

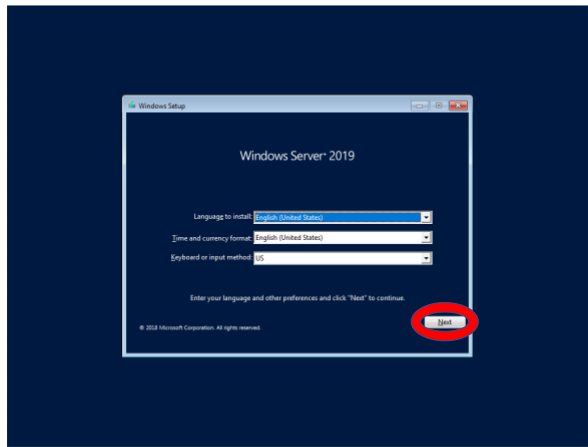
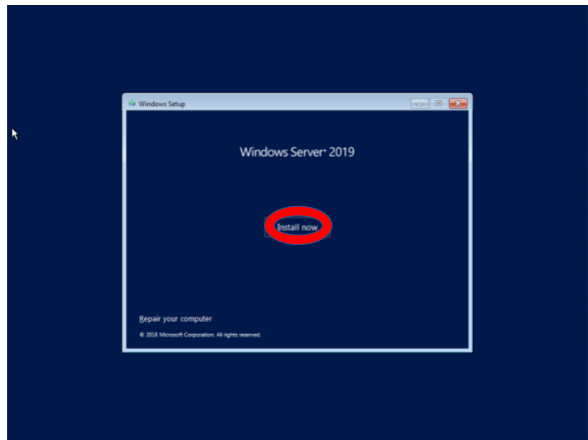
Setting up an Active Directory Domain Controller using Windows Server 2019

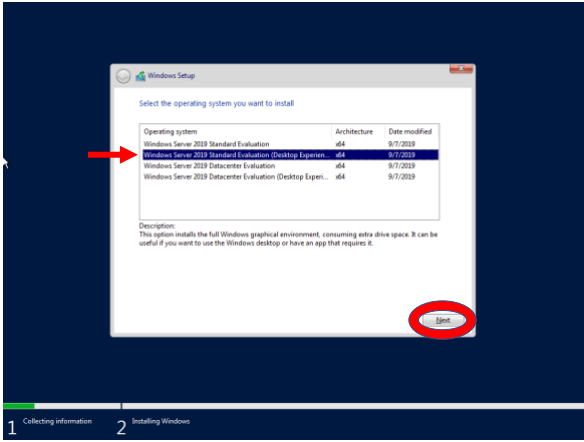
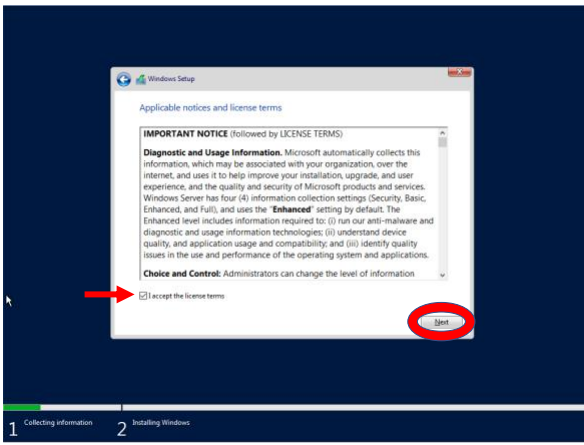
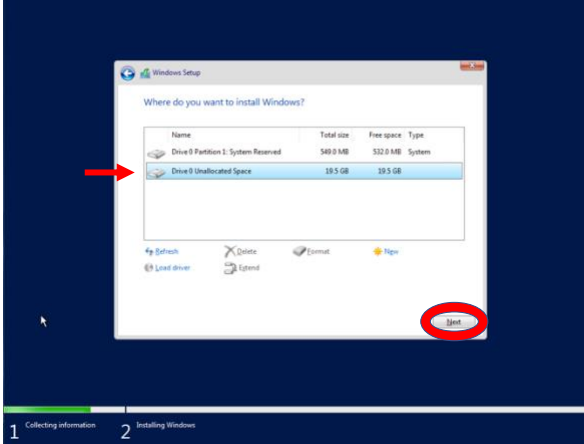
-Rocco Tironi

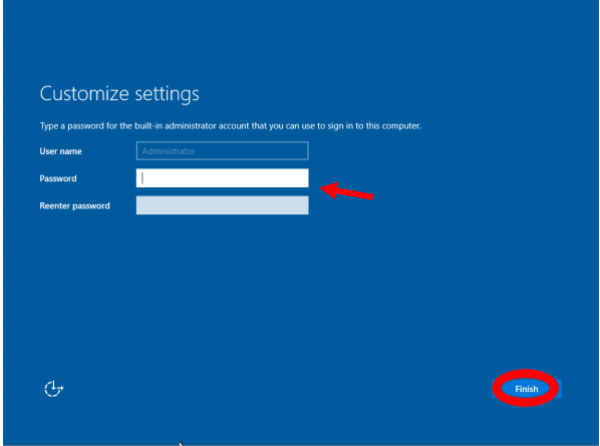
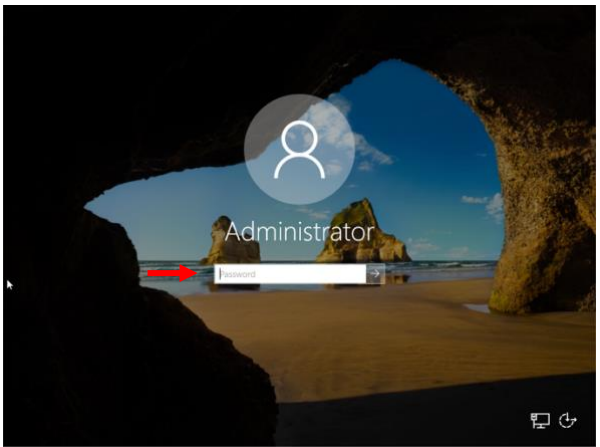
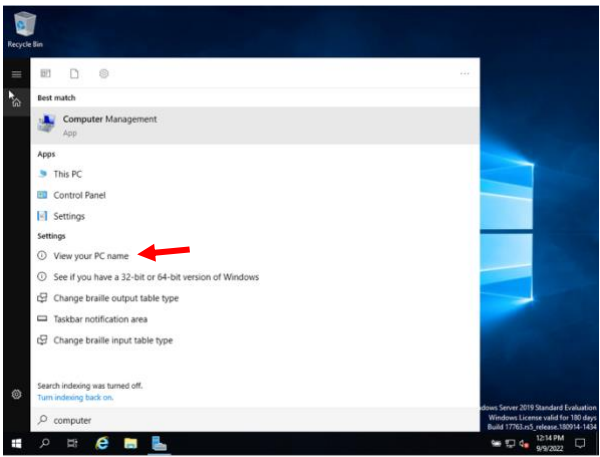
Prerequisites:

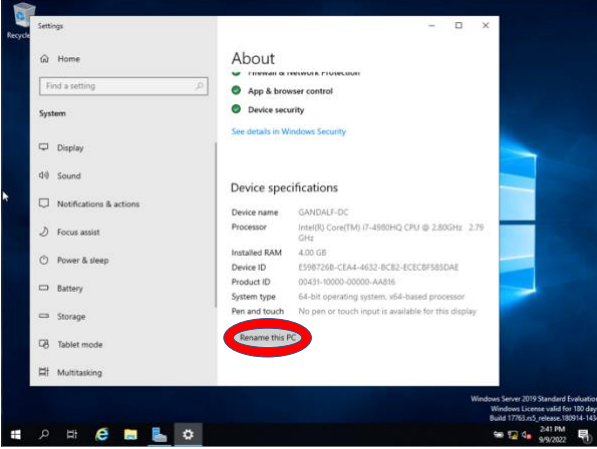
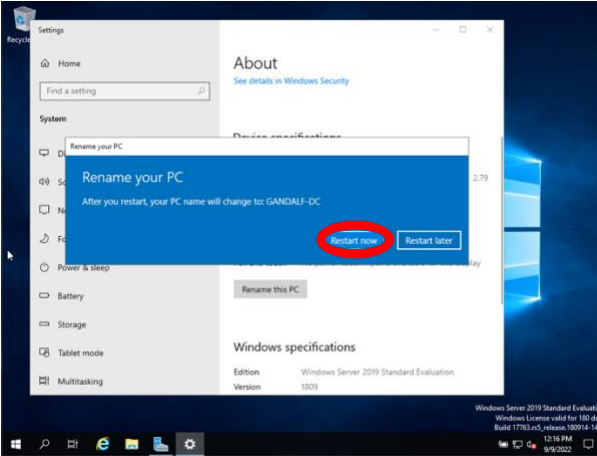
- Virtualization software (VM Ware or Virtual Box)
- Windows Server 2019 ISO file
- ISO file mounted in a virtual machine and system specifications set (can be found in "Setting up a Windows Server 2019 using Virtual Box")

Step 1 - Install and configure Windows Server 2019

1.1	We'll start off by configuring the main settings of your server. Start by choosing your language, time/currency, and keyboard format and then select "Next".	
1.2	Select "Install Now".	

<p>1.3</p>	<p>Next, we'll select the operating system to be installed. For our purposes we will be using the Standard Evaluation and Desktop Experience.</p> <p><i>*Without the DE, everything on the server will be run through a command line interface. I will do this sometime in the future.</i></p>	
<p>1.4</p>	<p>Check the box to accept the license terms and select "Next".</p>	
<p>1.5</p>	<p>Select "New" to set up the partition structure. Once finished, select the drive with the unallocated space. This is where Windows Server will be installed. Then select "Next" to start the installation.</p> <p>The This will take a few minutes and once the process has completed, Windows will automatically restart the system.</p>	

1.6	<p>Once the server restarts, you will be brought a screen to create a password for your account. Do this and select "Finish".</p>	
1.7	<p>After your password has been created, you will be brought to the initial login page. Go ahead and login with the password you just created.</p>	
1.8	<p>To rename your server, click on the Windows icon on the left side of the Task bar and type in the word "computer". Then select "View your PC name".</p>	

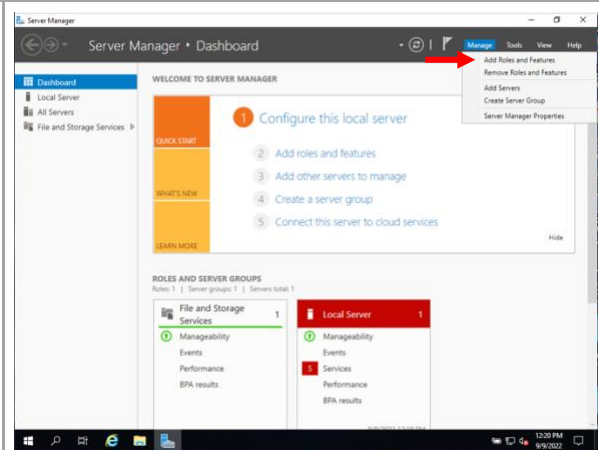
<p>1.9</p>	<p>Scroll down a little bit and select the "Rename this PC" button. You can name your server whatever you want.</p> <p>This is going to be the domain controller for my domain and I want to have a LOTR themed domain so I'm naming mine GANDALF-DC.</p>	 <p>The screenshot shows the Windows Settings application, specifically the 'About' page. The left sidebar shows the 'System' category selected. The main pane displays system information under 'Device specifications'. At the bottom of this section, the 'Rename this PC' button is highlighted with a red circle. The background shows a Windows Server 2019 Standard Evaluation desktop with a blue logo wallpaper.</p>
<p>1.10</p>	<p>After renaming your server, select "Restart Now"</p>	 <p>The screenshot shows the same Windows Settings 'About' page, but with a 'Rename your PC' dialog box open in the foreground. The dialog box contains the text 'After you restart, your PC name will change to: GANDALF-DC.' and has two buttons: 'Restart now' (circled in red) and 'Restart later'. The 'Rename this PC' button from the background is still visible but dimmed.</p>

Step 2 - Configuring Active Directory Domain Services (ADDS)

2.1

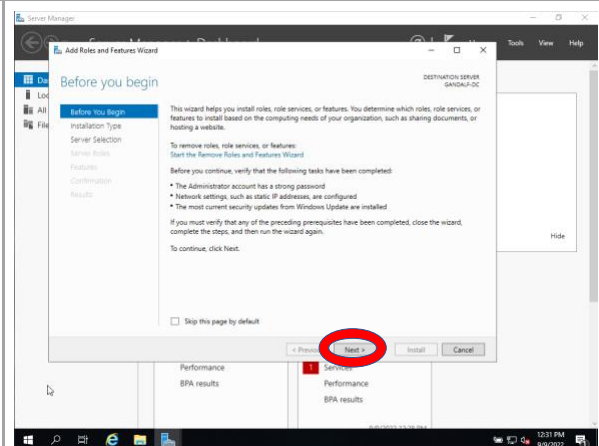
Once logged back in, Server Manager will open at startup. From here we are going to configure Active Directory Domain Services.

To start, select "Manage" > "Add Roles and Features".



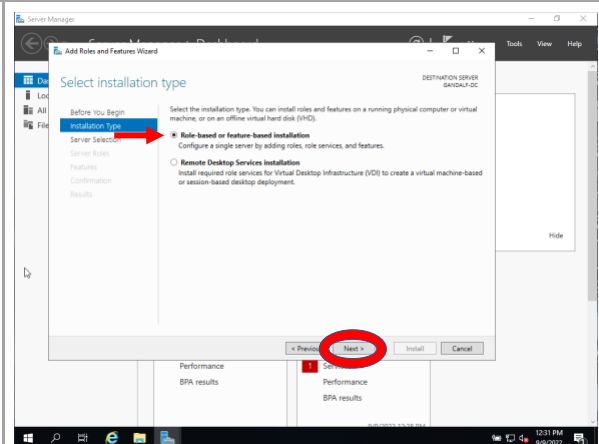
2.2

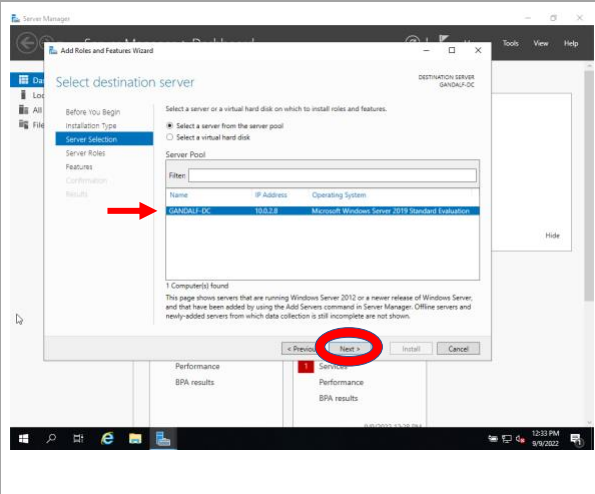
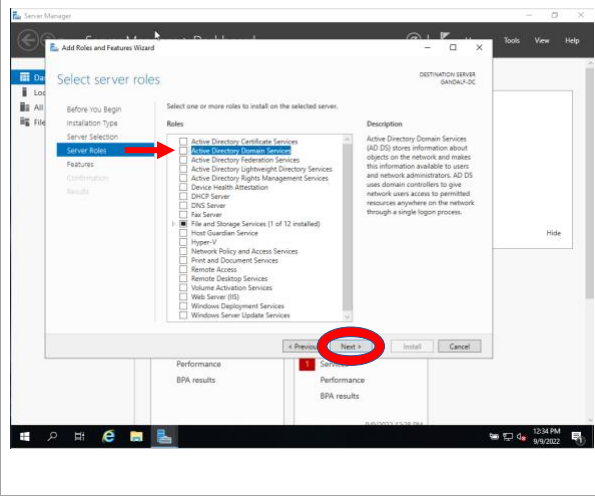
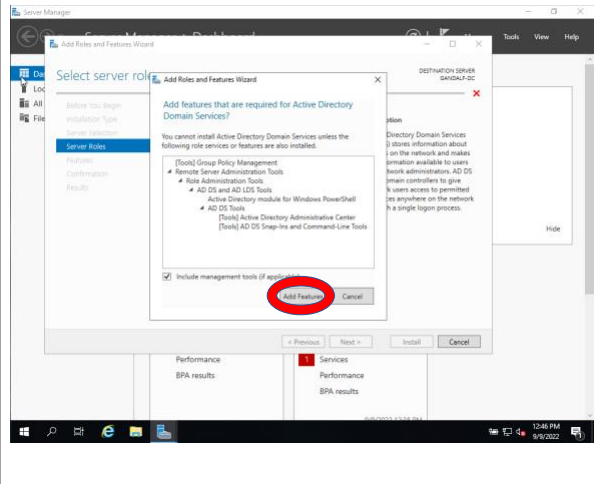
On the first screen, select "Next".

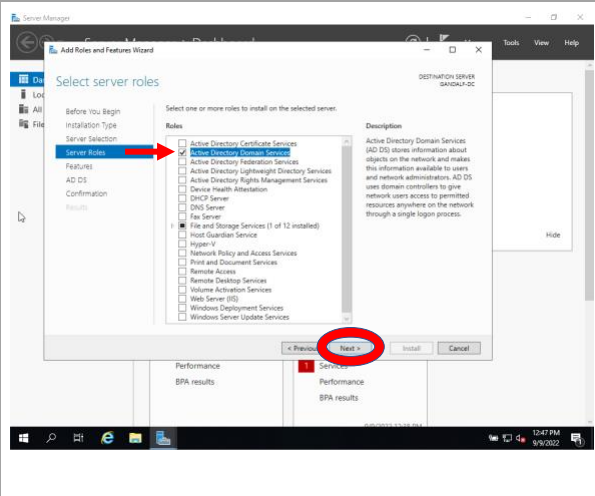
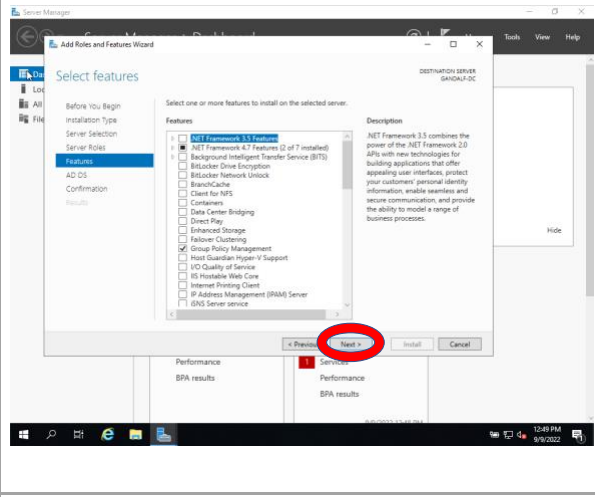
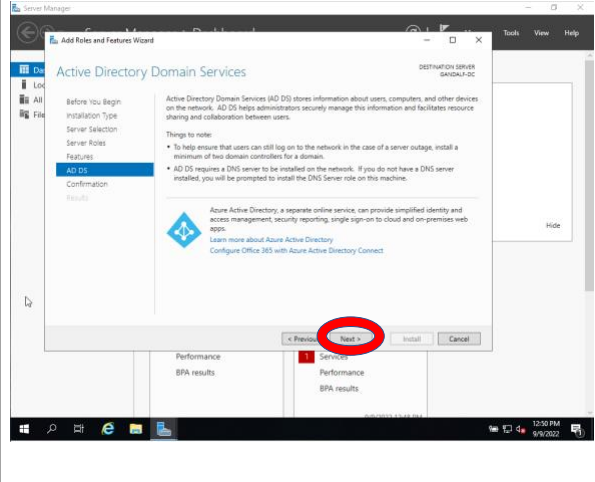


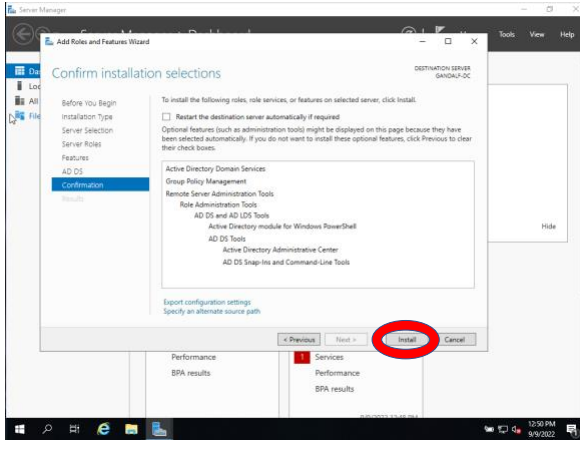
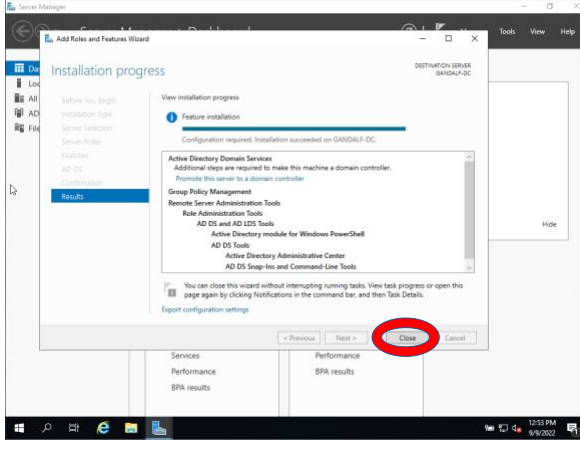
2.3

Next, make sure "Role-based or feature-based installation" is selected, then select "Next".



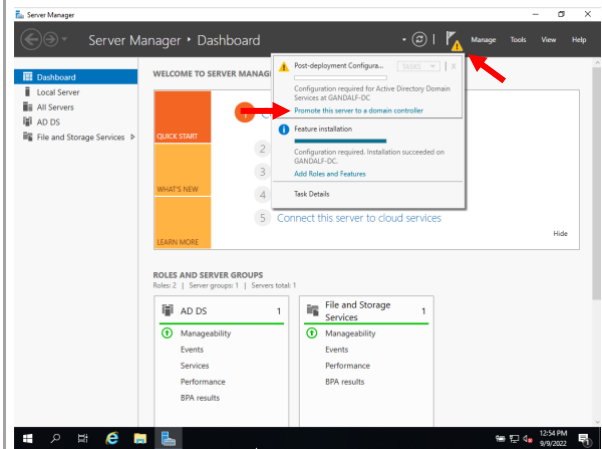
2.4	Make sure your server is highlighted, then select "Next".	
2.5	Next, select the box next to "Active Directory Domain Services"	
2.6	In the window that pops up, select "Add Features".	

2.7	There should now be a check mark in the box next to Active Directory Domain Services. Select "Next".	
2.8	Select "Next".	
2.9	Select "Next".	

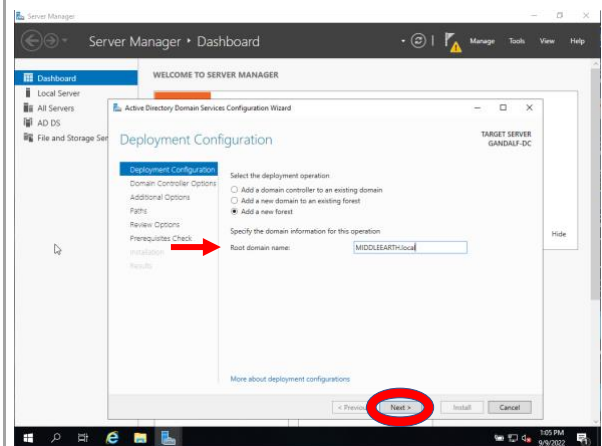
2.10	Select "Install" and let the installation process complete.	
2.11	Once the installation has finished, select "Close".	

Step 3 - Promoting your server to Domain Controller

3.1 Once back on the Server Dashboard, you should see a yellow alert along the top menu bar next to the flag. Click the Alert and select Promote this server to a domain controller

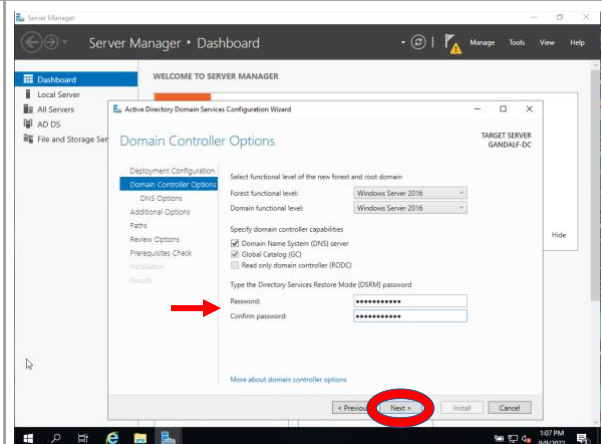


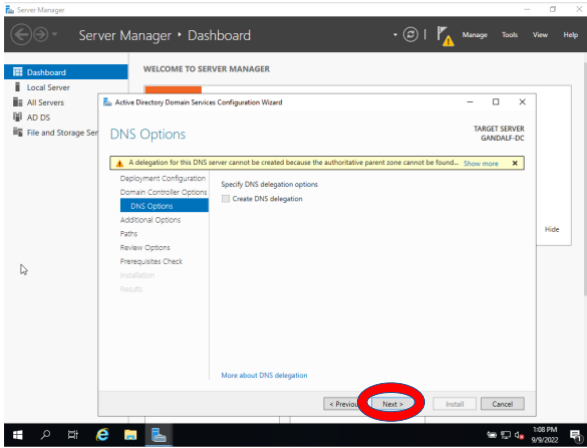
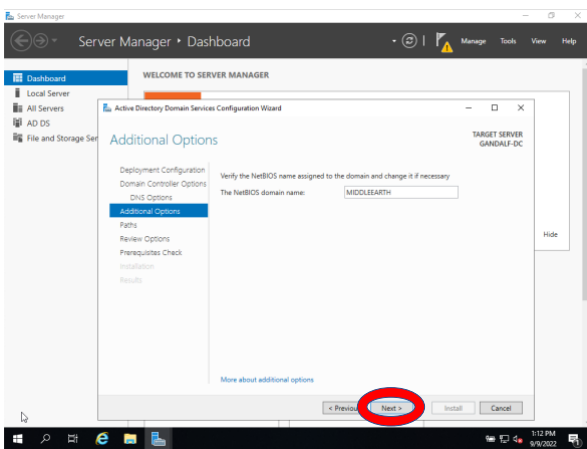
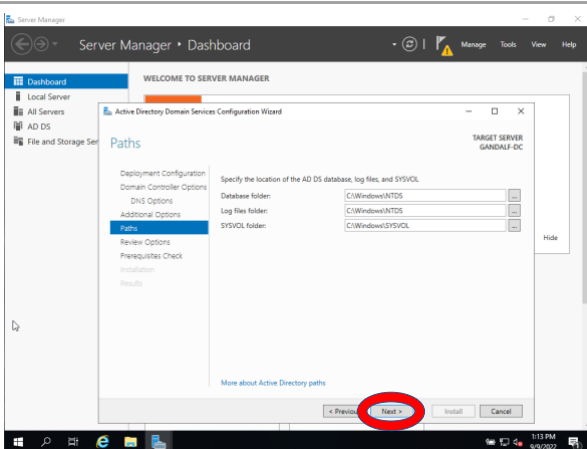
3.2 Next, select "Add a new forest" from the deployment operation list and enter a name for the Root domain name. This will be the name of your domain. Then select "Next".

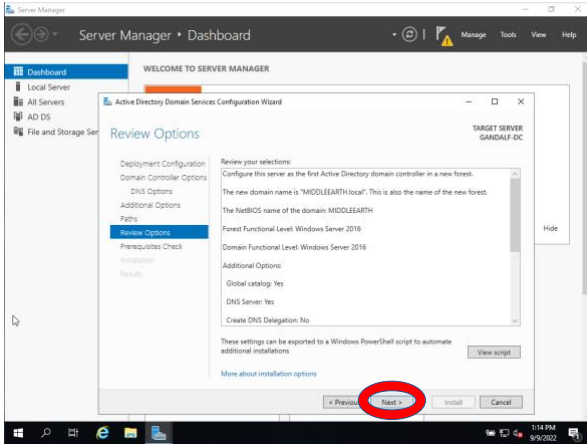
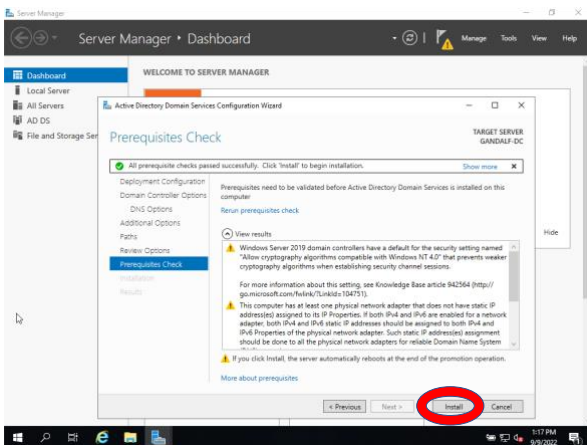
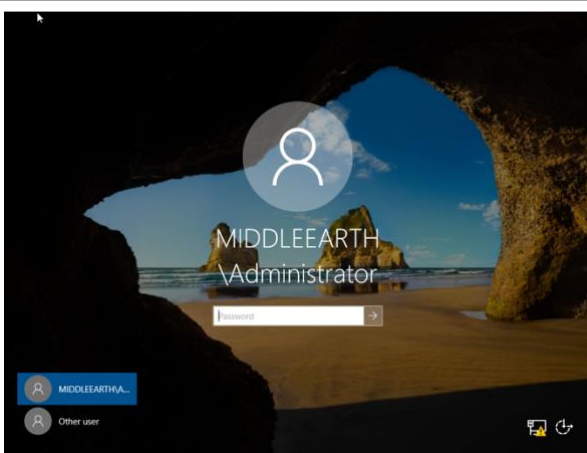


3.3 Next, create a Domain Services Restore Mode (DSRM) password and then select "Next". This password will be for operating in Safe Mode.

*It can be the same as your account password, but it is not recommended.



3.4	Select "Next".	 <p>The screenshot shows the 'DNS Options' step of the 'Active Directory Domain Services Configuration Wizard'. The wizard is titled 'WELCOME TO SERVER MANAGER' and 'Active Directory Domain Services Configuration Wizard'. The 'DNS Options' step is selected in the left-hand navigation pane. The main area shows a warning message: 'A delegation for this DNS server cannot be created because the authoritative parent zone cannot be found...'. Below the warning, there are options for 'Specify DNS delegation options' and 'Create DNS delegation'. The 'Next >' button at the bottom right is circled in red.</p>
3.5	After a few seconds, your domain name should populate automatically into the NetBIOS domain name field. When it does, select "Next".	 <p>The screenshot shows the 'Additional Options' step of the 'Active Directory Domain Services Configuration Wizard'. The wizard is titled 'WELCOME TO SERVER MANAGER' and 'Active Directory Domain Services Configuration Wizard'. The 'Additional Options' step is selected in the left-hand navigation pane. The main area shows a section for 'Verify the NetBIOS name assigned to the domain and change it if necessary'. The 'NetBIOS domain name' field is populated with 'MIDDLEEARTH'. The 'Next >' button at the bottom right is circled in red.</p>
3.6	Select "Next".	 <p>The screenshot shows the 'Paths' step of the 'Active Directory Domain Services Configuration Wizard'. The wizard is titled 'WELCOME TO SERVER MANAGER' and 'Active Directory Domain Services Configuration Wizard'. The 'Paths' step is selected in the left-hand navigation pane. The main area shows a section for 'Specify the location of the AD DS database, log files, and SYSVOL'. There are three text boxes for 'Database folder', 'Log file folder', and 'SYSVOL folder', all containing 'C:\Windows\NTDS'. The 'Next >' button at the bottom right is circled in red.</p>

3.7	Select "Next".	 <p>The screenshot shows the 'Review Options' step of the Active Directory Domain Services Configuration Wizard. The 'Next >' button at the bottom right is circled in red.</p>
3.8	Wait for the Prerequisites Check to run and when it's finished, select "Install".	 <p>The screenshot shows the 'Prerequisites Check' step. A green checkmark indicates that all prerequisites have passed successfully. The 'Install' button at the bottom right is circled in red.</p>
3.9	<p>After the installation has completed, the machine will automatically restart.</p> <p>At the main login screen, your username should read <DOMAIN>/Administrator, in my case MIDDLEEARTH/Administrator.</p> <p>This sever is now the Domain Controller for your Active Directory Domain.</p>	 <p>The screenshot shows the Windows login screen. The username field is populated with 'MIDDLEEARTH\Administrator'. The background is a scenic view of a beach and rocks.</p>