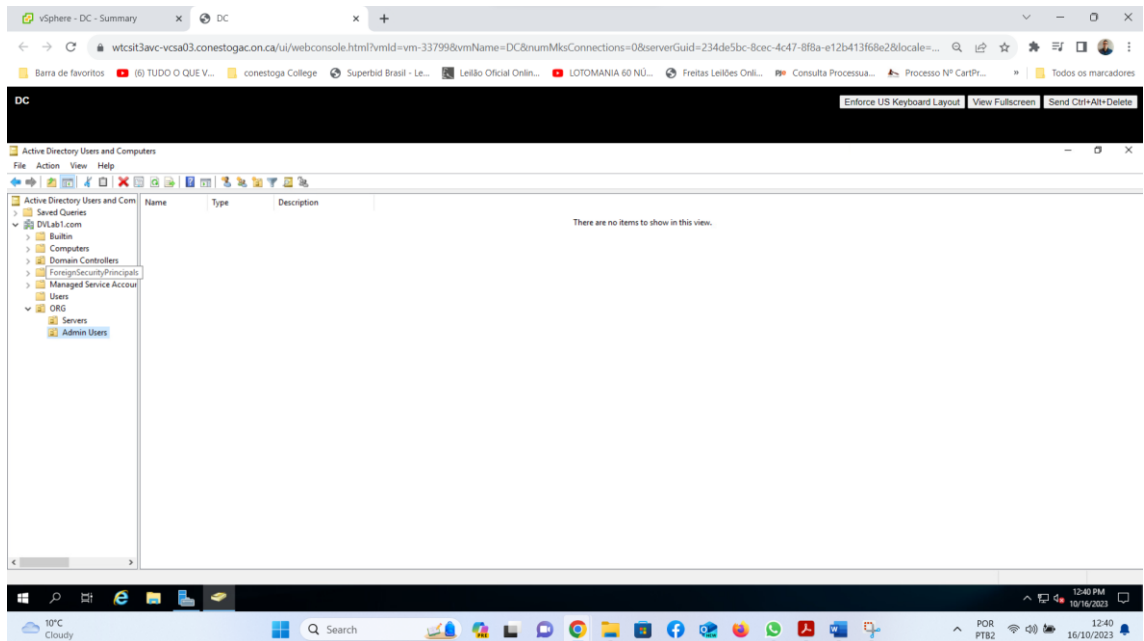
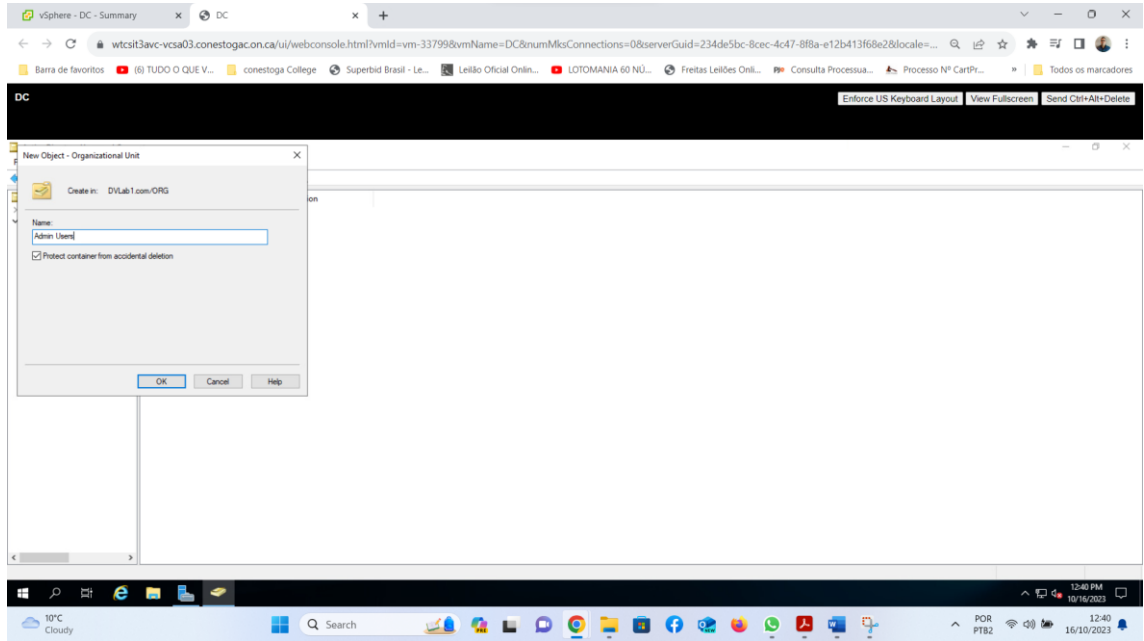
right-click on the ORG that was created next new, Organizational Units



create servers at ORG, click ok

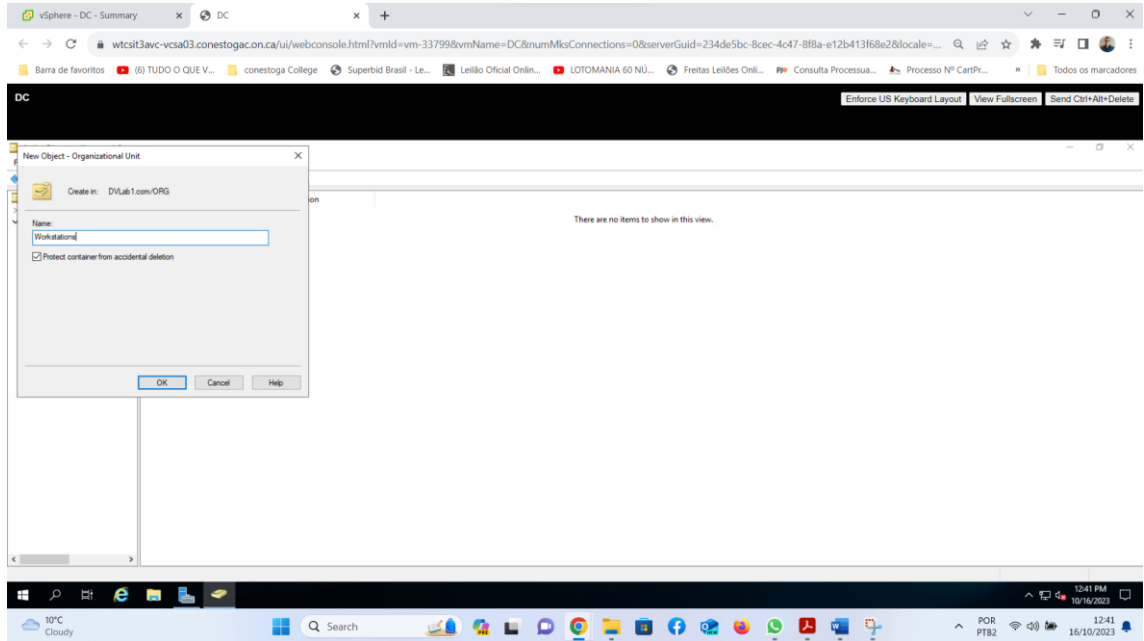


create Admin Users at ORG, click ok

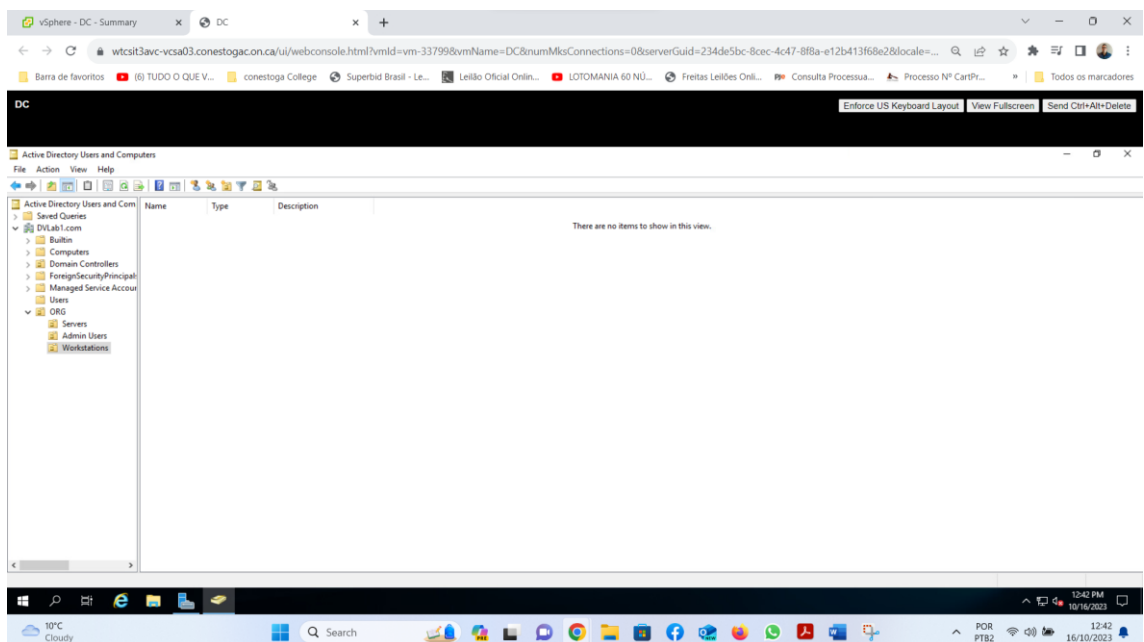


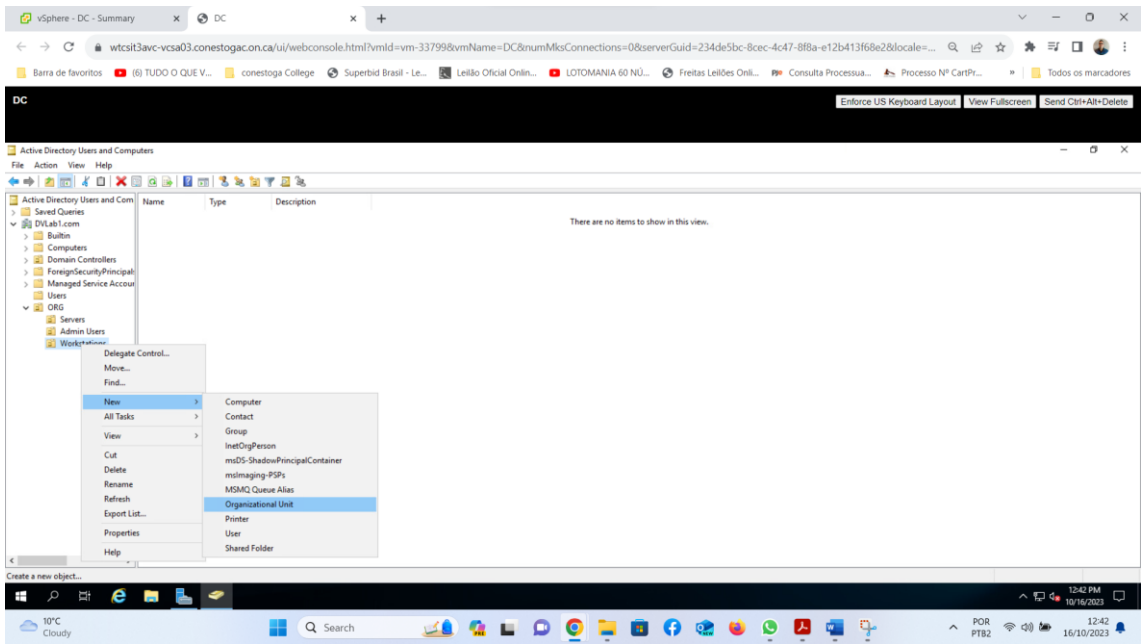
right-click on the ORG that was created next new, Organizational Units and

Create Workstations

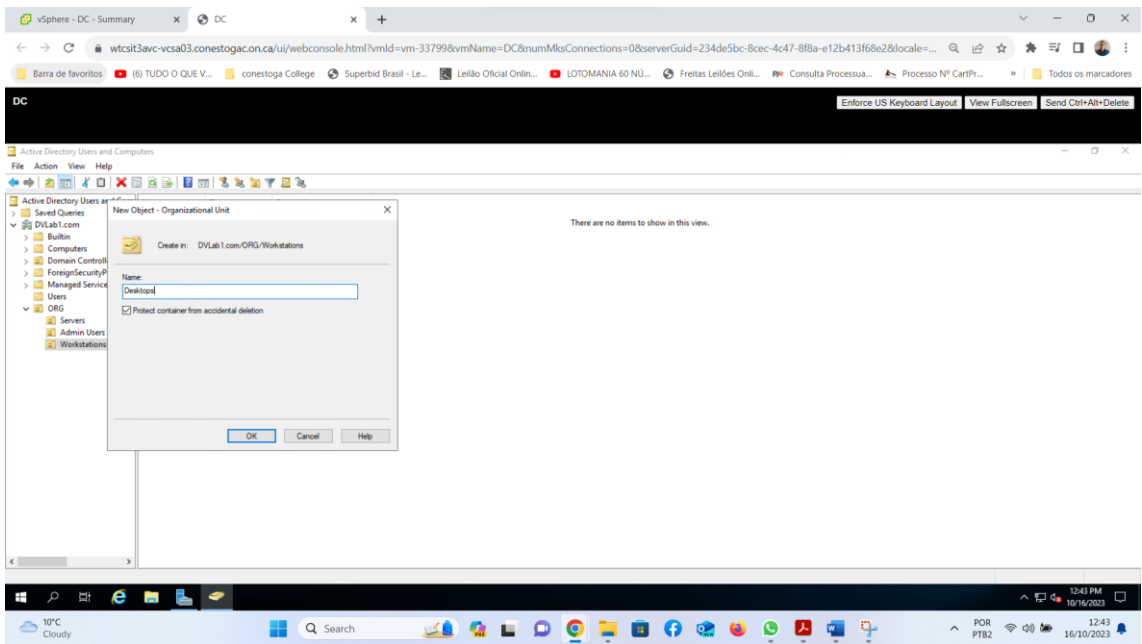


right-click on workstations that was created next new, Organizational Units and

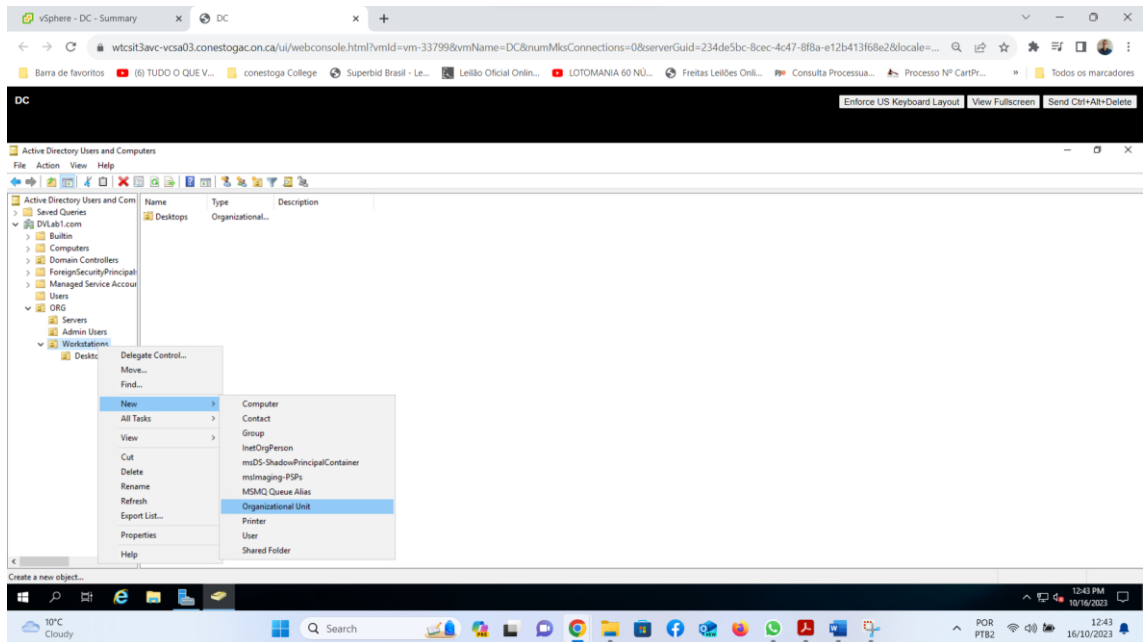




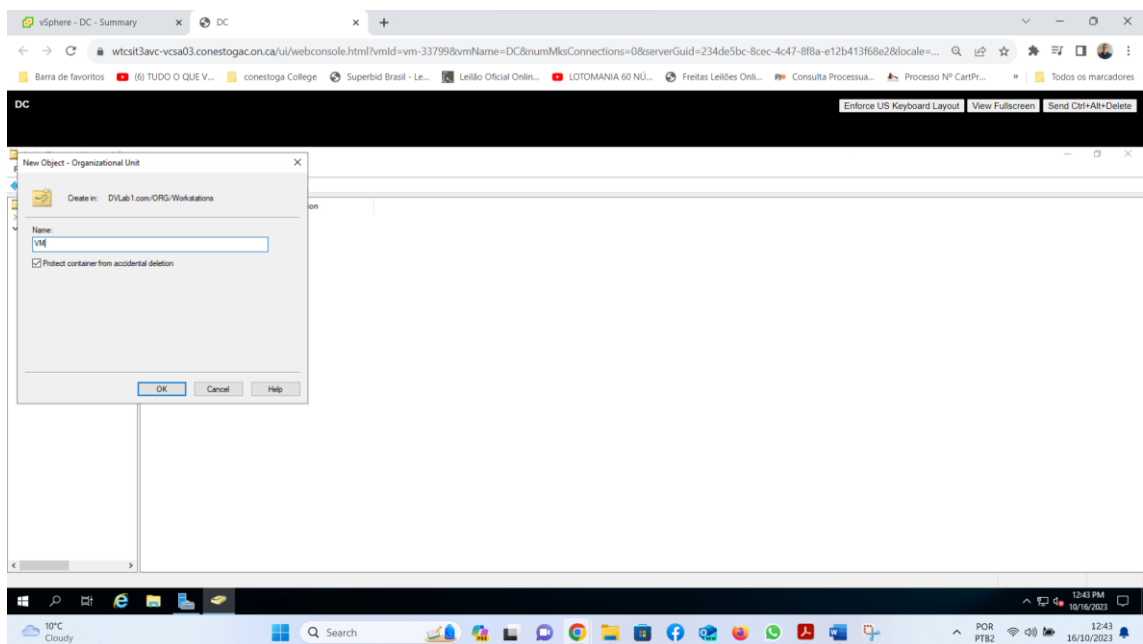
Create Desktops

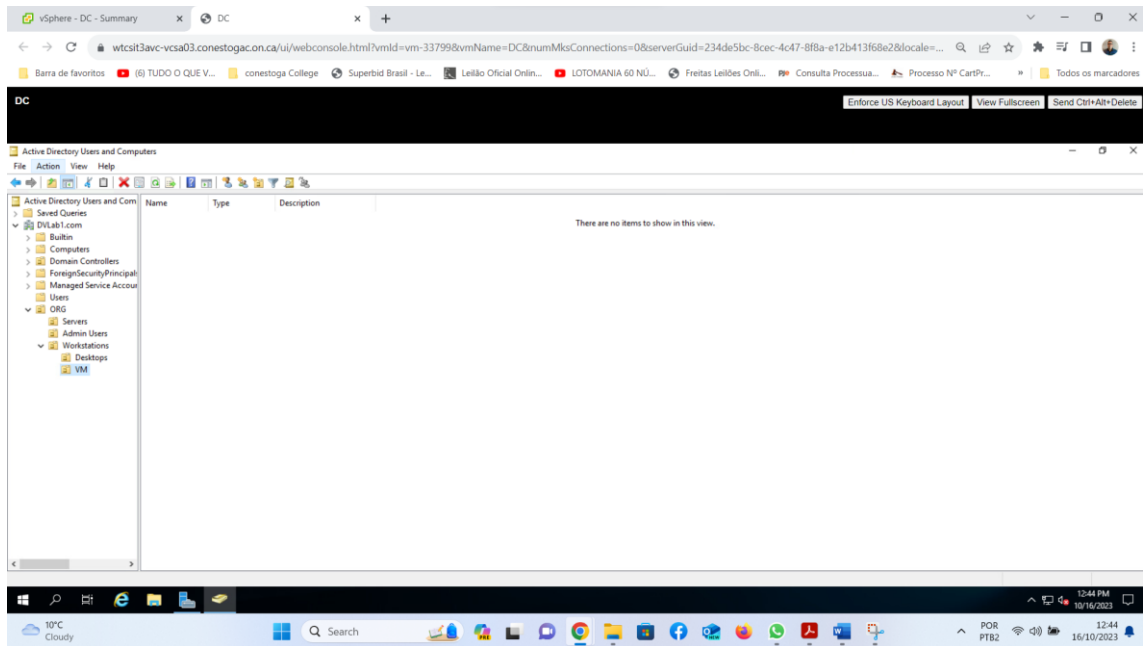


right-click on workstations that was created next new, Organizational Units and

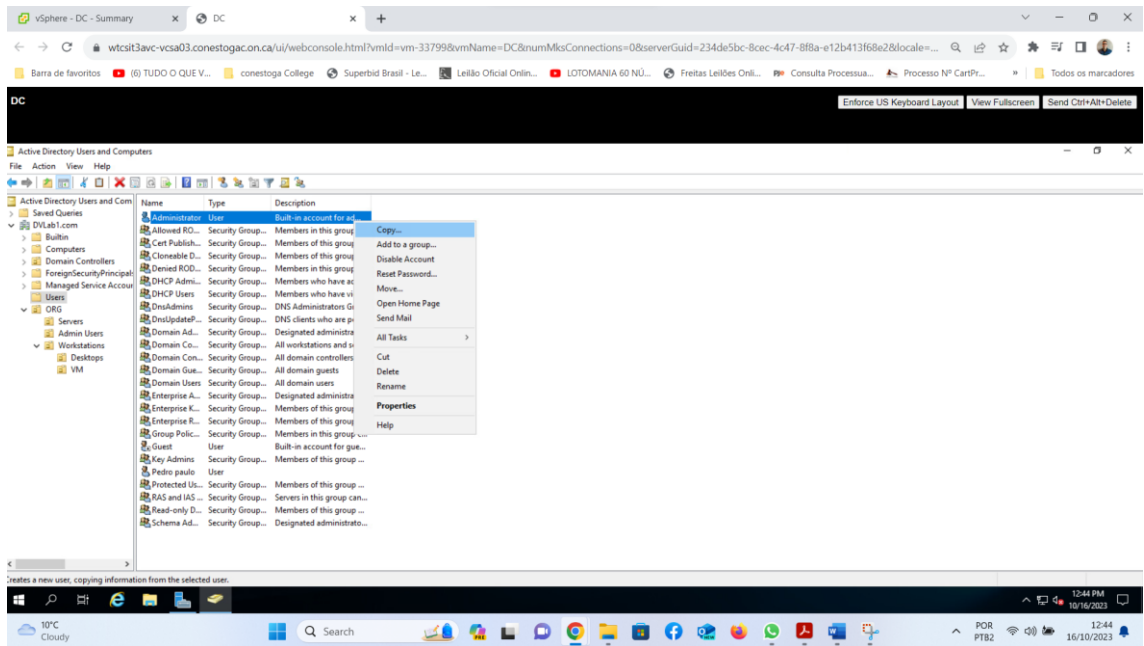


Create VM, select ok.

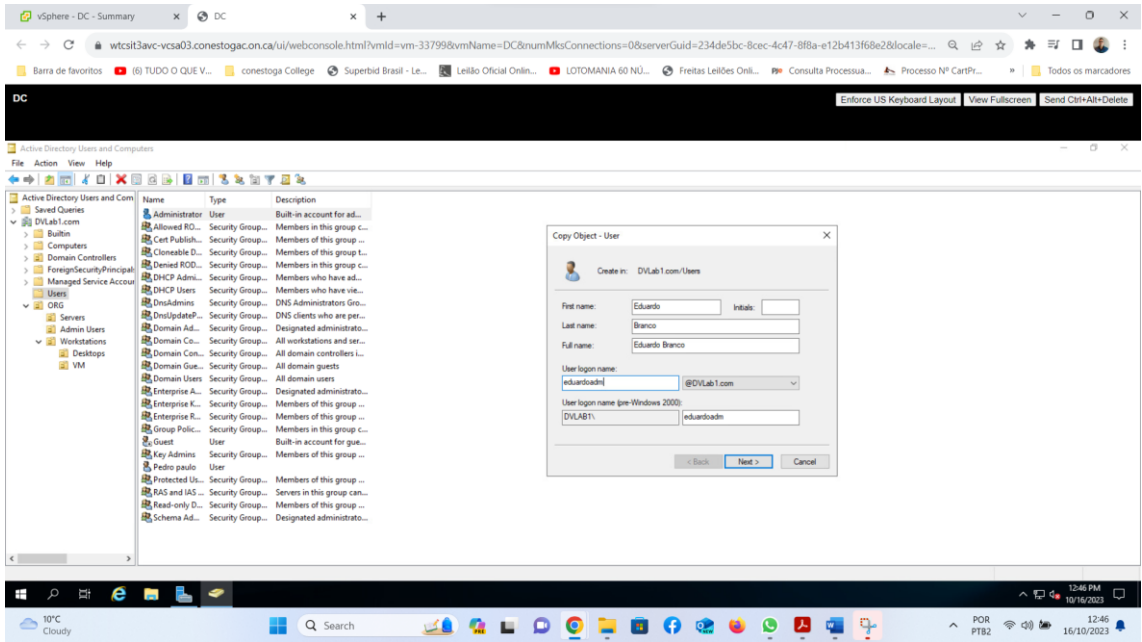




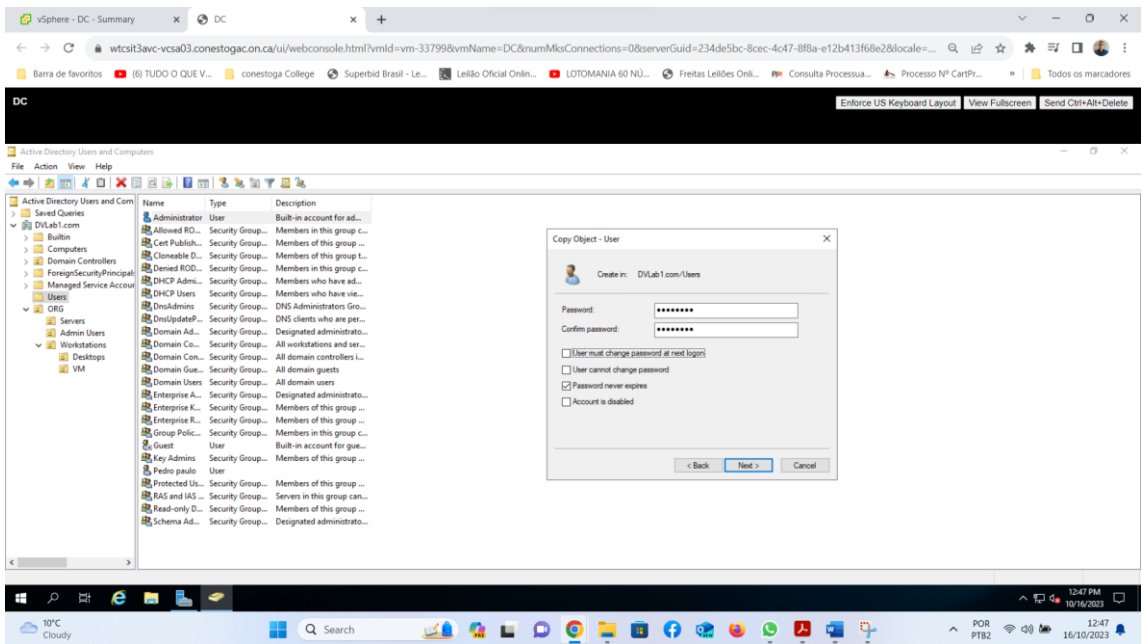
B- Go to Users → Copy Administrator and create one more administrative user with your name



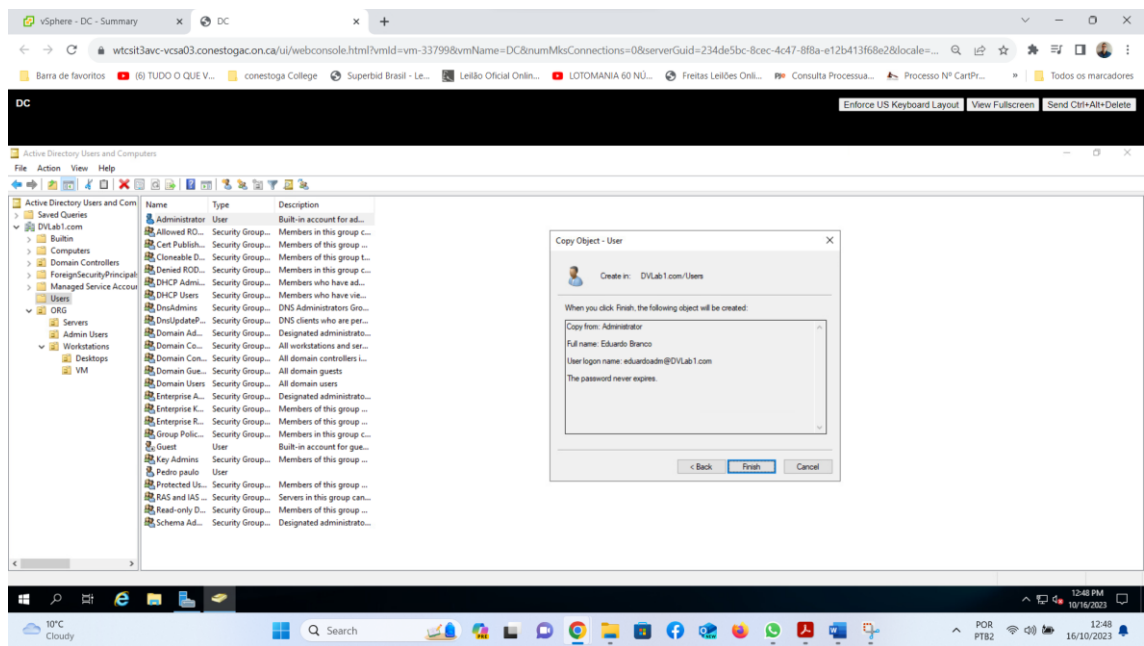
Copy as administrator and create Eduardo branco with eduardoadm@dvlab1.com



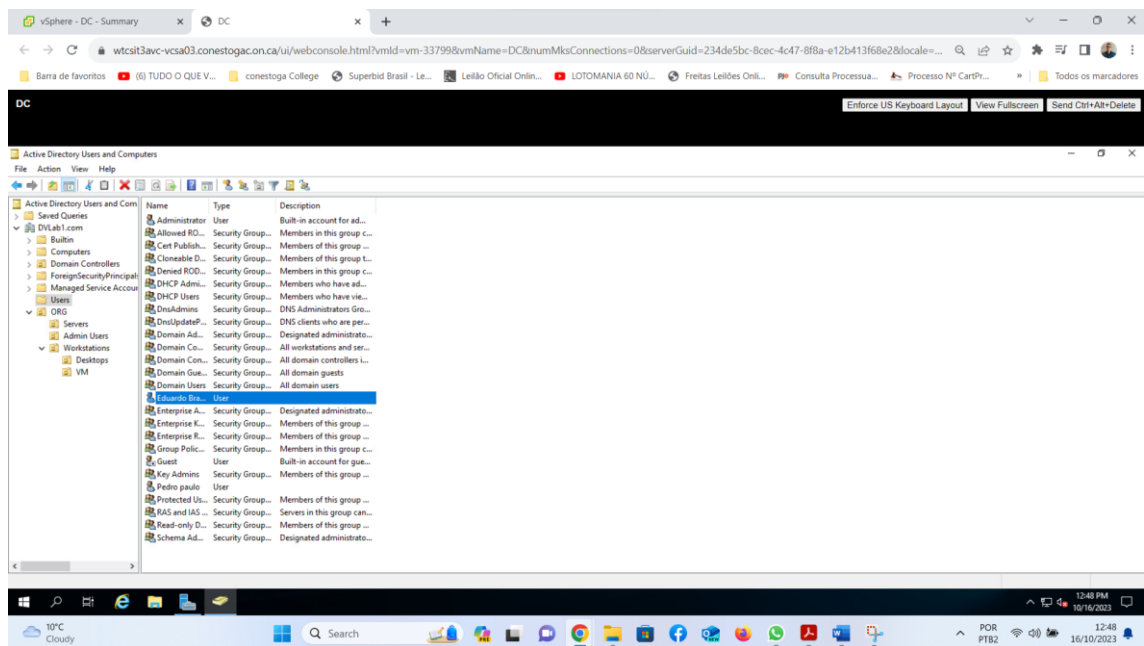
More config about pwd



Click finish

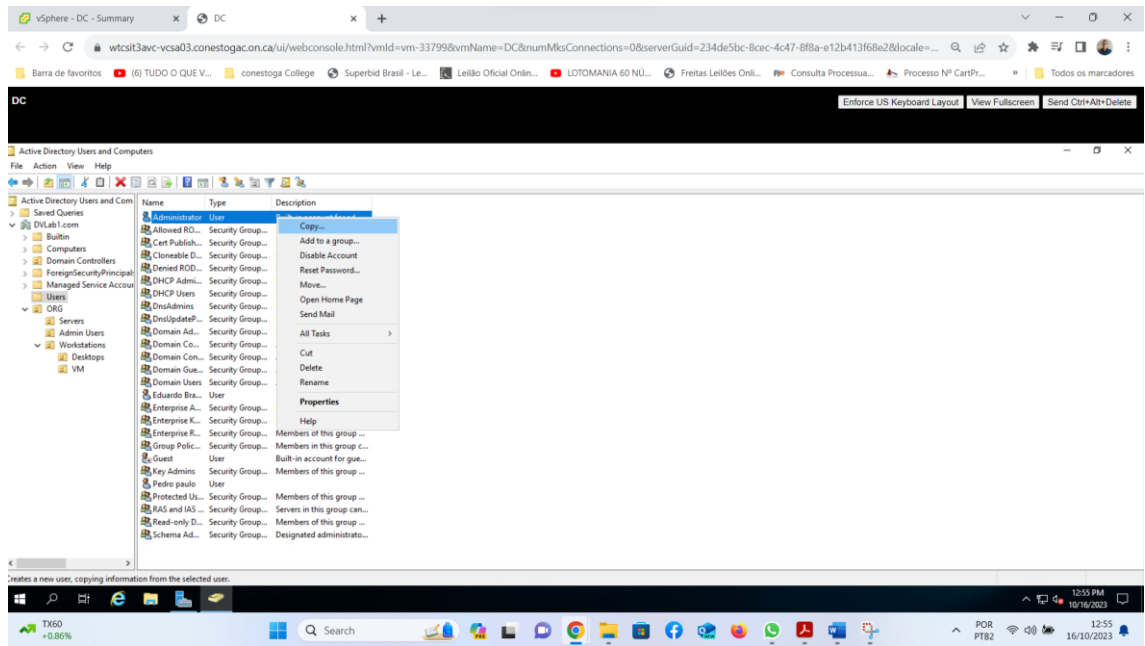


As can see Eduardo has been copy

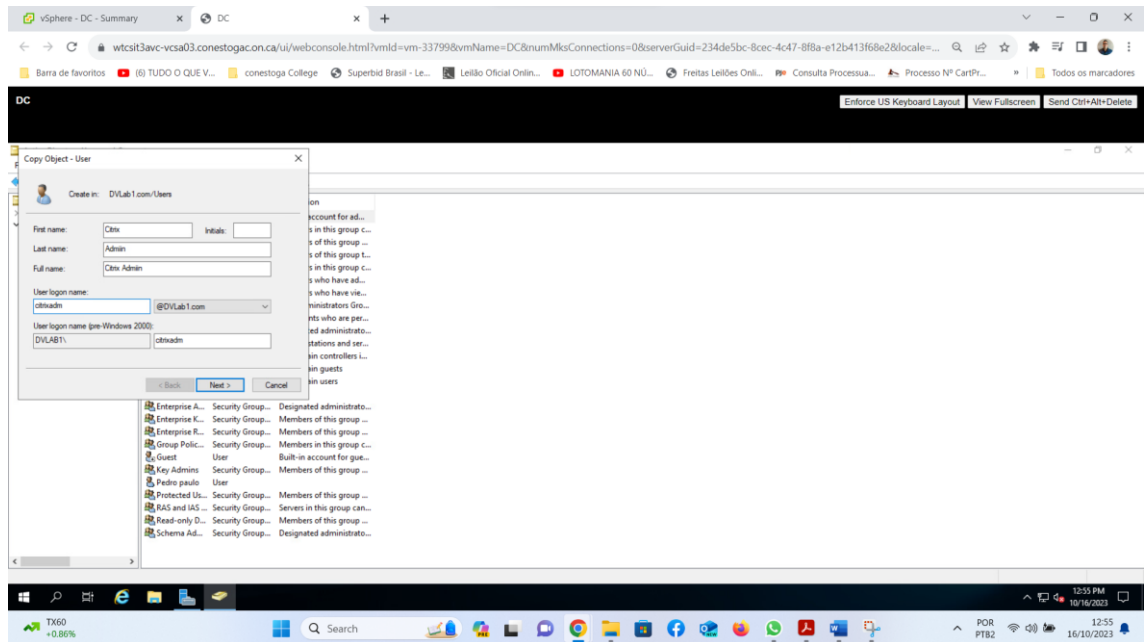


C- Create one more Administrative user as Citrix Admin and take it to Admin Users OU

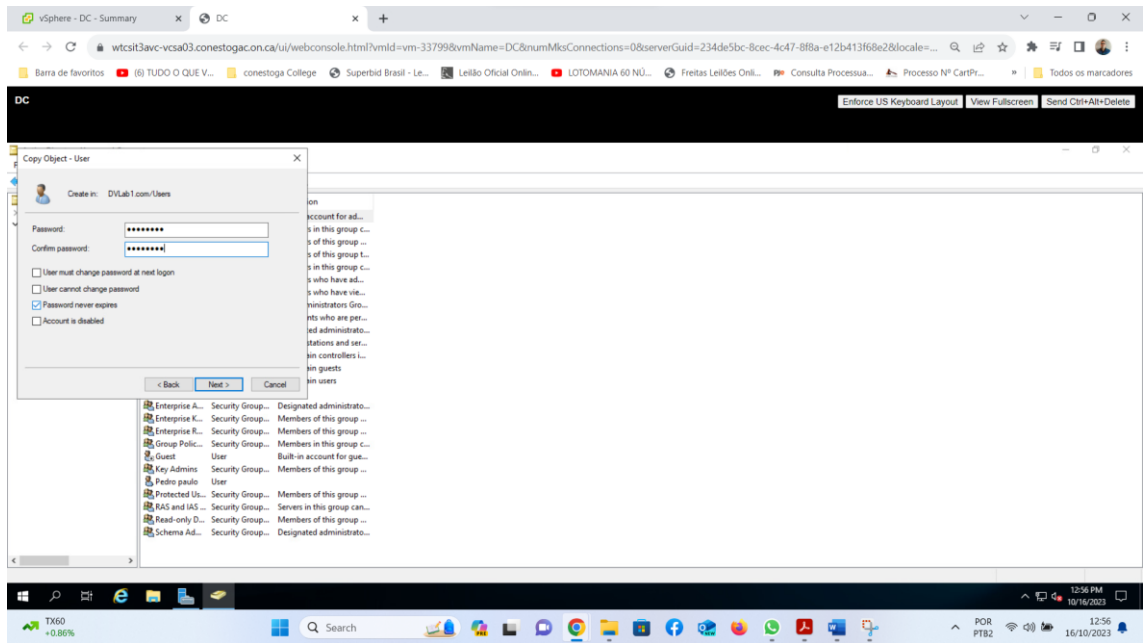
Create one more copy



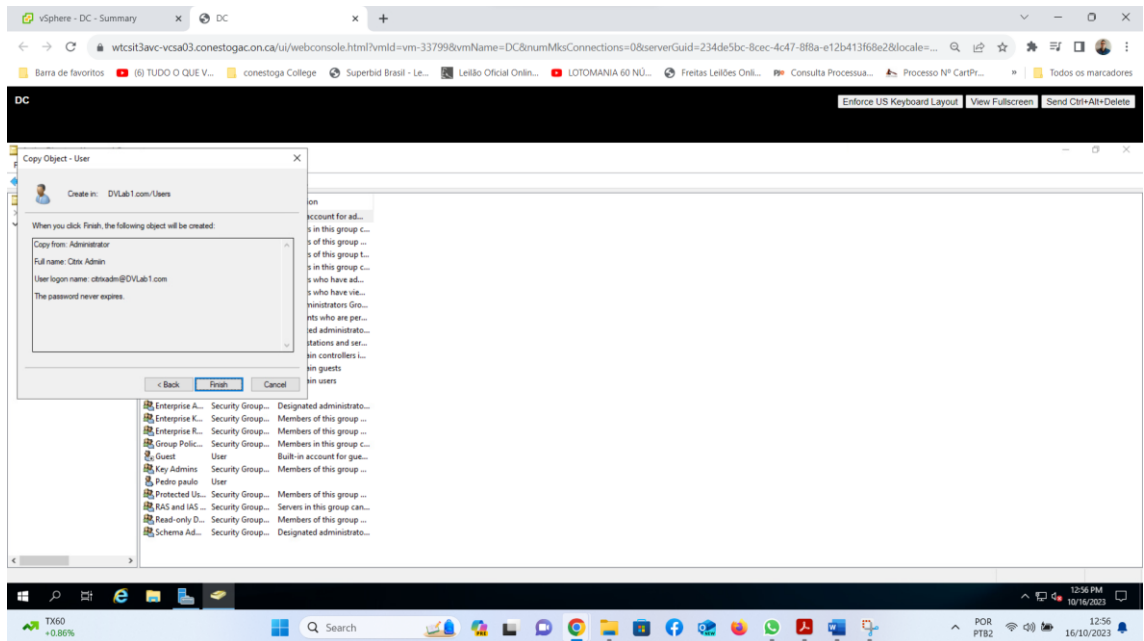
Citrix Admin



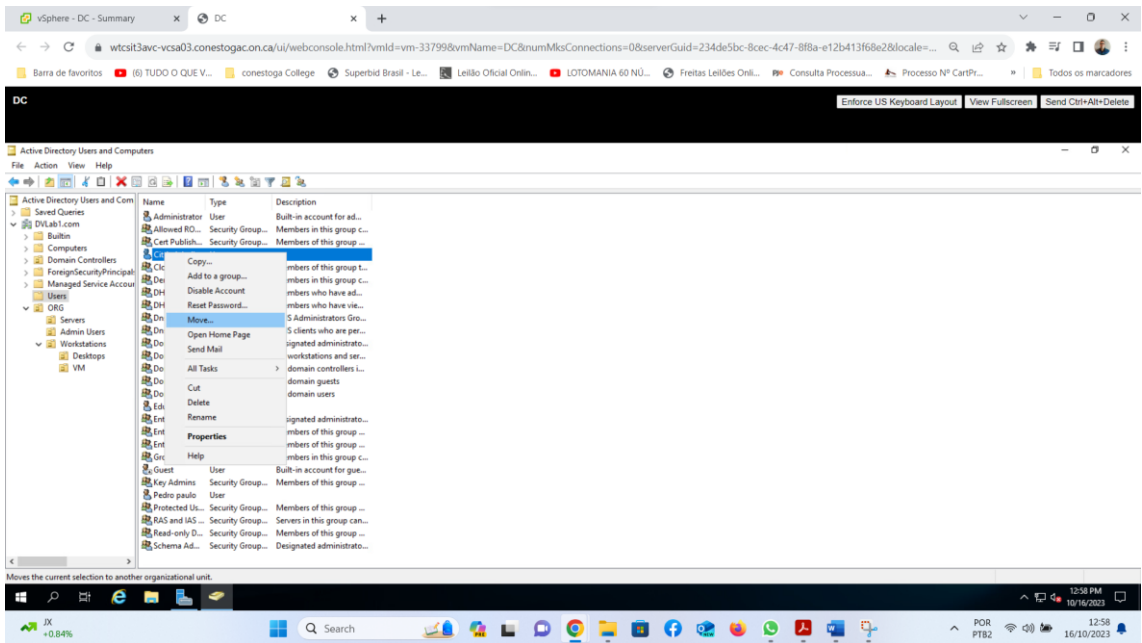
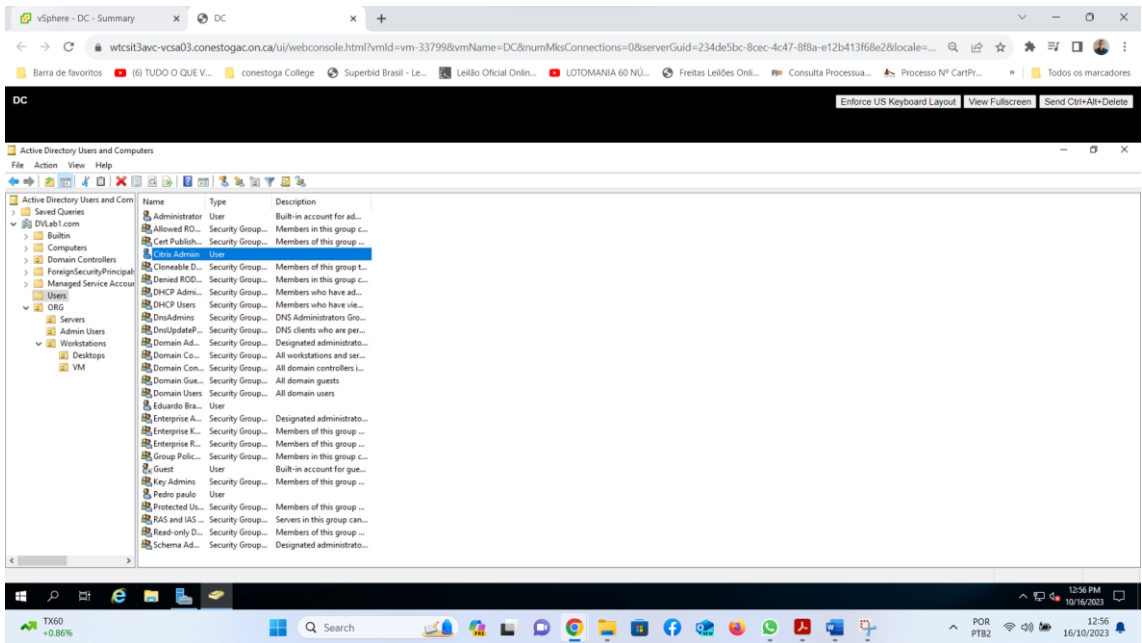
Set password. Select next



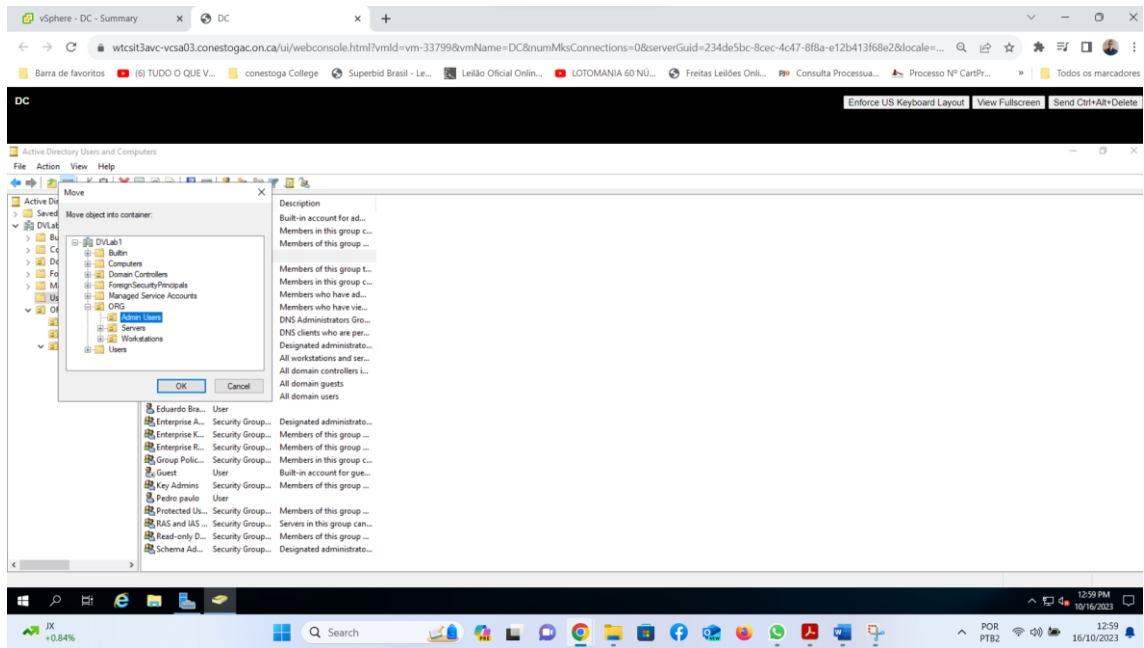
Click finish



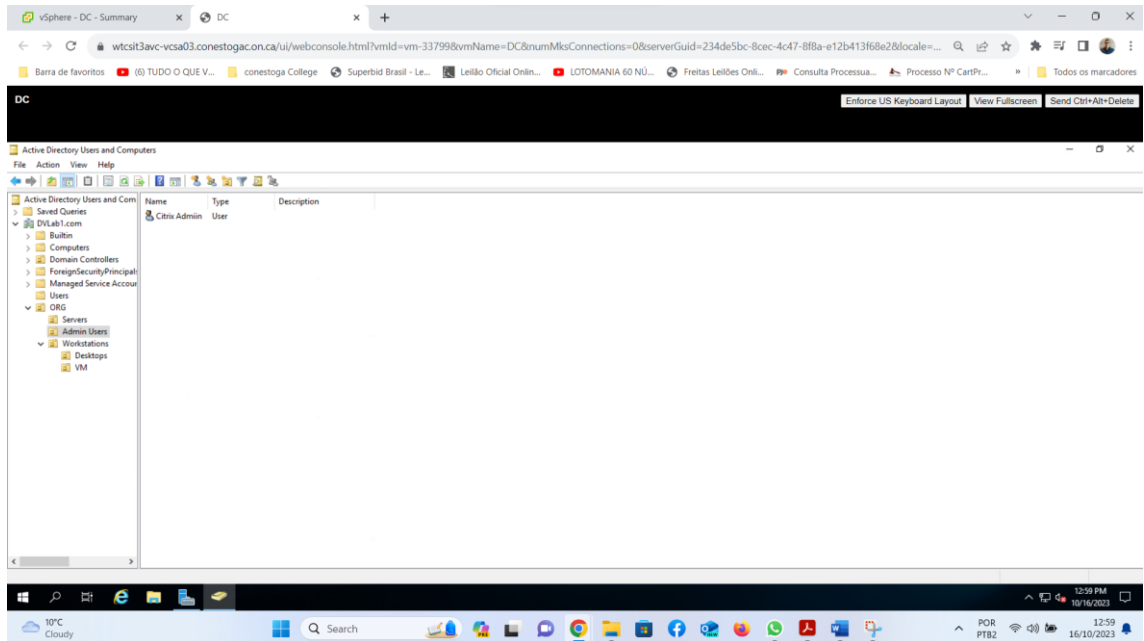
right-click on the citrix user and then move



choose destination as ORG\admin users

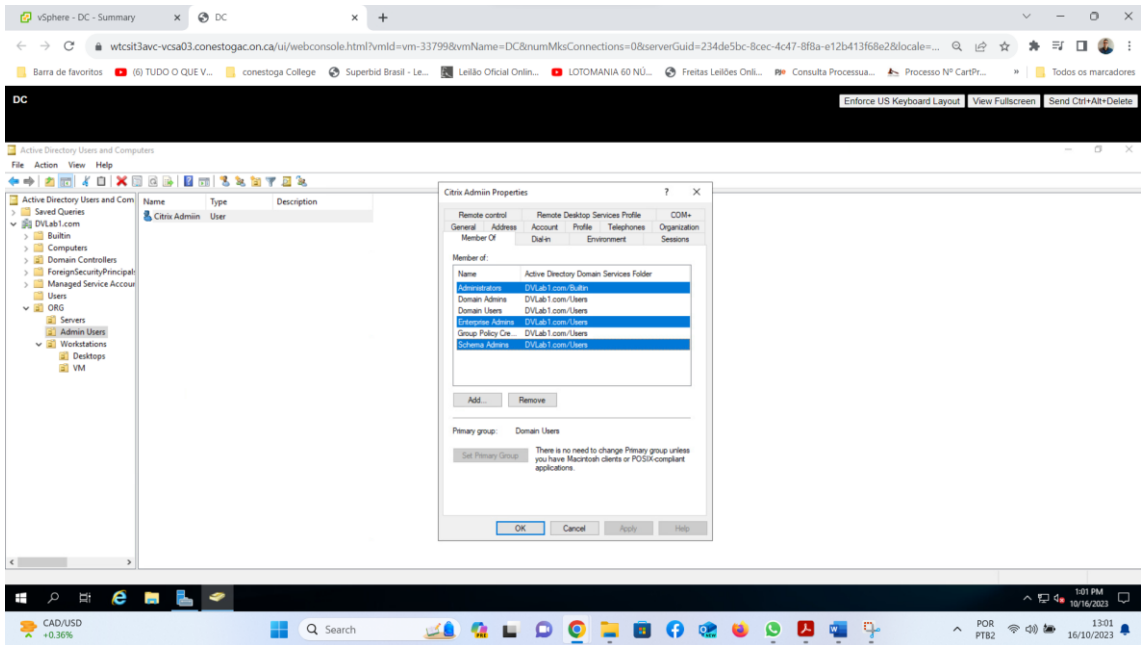


Now as we can see the citrix user has been moved, let's edit.

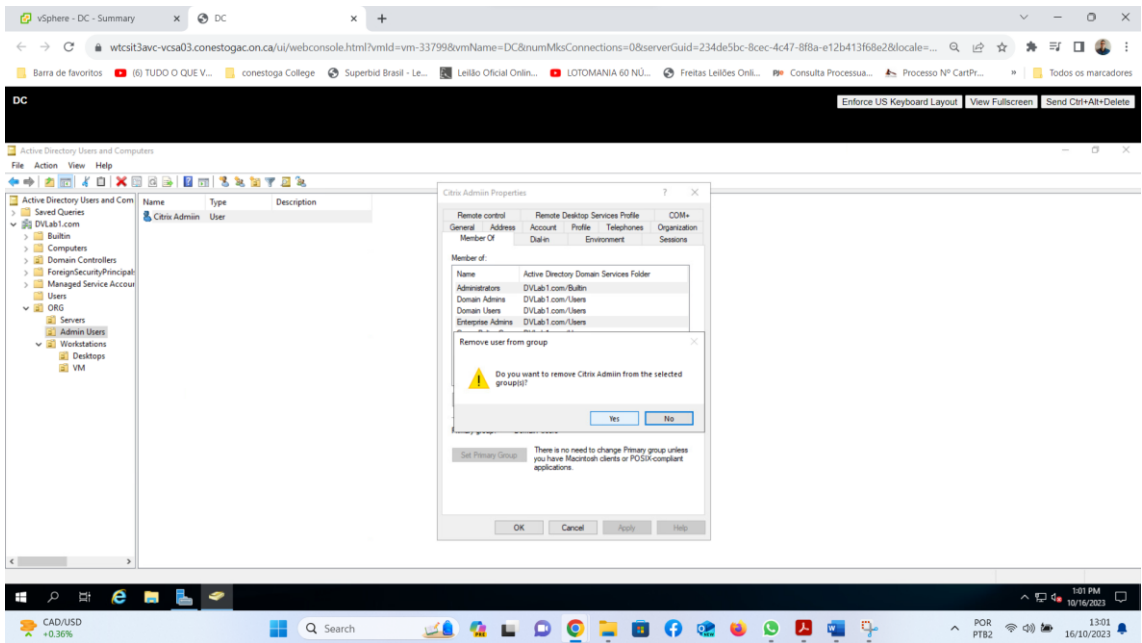


d-Edit Citrix Admin User and remove Member of profile for Administrator, Enterprise Admin and Schema Admin

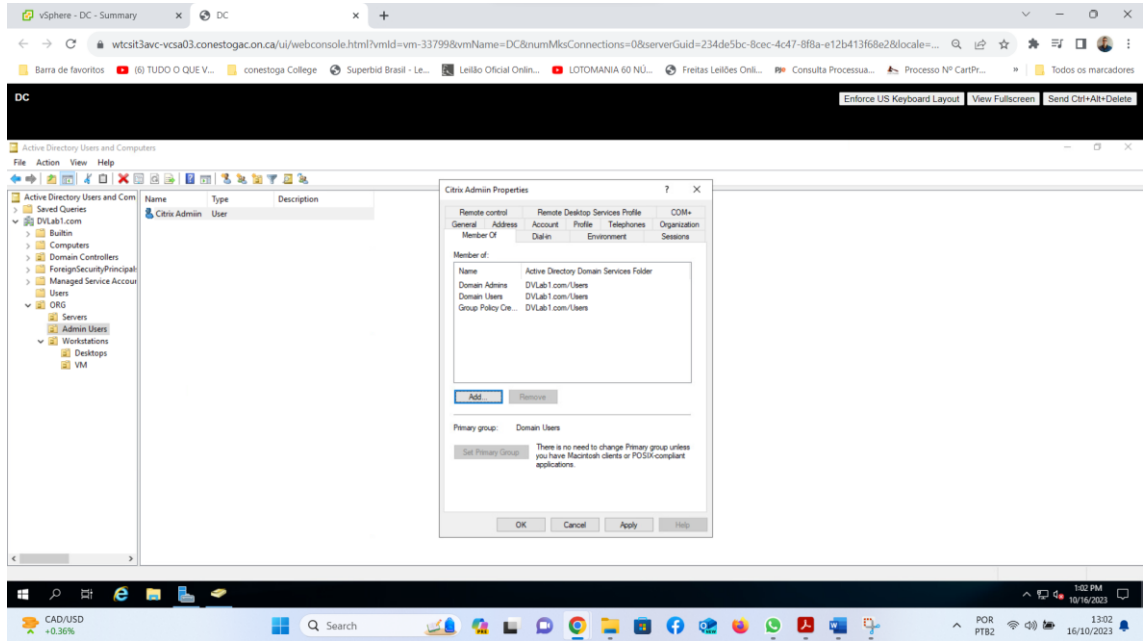
two click on citrix admin, Go to member of, select administrator, enterprise admin and schema admins. click on remove



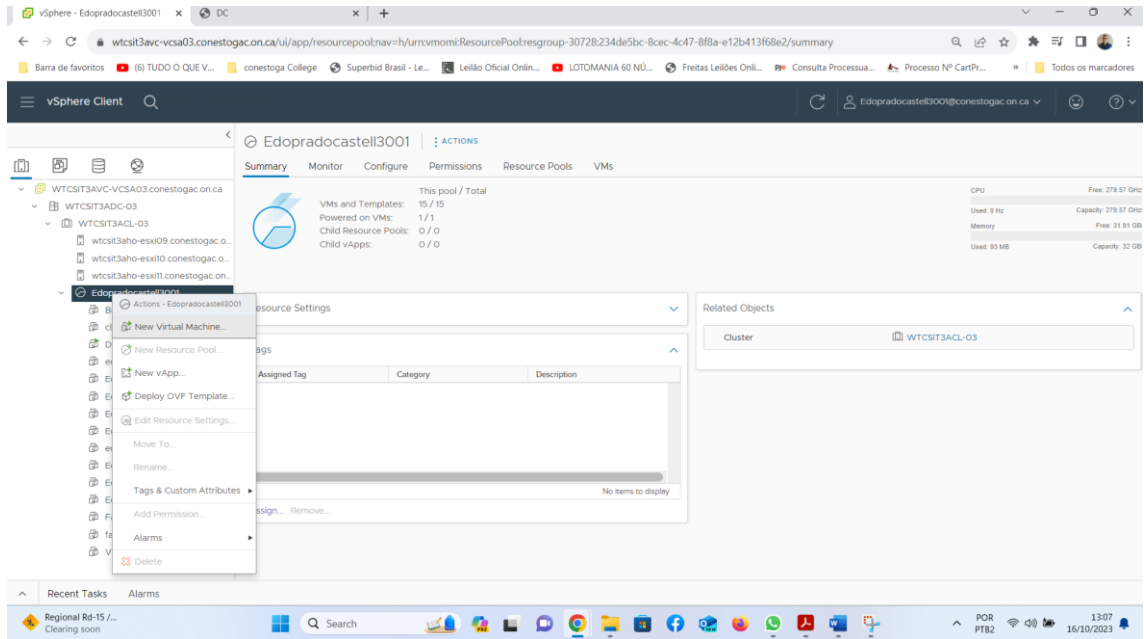
Select Yes to confirm.



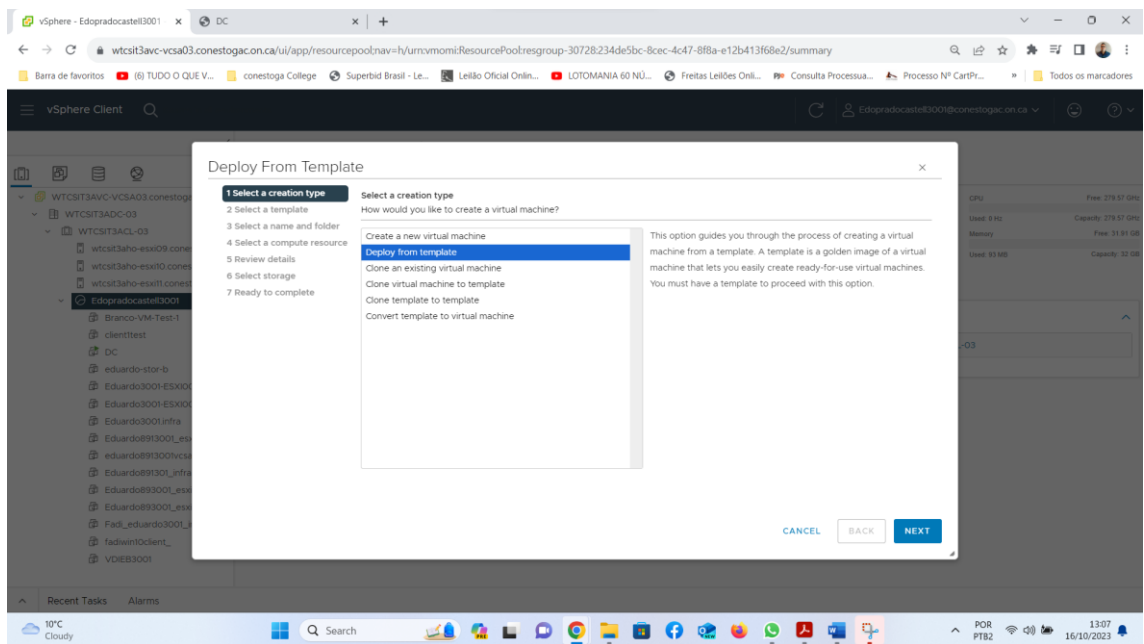
as we can see in this image it was removed.



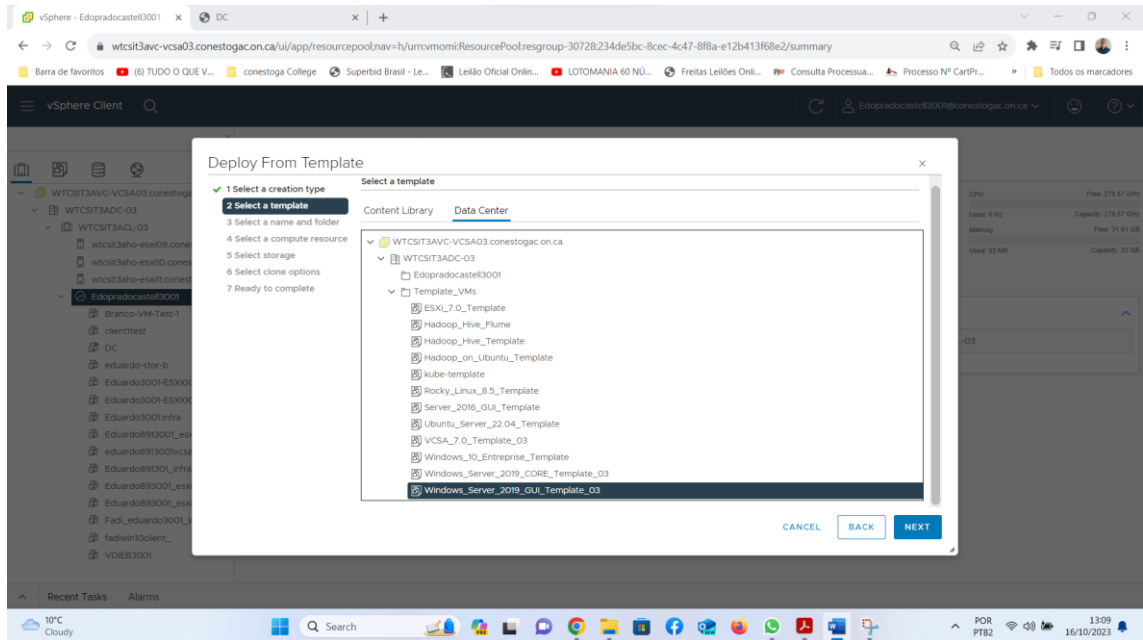
Task3- First step right click on my ID then new virtual machine.



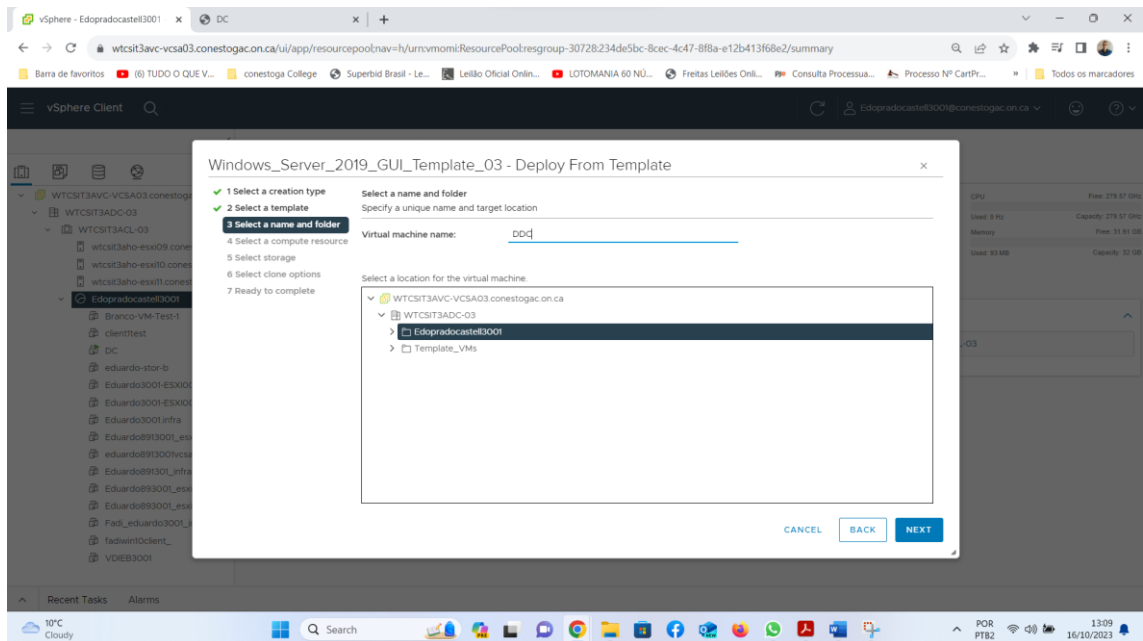
second step, select a creation type - deploy from template, select next



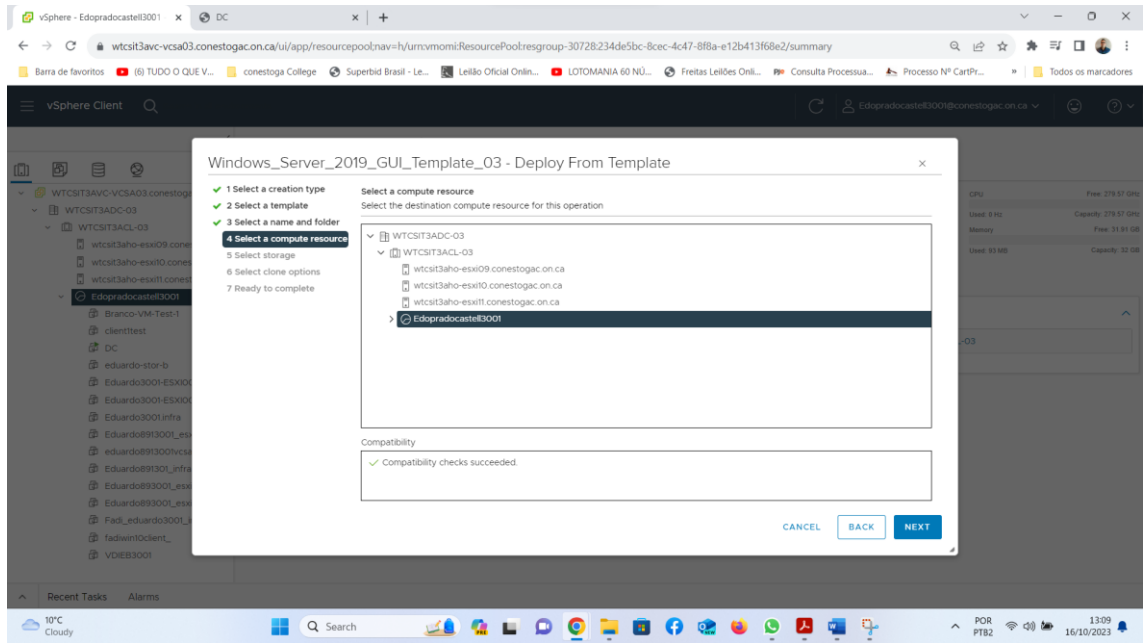
go to data center and select template vm, then select Windows Server 2019 gui template select next



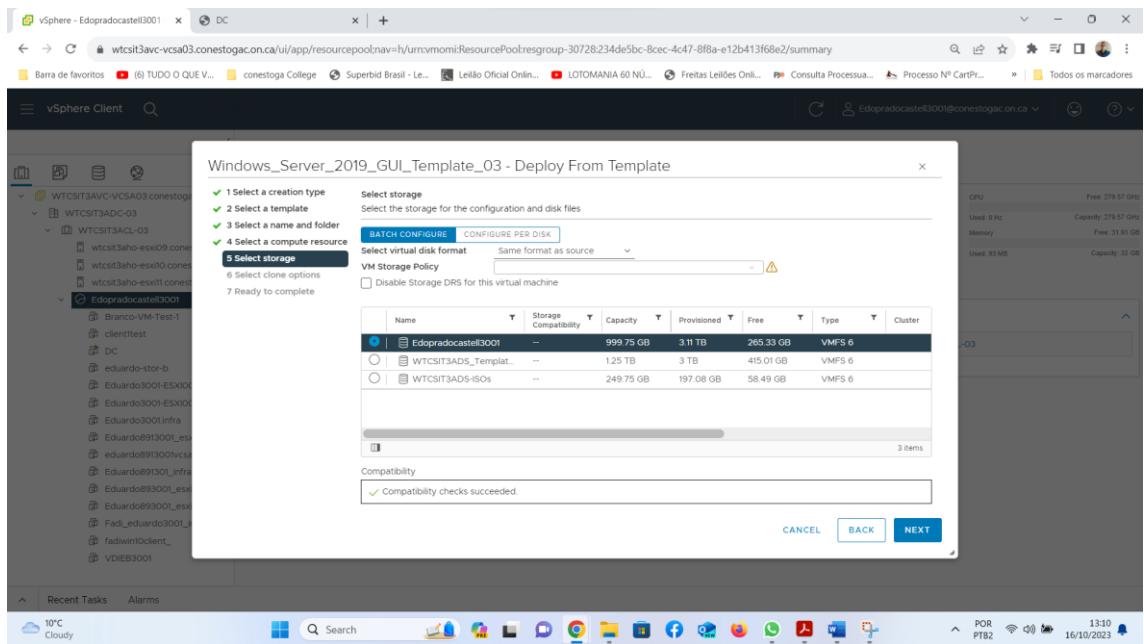
This step, put virtual machine name as DCC, and chose location, select my. Select next



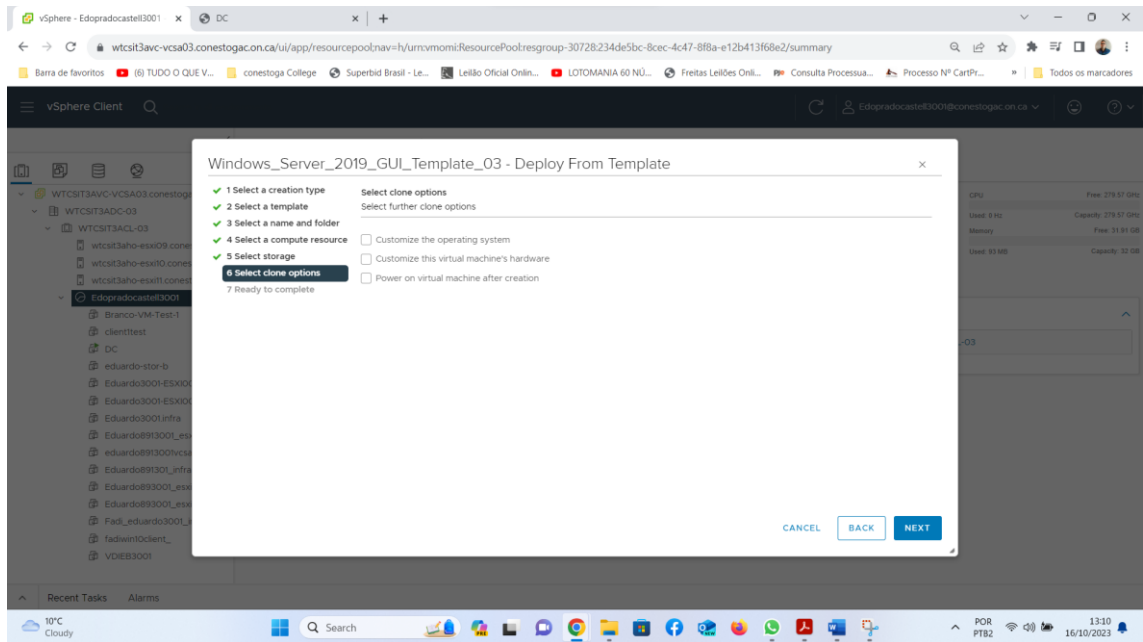
In this step, place the target resources. I choose mine. Select next



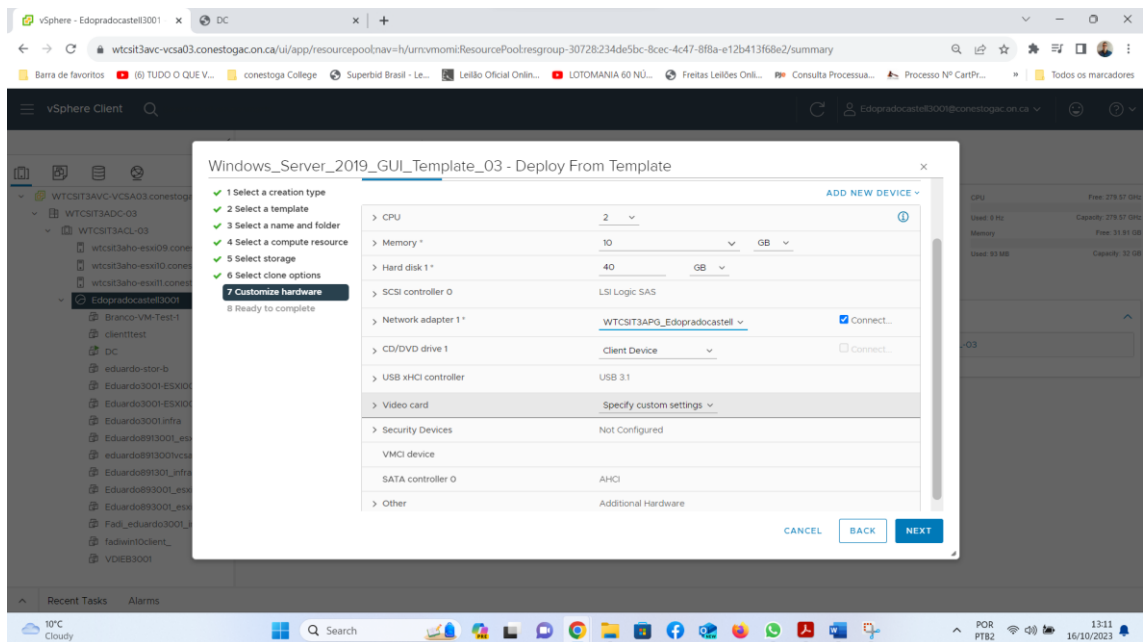
In this step, select my disk and then select next



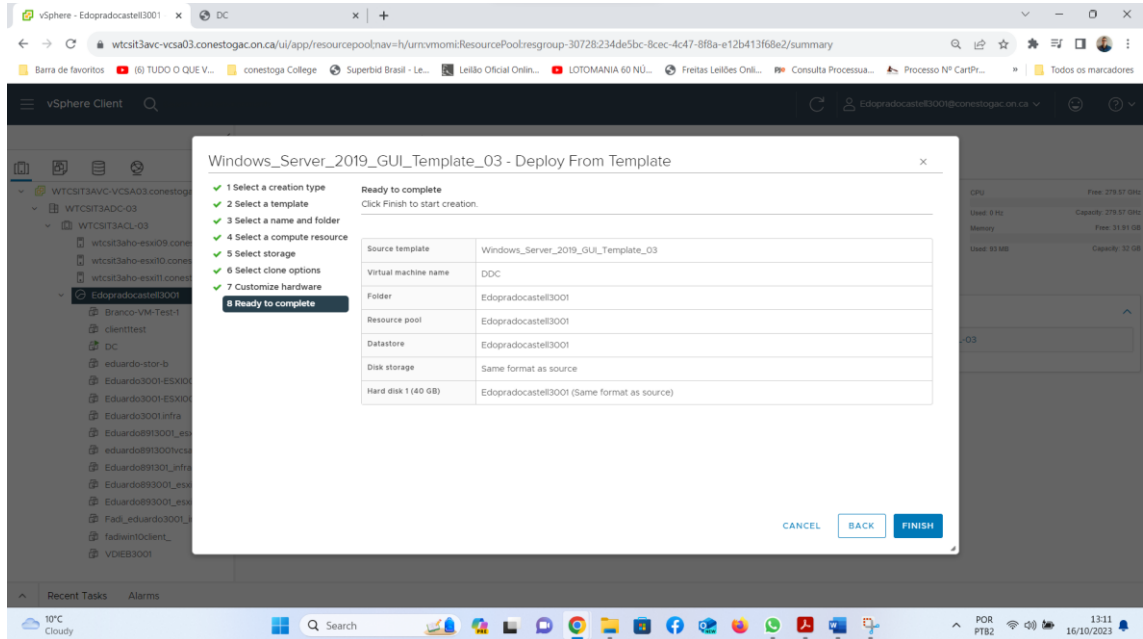
In this step, I check mark in Customize machine hardware, select next



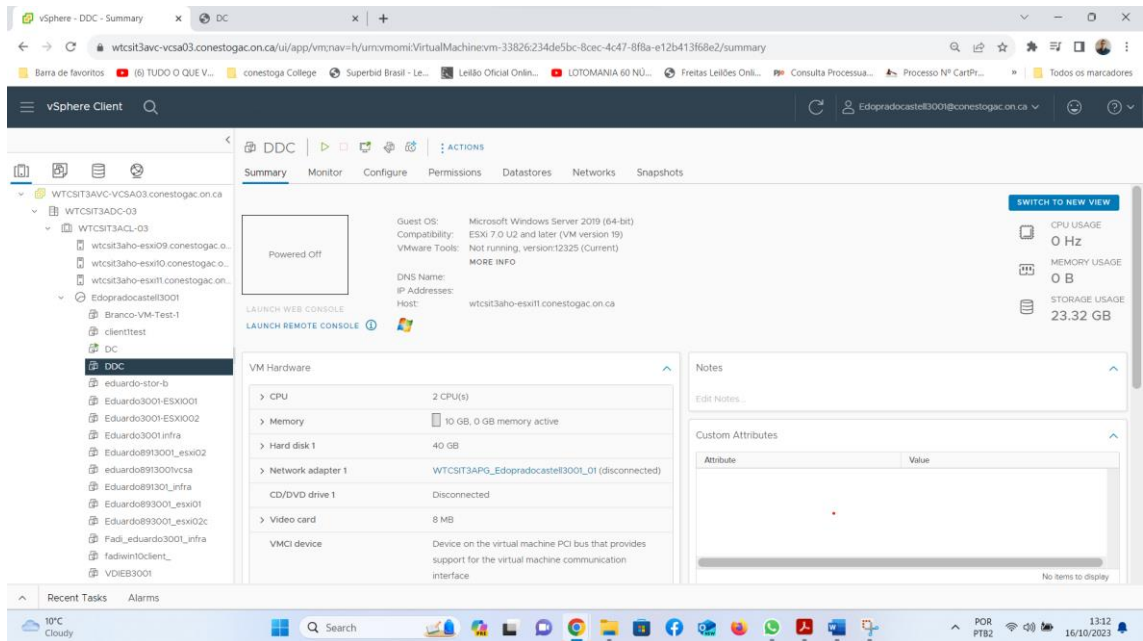
In this last step, I customize and selected 10 GB of RAM and navigated to network adapter and selected the first network. Select next



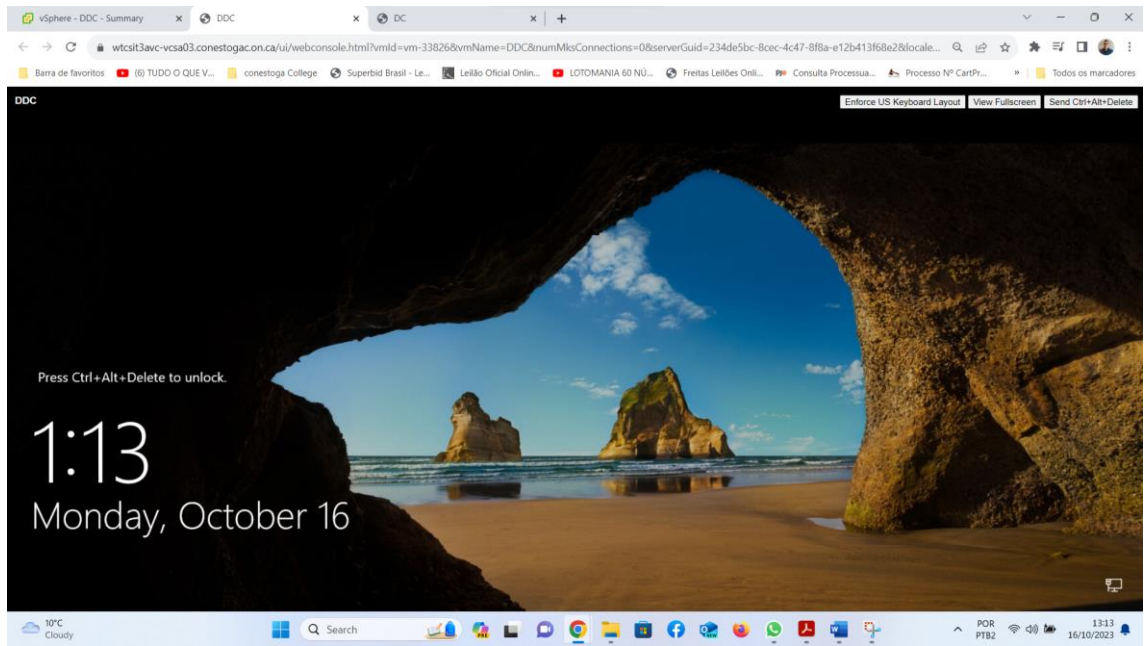
Click Finish



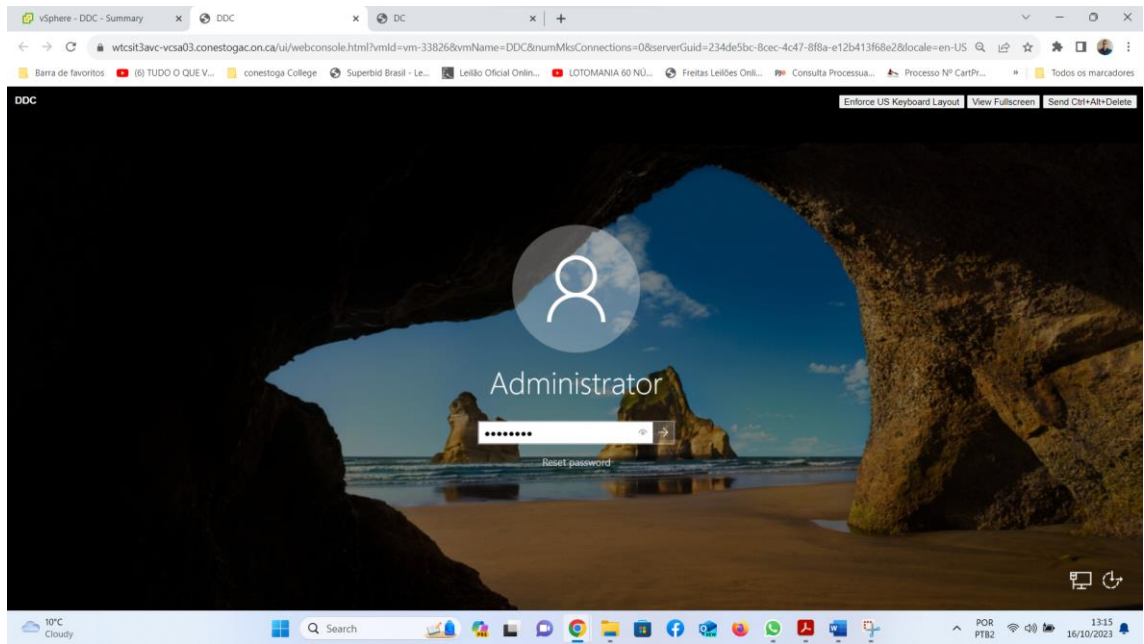
On this screen I just selected the VM with name DDC and click on play to start the vm



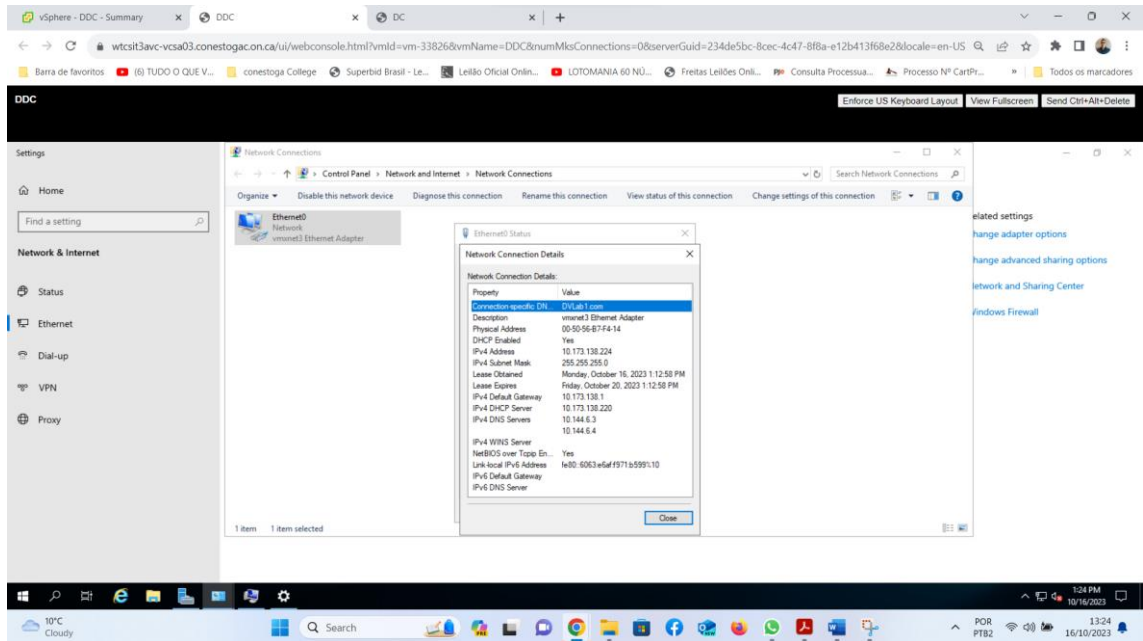
Click on send ctrl +alt + Delete



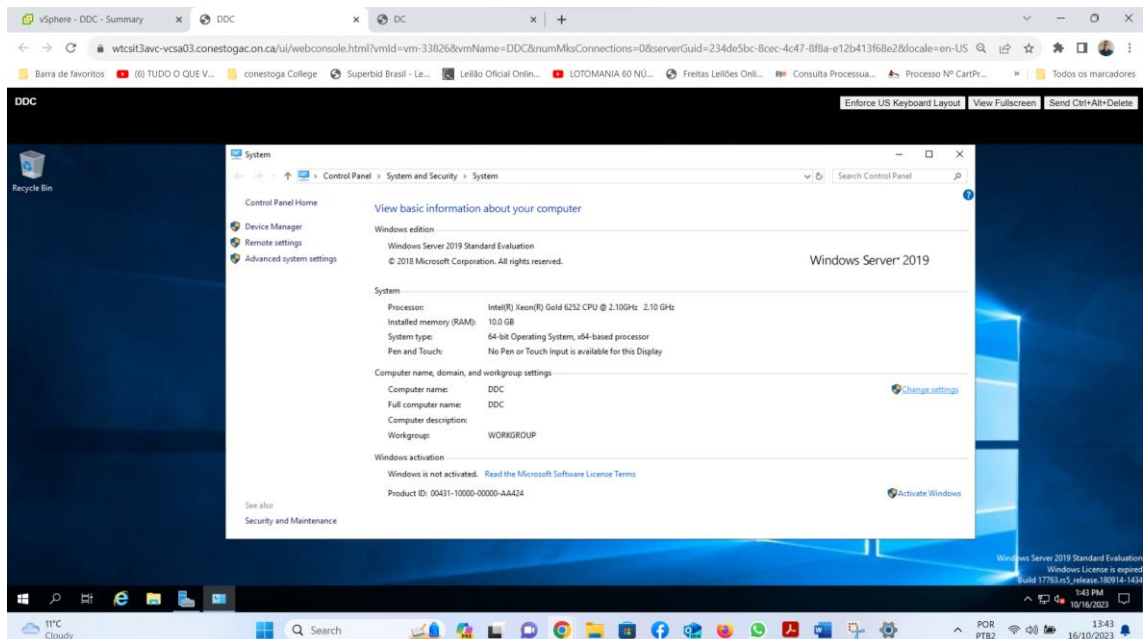
Loguin as administrator



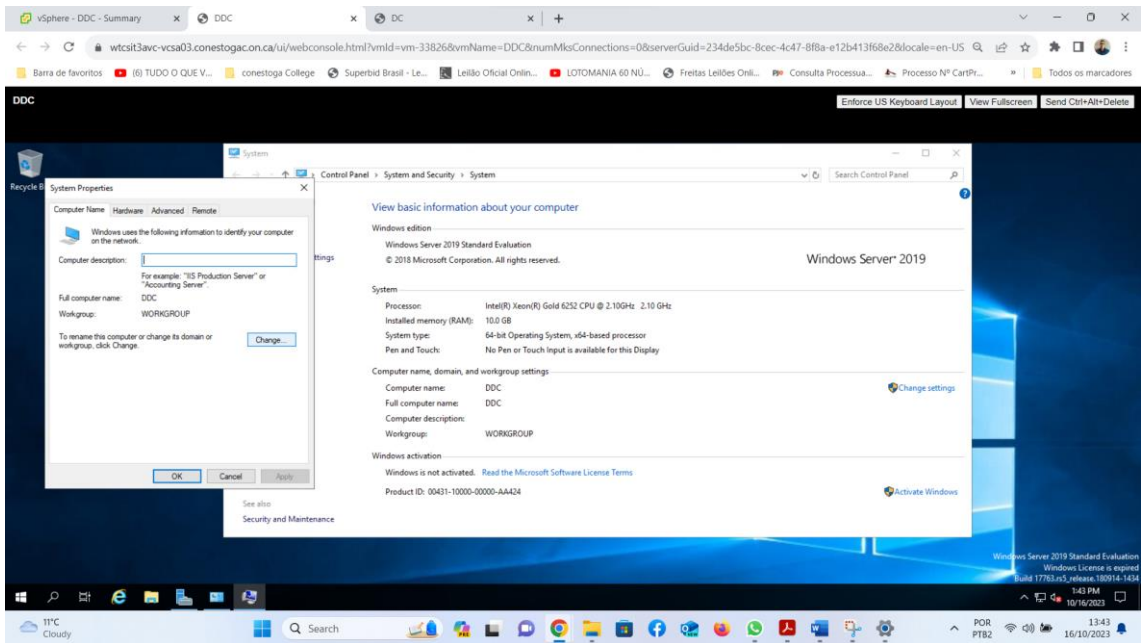
Navigating to control panel, networking and internet, network connections. We can see that this machine has already received the IP address automatically.



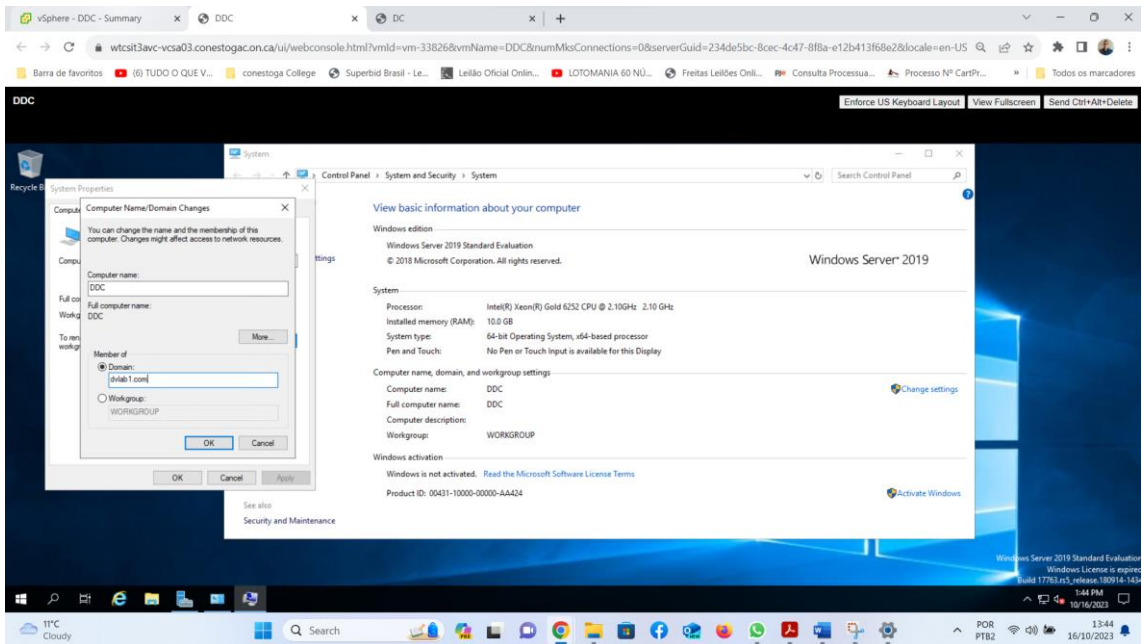
In this step we will connect the machine to the domain. Navigating to control panel, system and security, system. then click on change settings



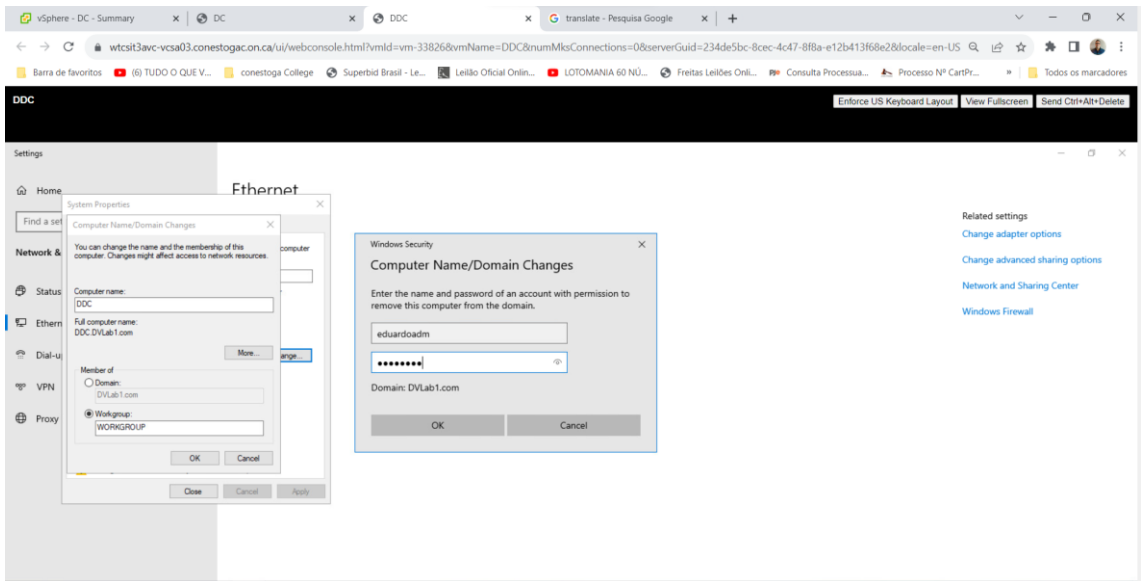
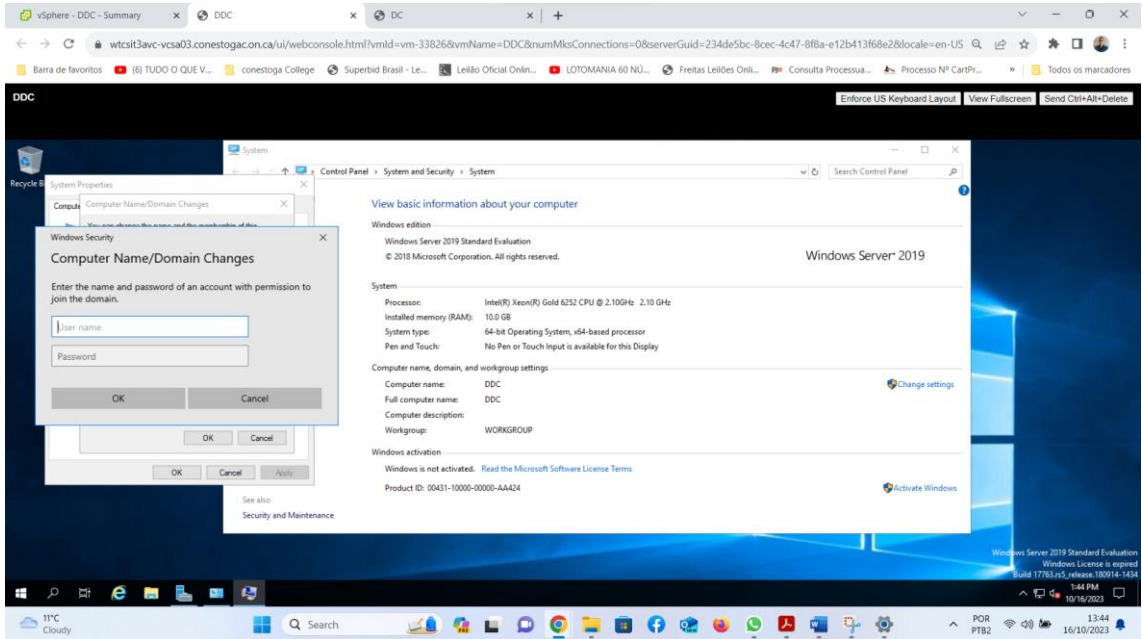
in this window click on change



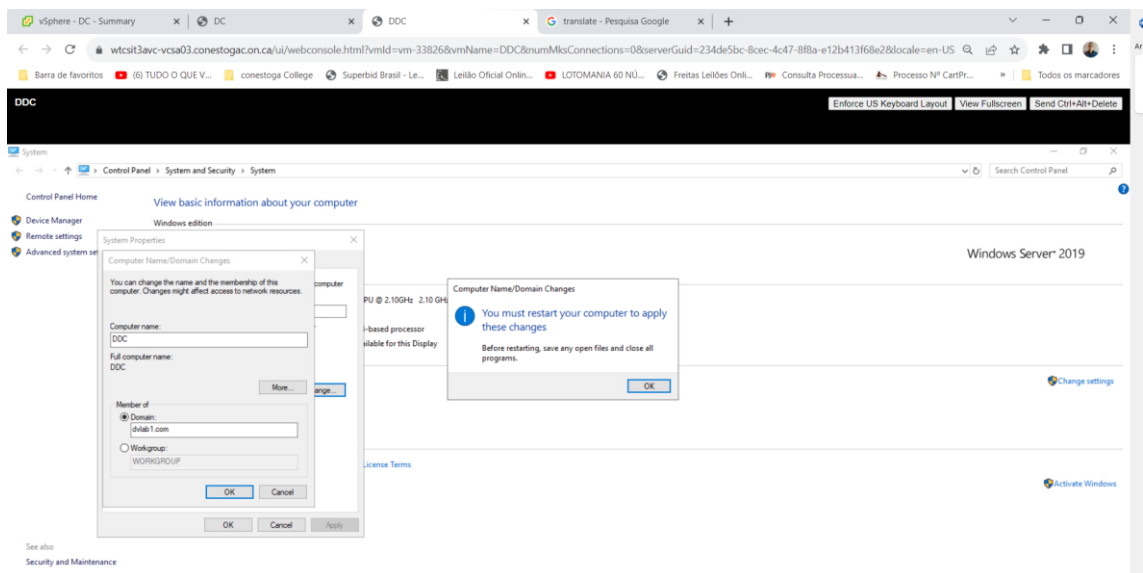
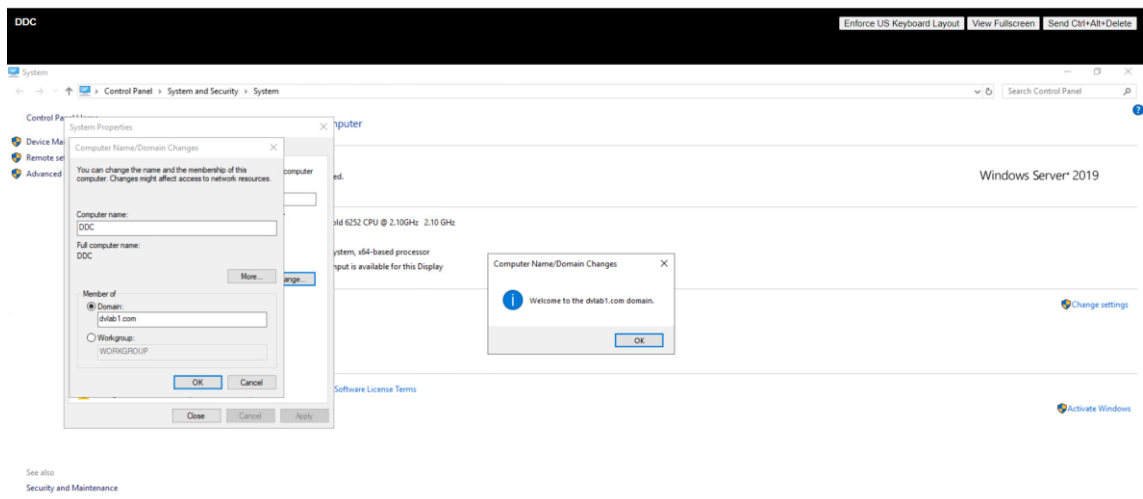
then in this window, click mark domain and type dvlab1.com click ok

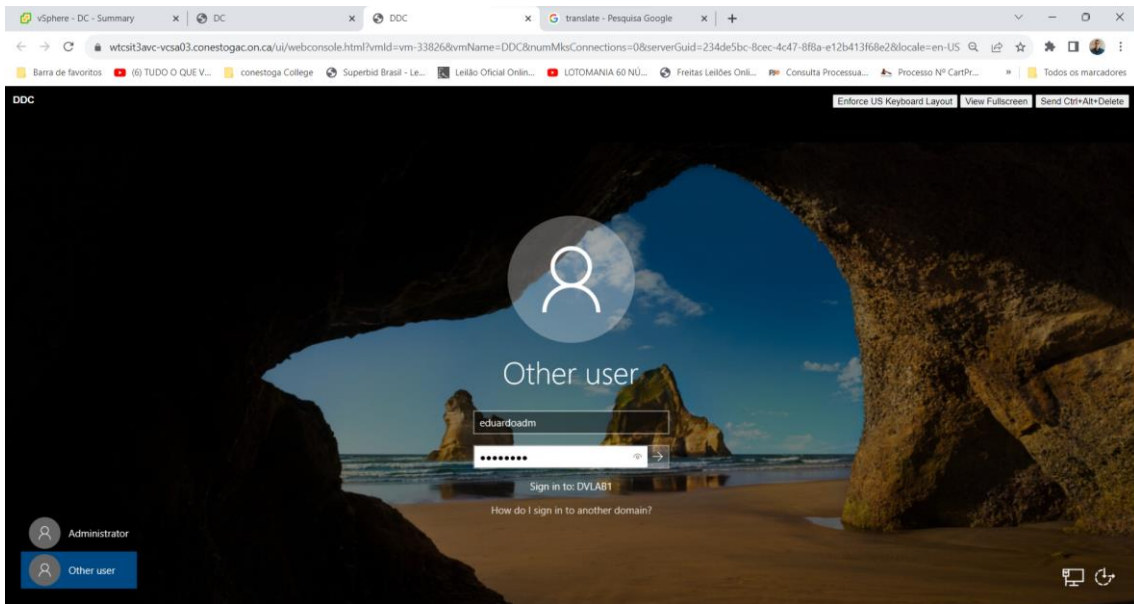


This window requires a username and password.



In this step has been completed. After that, the machine asks to restart.





Going to DC, the computer shows the name DDC.

