



SECURITY+ V4 LAB SERIES

Lab 24: Performing Backups

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Material in this Lab Aligns to the Following	
CompTIA Security+ (SY0-601) Exam Objectives	2.5: Given a scenario, implement cybersecurity resilience
All-In-One CompTIA Security+ Sixth Edition ISBN-13: 978-1260464009 Chapters	13: Cybersecurity Resilience

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Introduction

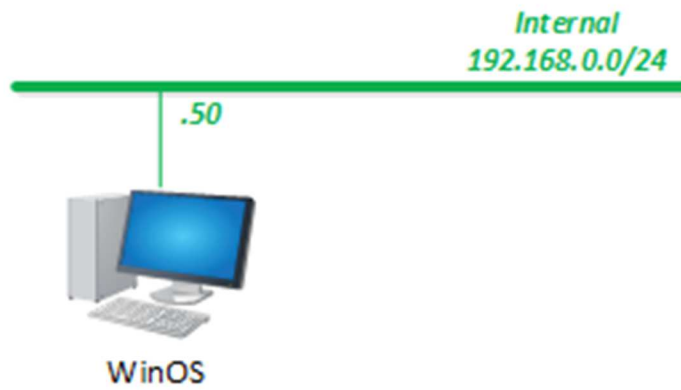
In this lab, you will configure a backup on a Windows server. You will then customize the backup settings to back up the file to a local drive and recover it.

Objective

In this lab, you will perform the following tasks:

- Learning disaster recovery and continuity of operations concepts

Lab Topology



Lab Settings

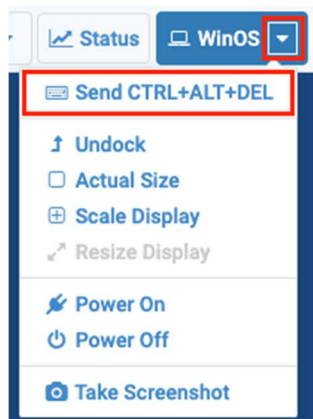
The information in the table below will be needed in order to complete the lab. The task sections below provide details on the use of this information.

Virtual Machine	IP Address	Account (if needed)	Password (if needed)
WinOS	192.168.0.50	Administrator	NDGlabpass123!

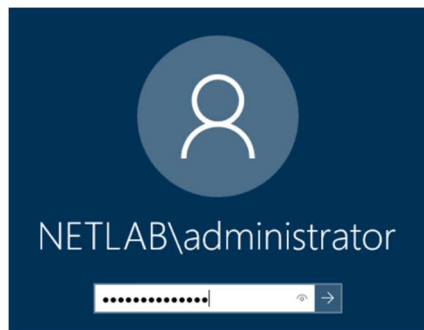
1 Schedule a Windows Server Backup

In this task, you will set up and schedule a Windows server backup. Then you will customize the Windows server backup to target a remote destination on the network.

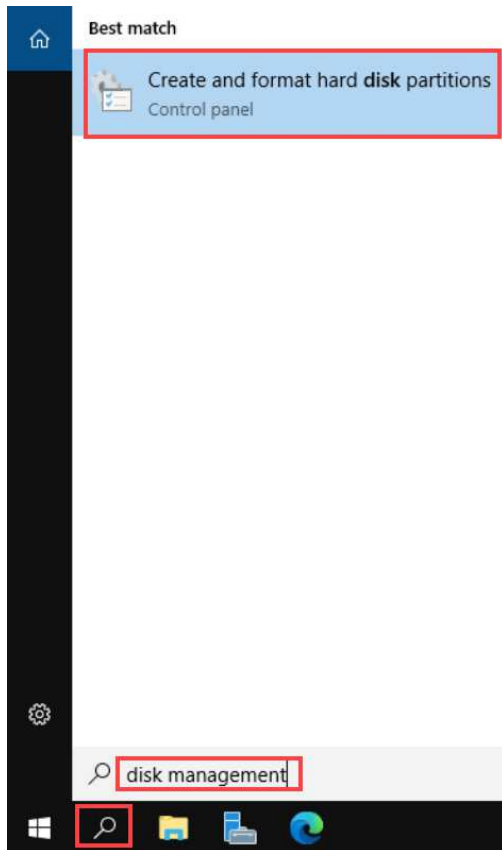
1. Launch the **WinOS** virtual machine to access the graphical login screen. While on the splash screen, focus on the **NETLAB+** tabs. Click the dropdown menu for the **WinOS** tab and click on **Send CTRL+ALT+DEL**.



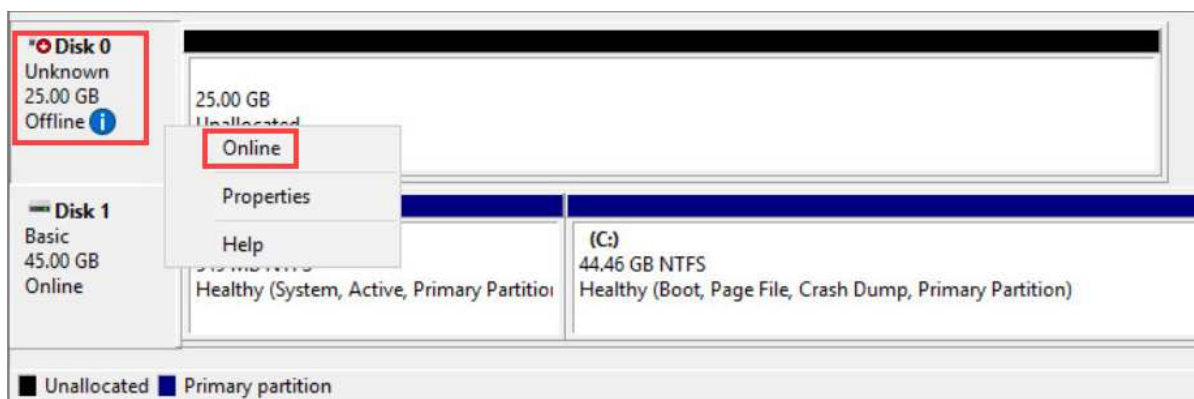
2. Log in as **Administrator** using the password **NDGlabpass123!**.



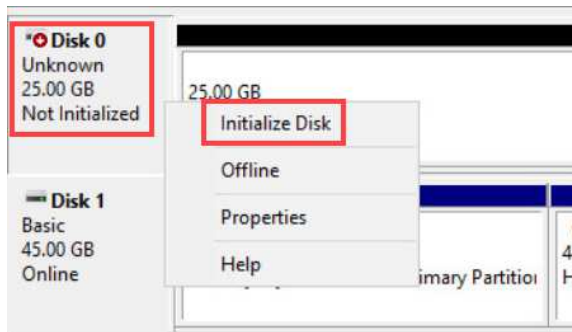
- Once logged in, click the search icon and type **disk management** into the search field. From the results, click on **Create and format hard disk partitions**.



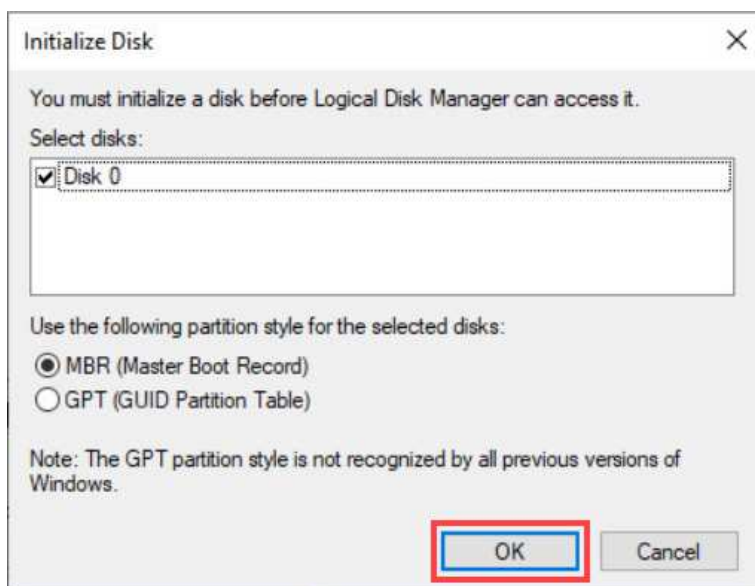
- In the *Disk Management* window, in the bottom pane, right-click on **Disk 0** and select **Online**.



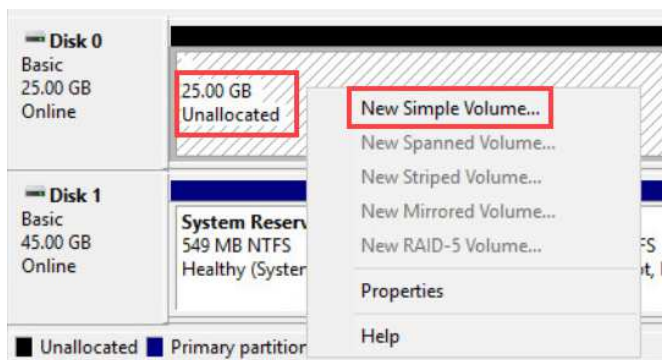
5. Notice the message changes from *Offline* to *Not Initialized*. Right-click on **Disk 0** once more and this time select **Initialize Disk**.



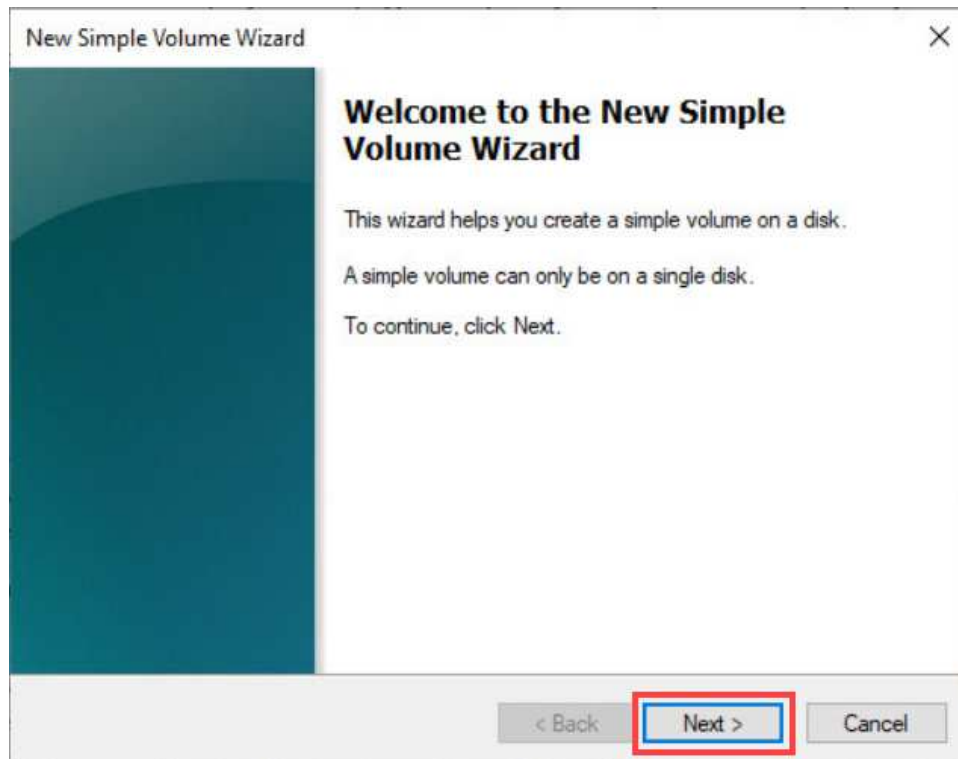
6. An *Initialize Disk* window appears, leave the defaults, and click **OK**.



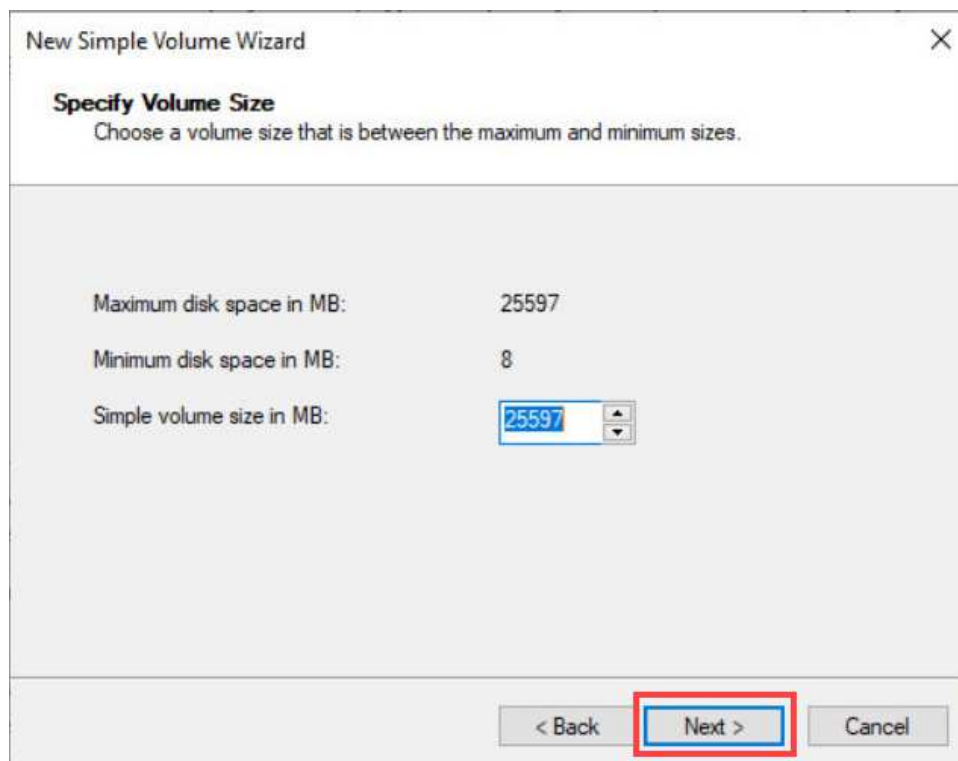
7. Notice *Disk 0* appears *Online*. Right-click on the **Unallocated** space for *Disk 0* and select **New Simple Volume**.



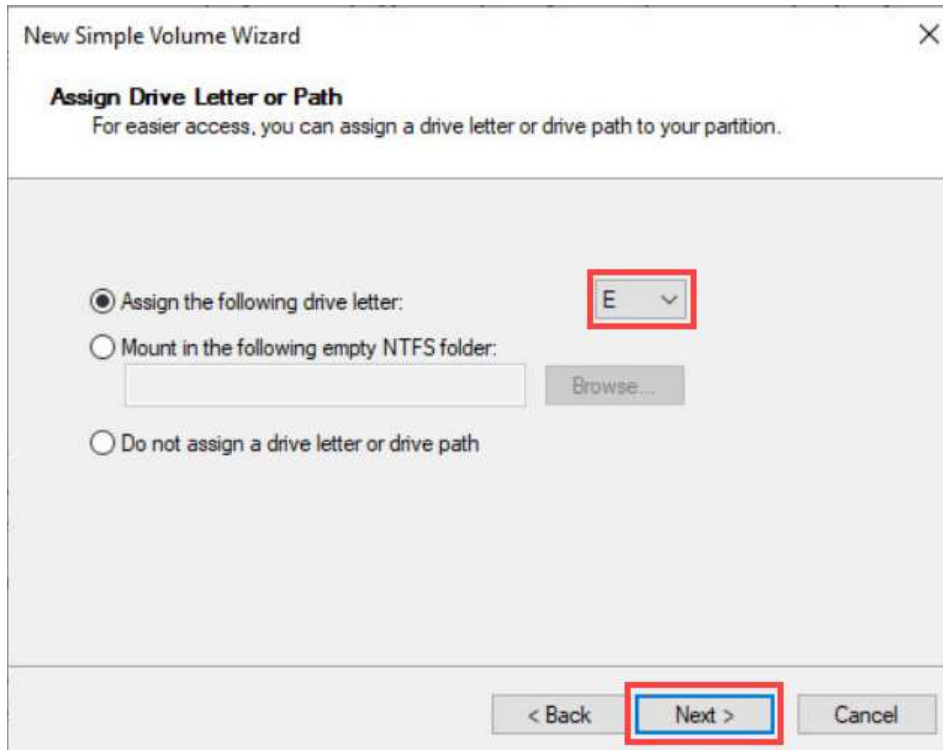
8. A *New Simple Volume Wizard* appears, click **Next**.



9. For the next step in the wizard, leave the default value of **25597 MB** and click **Next**.

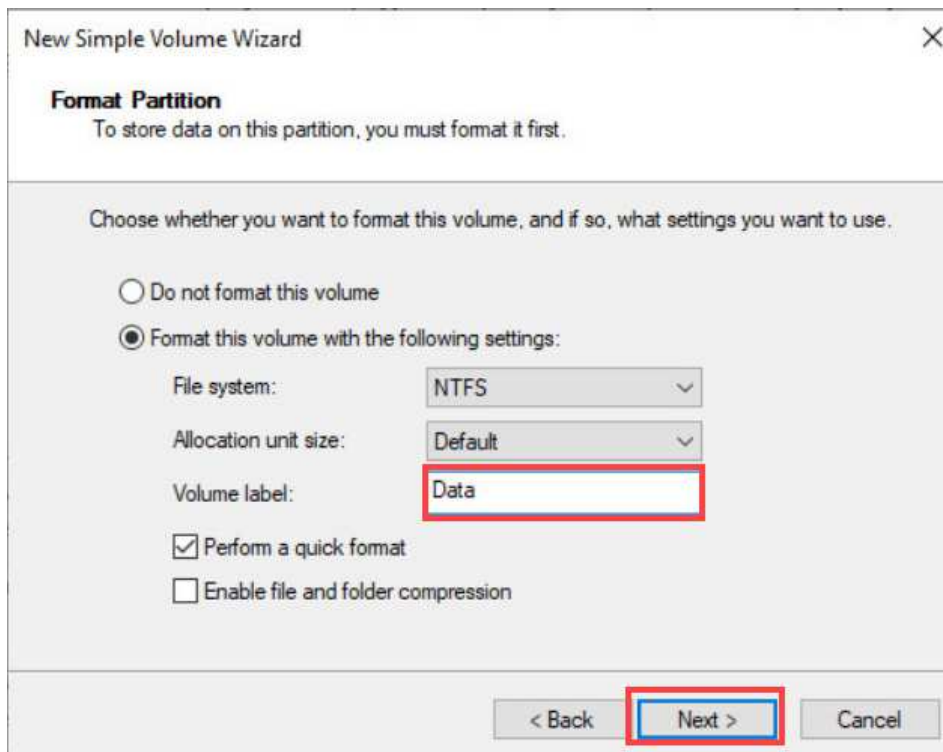


10. Assign the drive letter **E** and click **Next**.



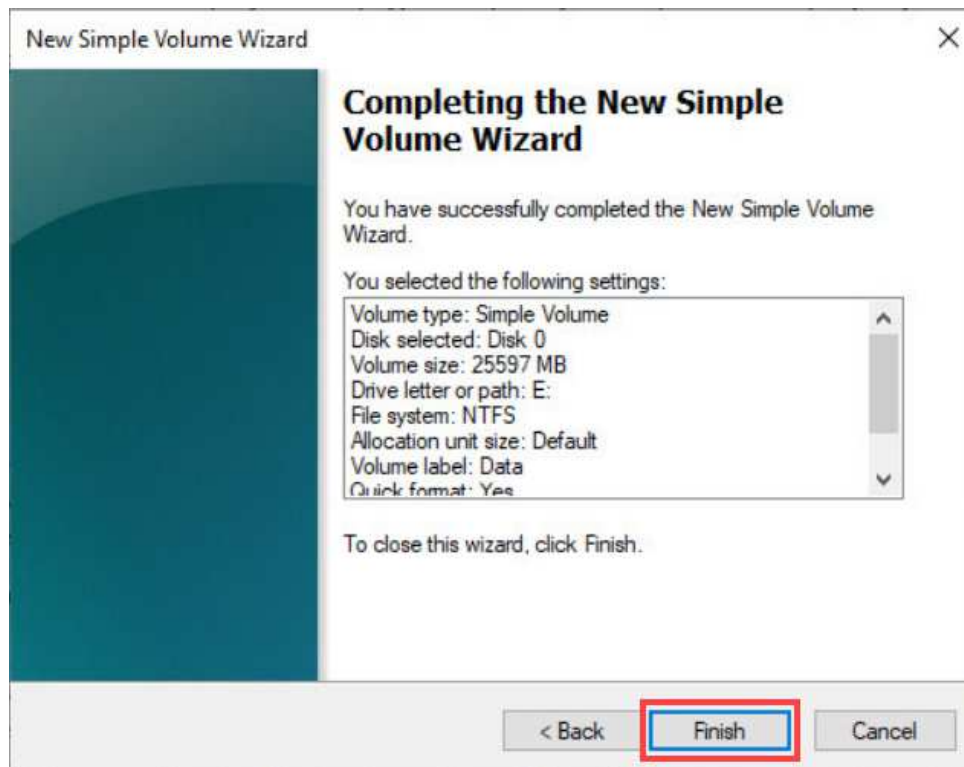
The screenshot shows the 'New Simple Volume Wizard' window at the 'Assign Drive Letter or Path' step. The title bar says 'New Simple Volume Wizard' with a close button. Below the title, the section is 'Assign Drive Letter or Path' with the instruction 'For easier access, you can assign a drive letter or drive path to your partition.' There are three radio button options: 'Assign the following drive letter:' (selected), 'Mount in the following empty NTFS folder:', and 'Do not assign a drive letter or drive path'. The 'Assign the following drive letter:' option has a dropdown menu showing 'E'. The 'Mount in the following empty NTFS folder:' option has a text box and a 'Browse...' button. At the bottom, there are three buttons: '< Back', 'Next >' (highlighted with a red box), and 'Cancel'.

11. Rename the *Volume label* to **Data** and click **Next**.

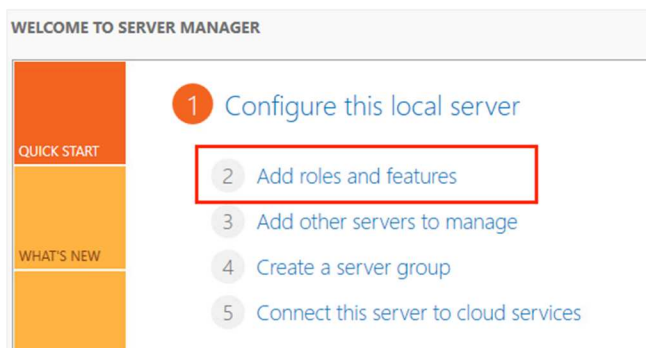
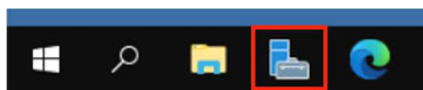


The screenshot shows the 'New Simple Volume Wizard' window at the 'Format Partition' step. The title bar says 'New Simple Volume Wizard' with a close button. Below the title, the section is 'Format Partition' with the instruction 'To store data on this partition, you must format it first.' There is a text box that says 'Choose whether you want to format this volume, and if so, what settings you want to use.' There are two radio button options: 'Do not format this volume' and 'Format this volume with the following settings:' (selected). Under the selected option, there are three settings: 'File system:' (NTFS), 'Allocation unit size:' (Default), and 'Volume label:' (Data, highlighted with a red box). There are also two checkboxes: 'Perform a quick format' (checked) and 'Enable file and folder compression' (unchecked). At the bottom, there are three buttons: '< Back', 'Next >' (highlighted with a red box), and 'Cancel'.

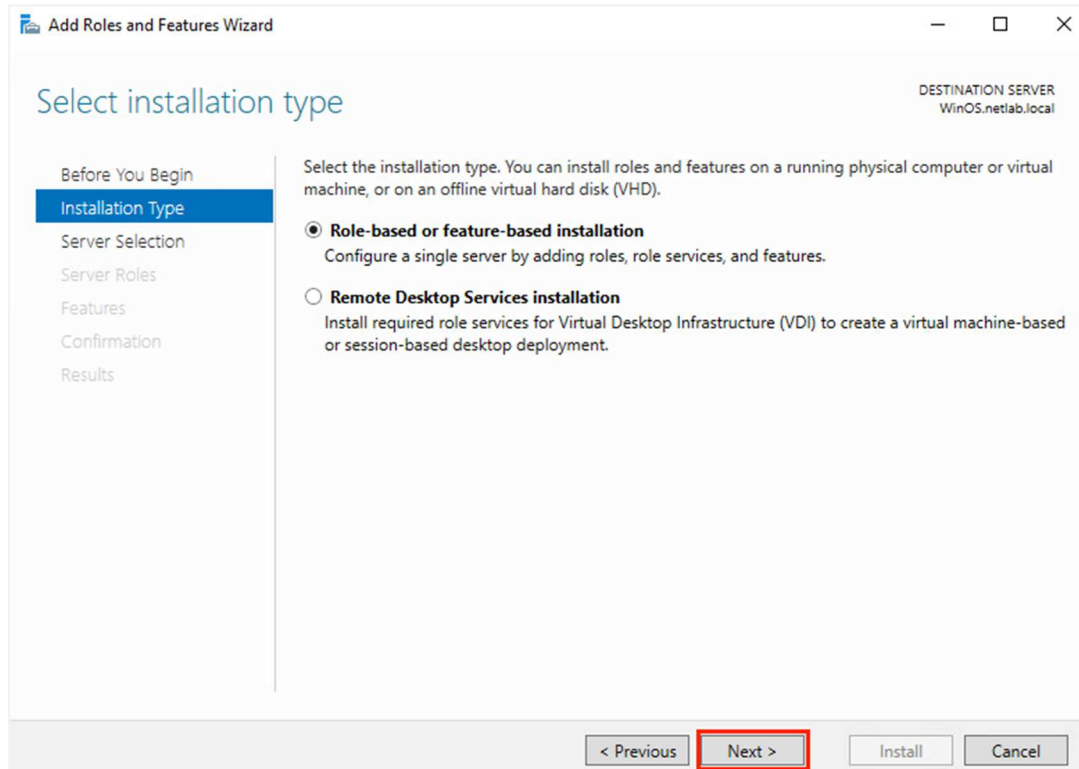
12. For the last step in the wizard, click **Finish**. Notice a new useable partition is available. Close the *Disk Management* window.



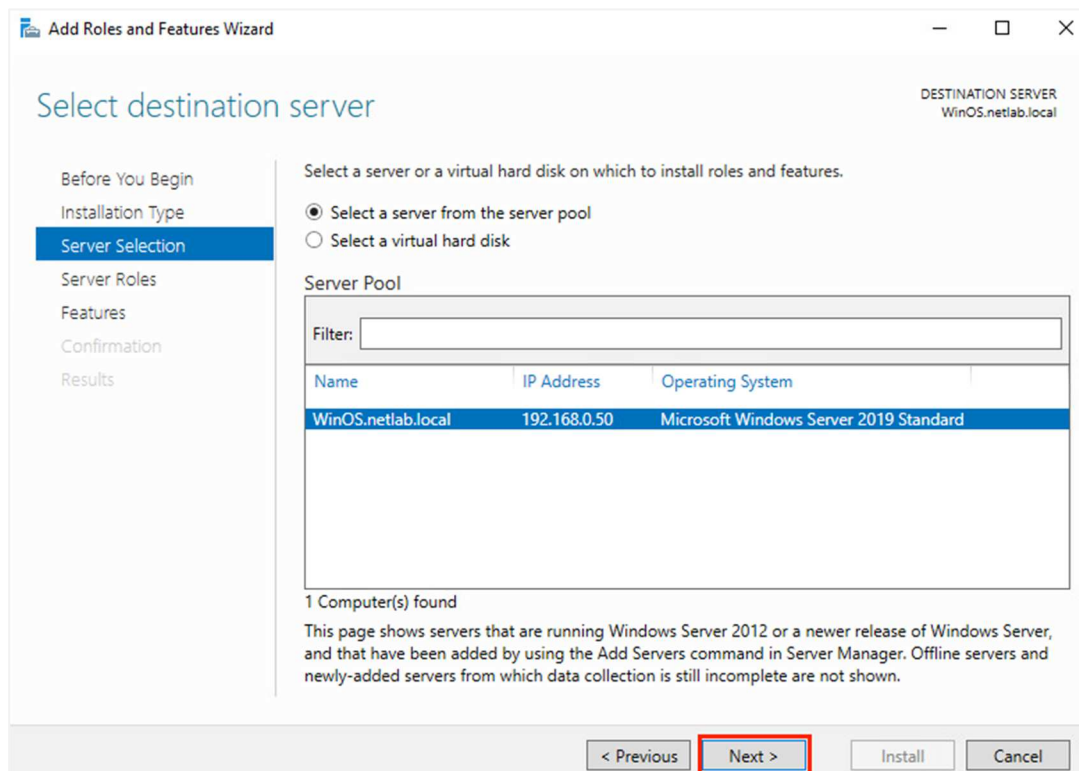
13. Click the **Server Manager** icon to launch it. Click **Add roles and features** option.



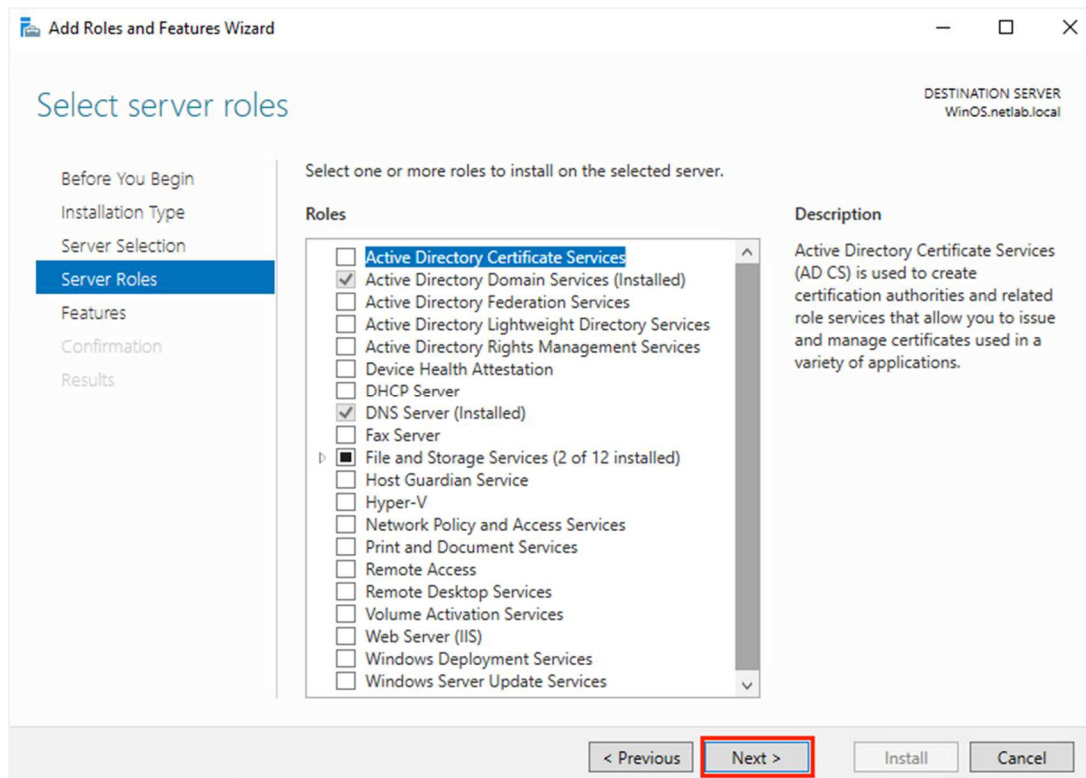
14. In the *Add Roles and Features Wizard* window, in the *Select installation type* step, click the **Next** button.



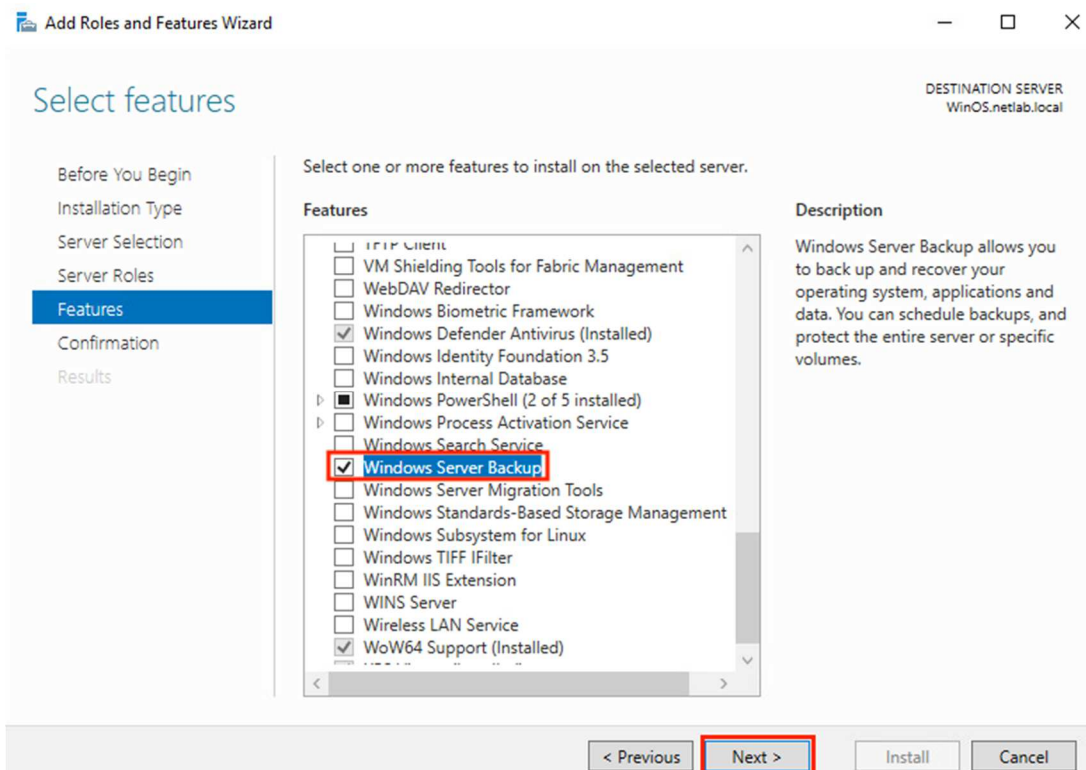
15. At the *Select destination server* step, click **Next**.



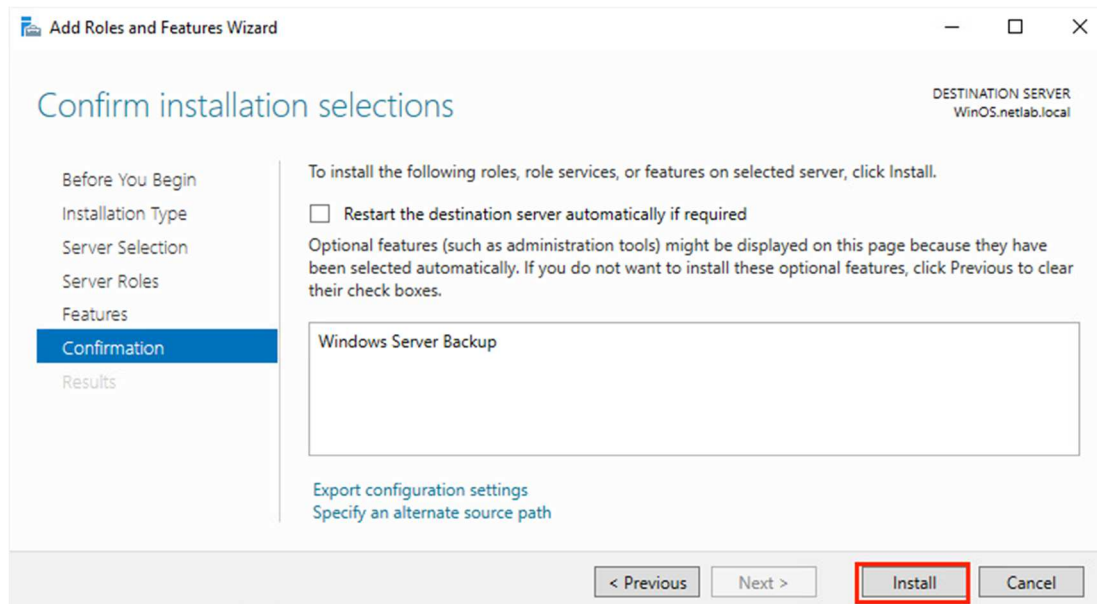
16. At the *Select server roles* step, click **Next**.



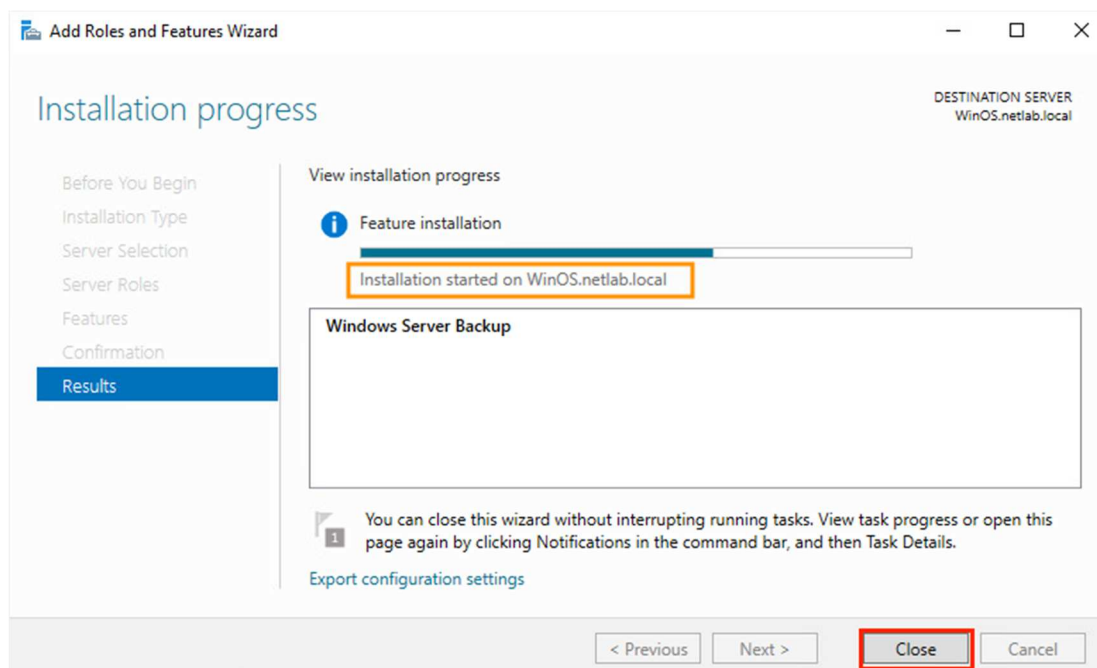
17. At the *Select features* step, scroll down in the *Features* box until you see *Windows Server Backup*; click to check the **Windows Server Backup** feature, click **Next**.



18. At the *Confirm installation selections* step, click **Install**.



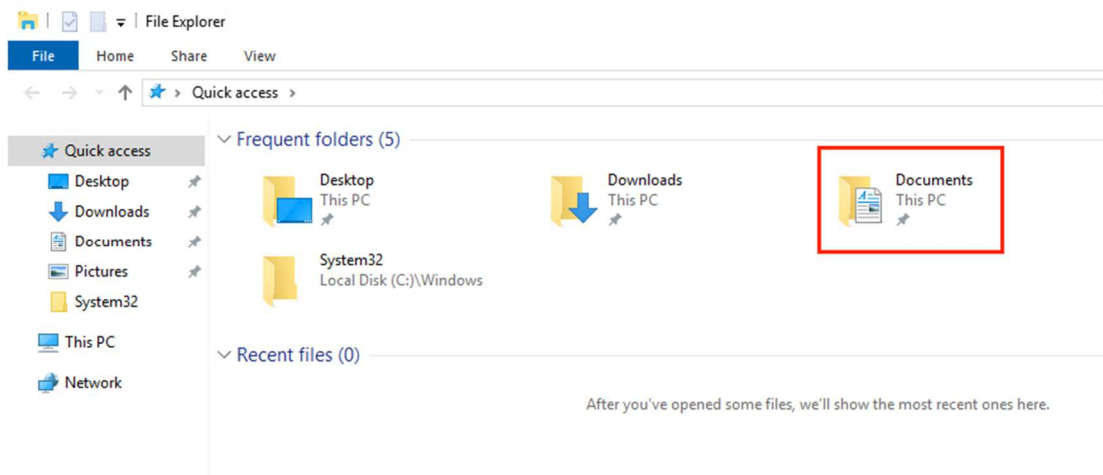
19. Wait until the installation finishes; click the **Close** button.



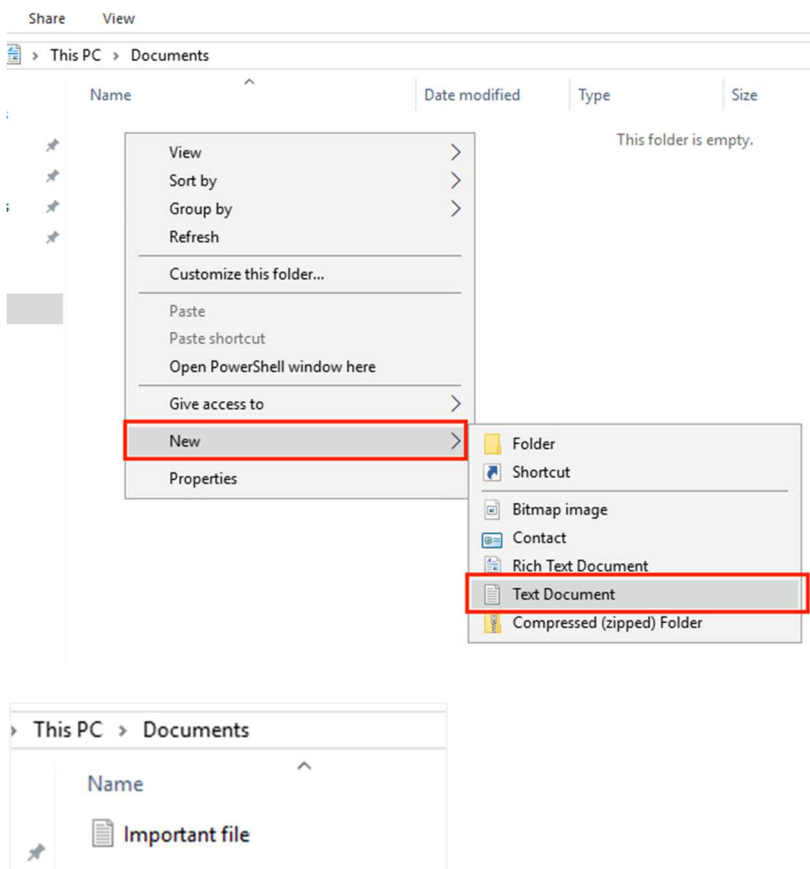
20. In the taskbar, click to open the **File Explorer**.



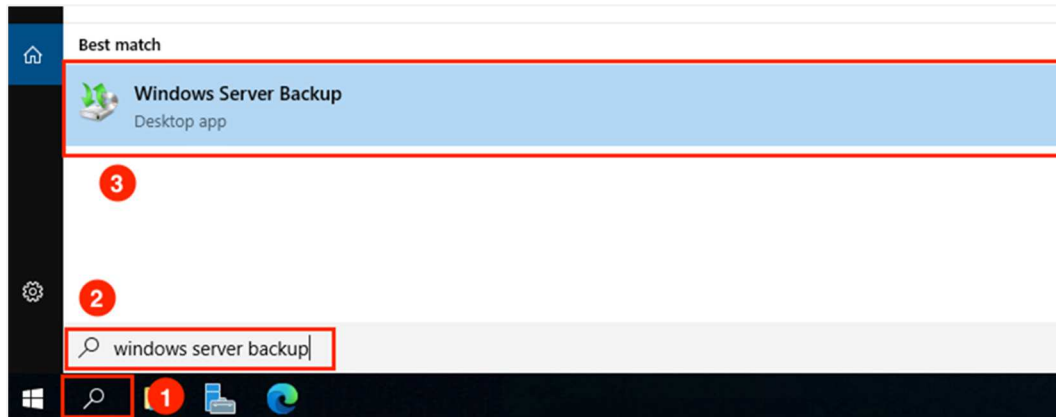
21. In the *File Explorer* window, double-click to open the **Documents** folder.



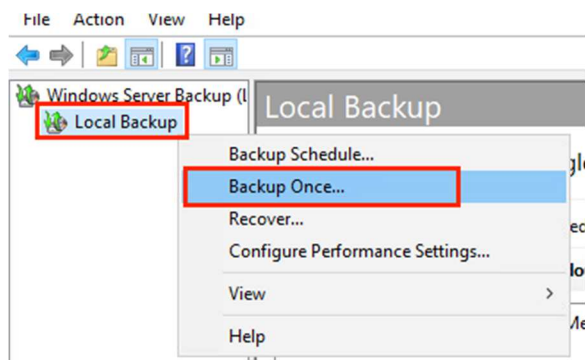
22. When you are in the *Documents* folder, right-click and select **New > Text Document**. Name it **Important file**.



23. Leave the window open, click on the **search** icon in the taskbar, and type **windows server backup**. Click the **Windows Server Backup** from the search result list.



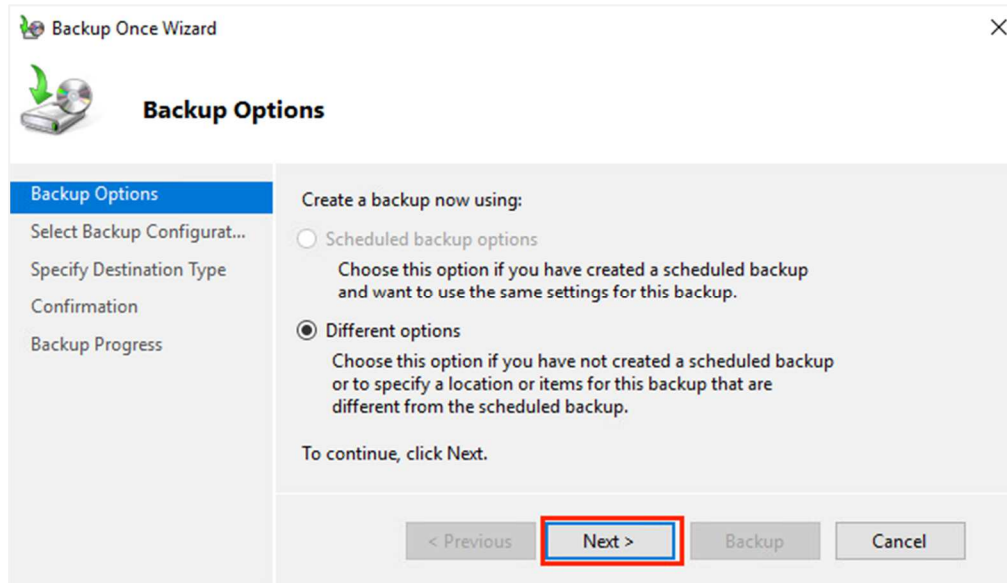
24. Notice the *wbadmin console* windows appears. In the left pane, click on **Local Backup**. Notice the pane to the right changes, right-click on **Local Backup** in the left pane and click on **Backup Once**. If you don't see the option available, wait one minute for the application to finish initializing.



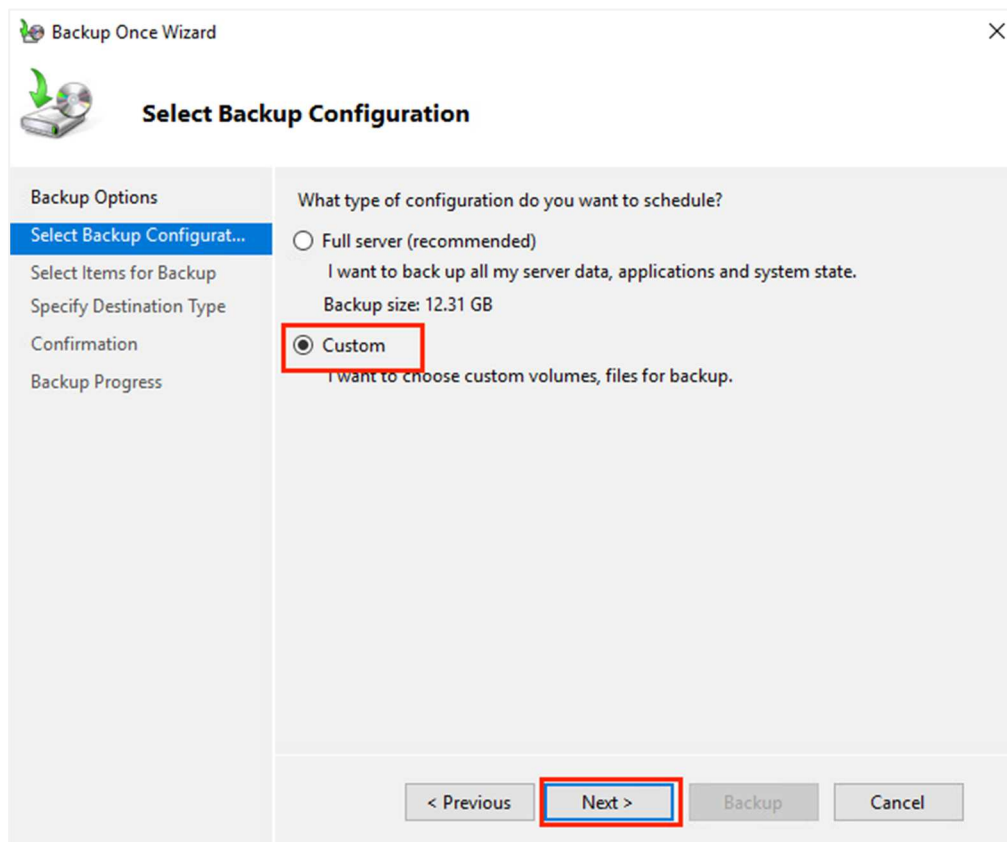
**Please
Note**

Normally you want to create a backup schedule. Because scheduled backups will happen on the hour, for time purposes, we will select the **Backup Once** option.

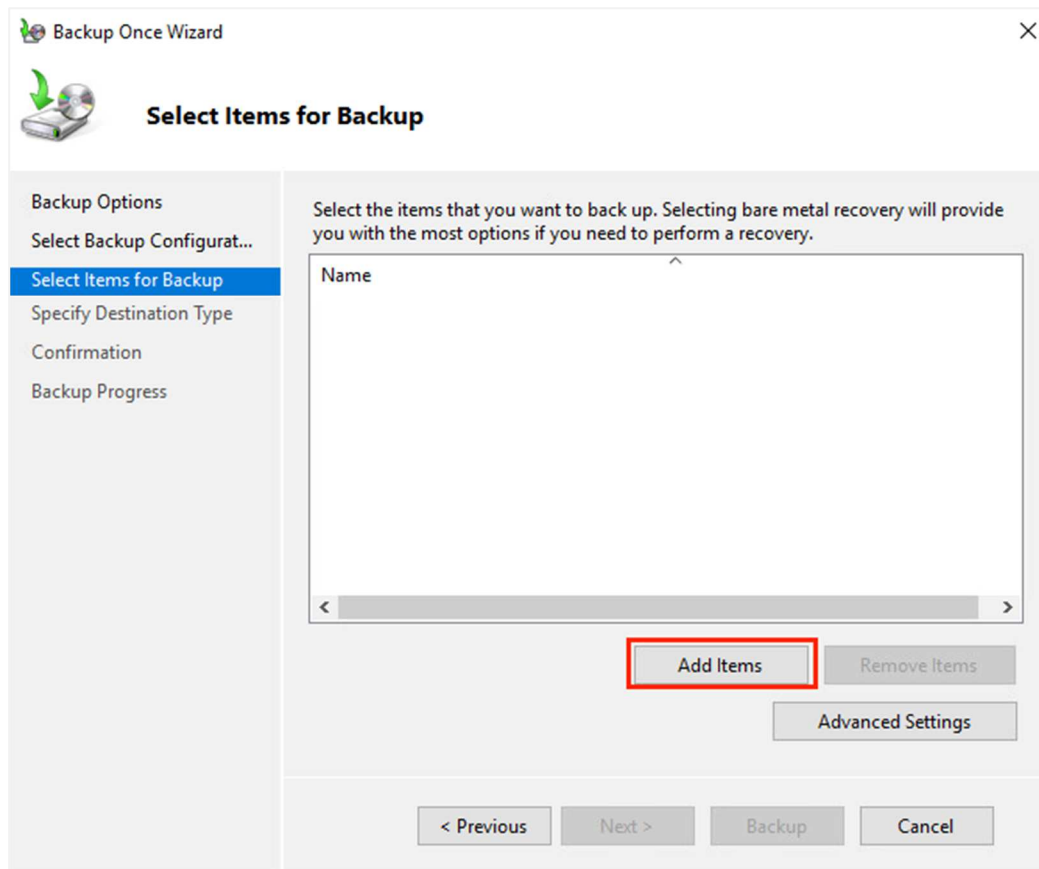
25. The *Backup Once Wizard* appears. On the *Backup Options* step, leave the default setting and click **Next**.



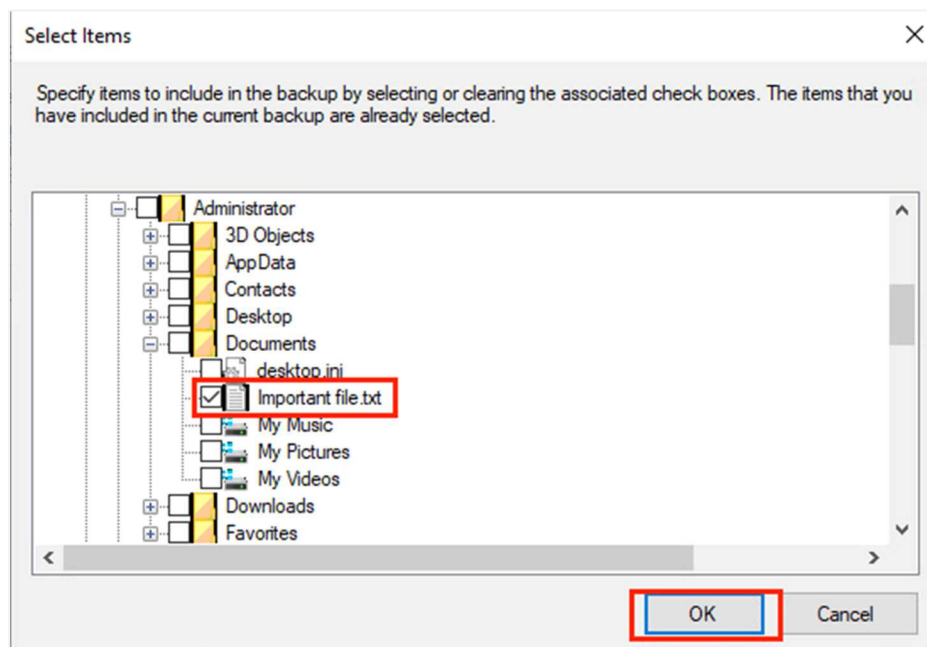
26. On the *Select Backup Configuration* step, select the radio button for **Custom** and click **Next**.



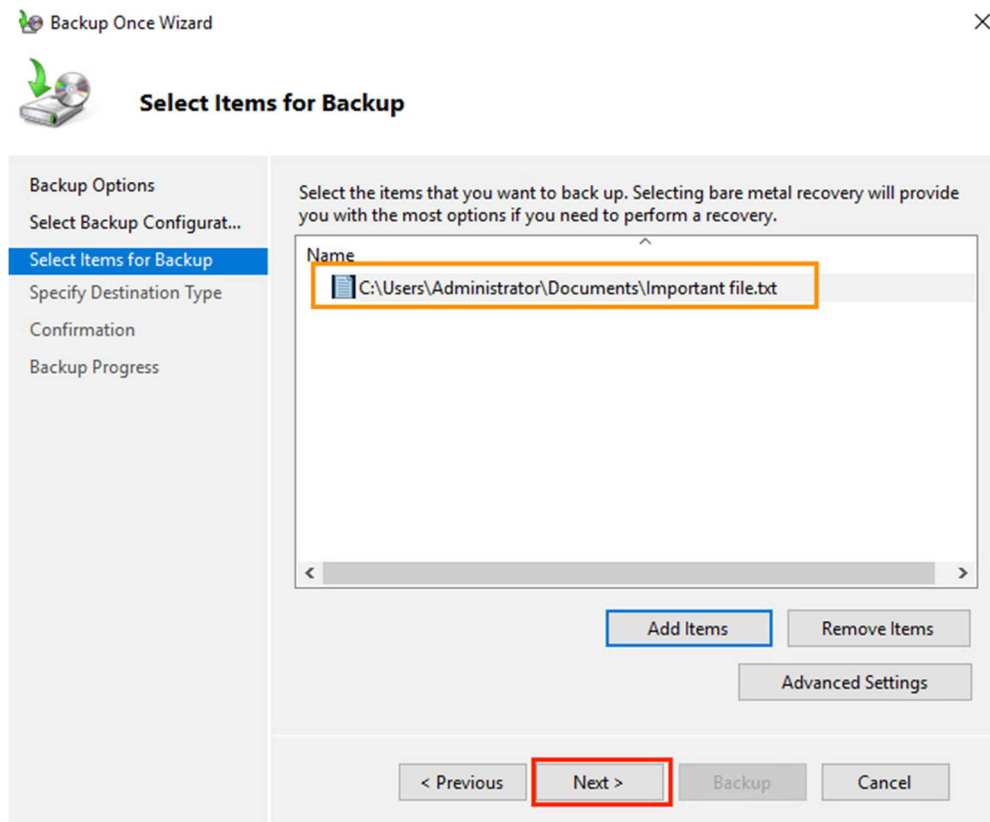
27. On the *Select Items for Backup* step, click on the **Add Items** button.



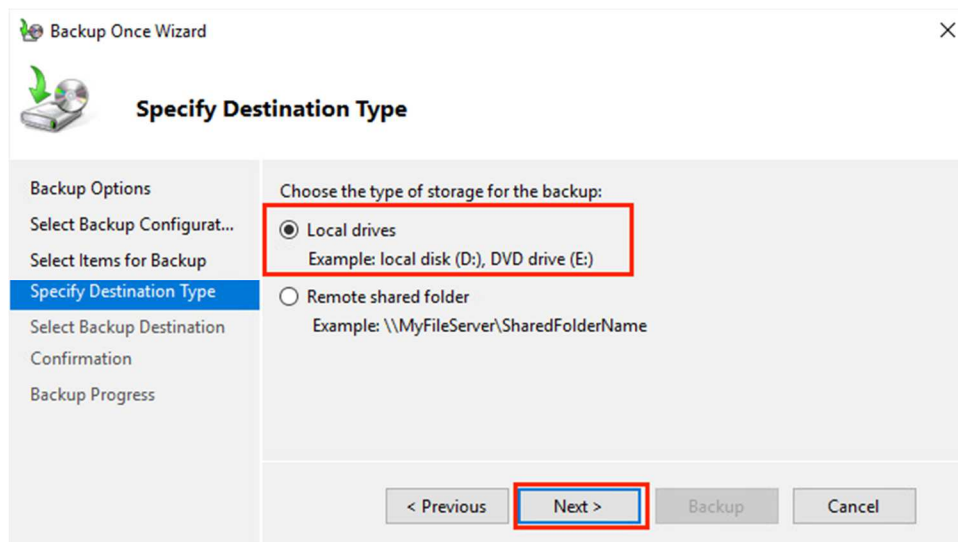
28. In the *Select Items* window, expand **Local disk (C:) > Users > Administrator > Documents**. Check the checkbox for **Important file.txt** and click **OK**.



29. Back on the *Backup Once Wizard* window, ensure that *Important file.txt* is listed and click **Next**.



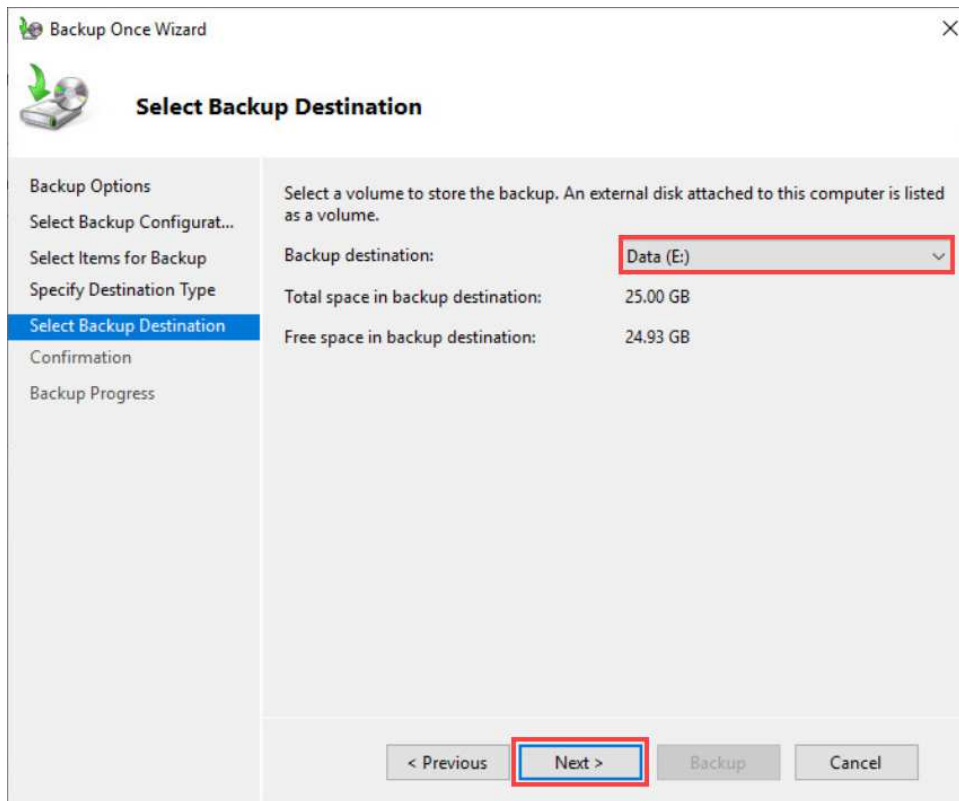
30. On the *Specify Destination Type* step, select the radio button for **Local drives** and click **Next**.



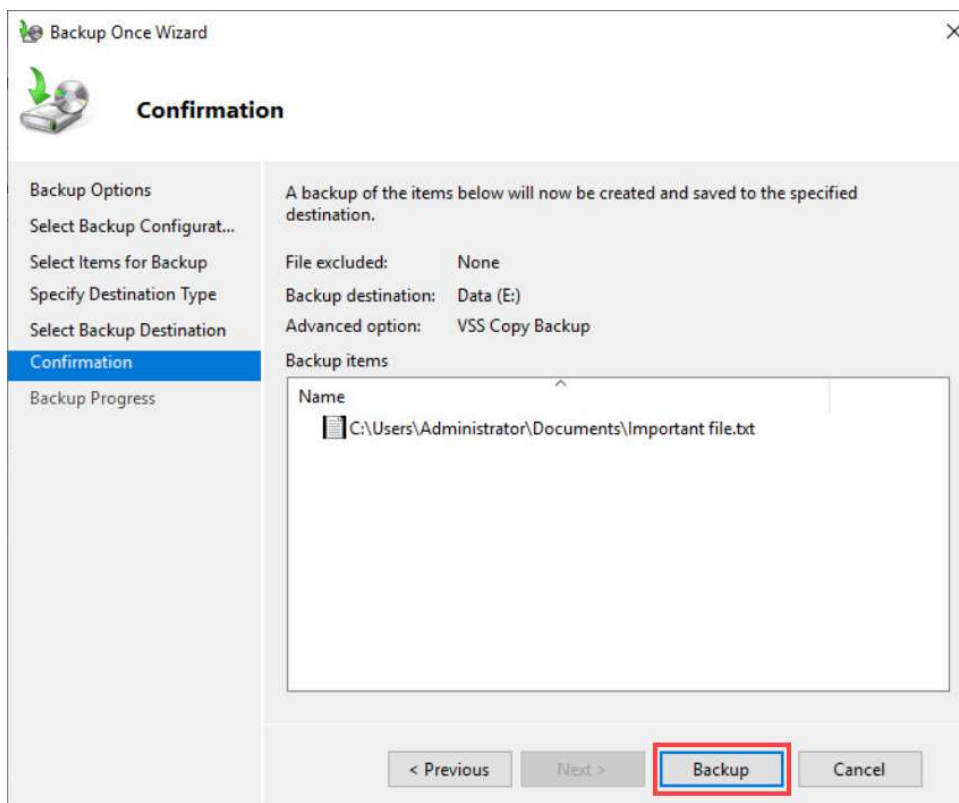
Please Note

Unless you are limited to access the local drive, you almost never want to backup to local drives. For this lab example, we are going to back up on the local drive.

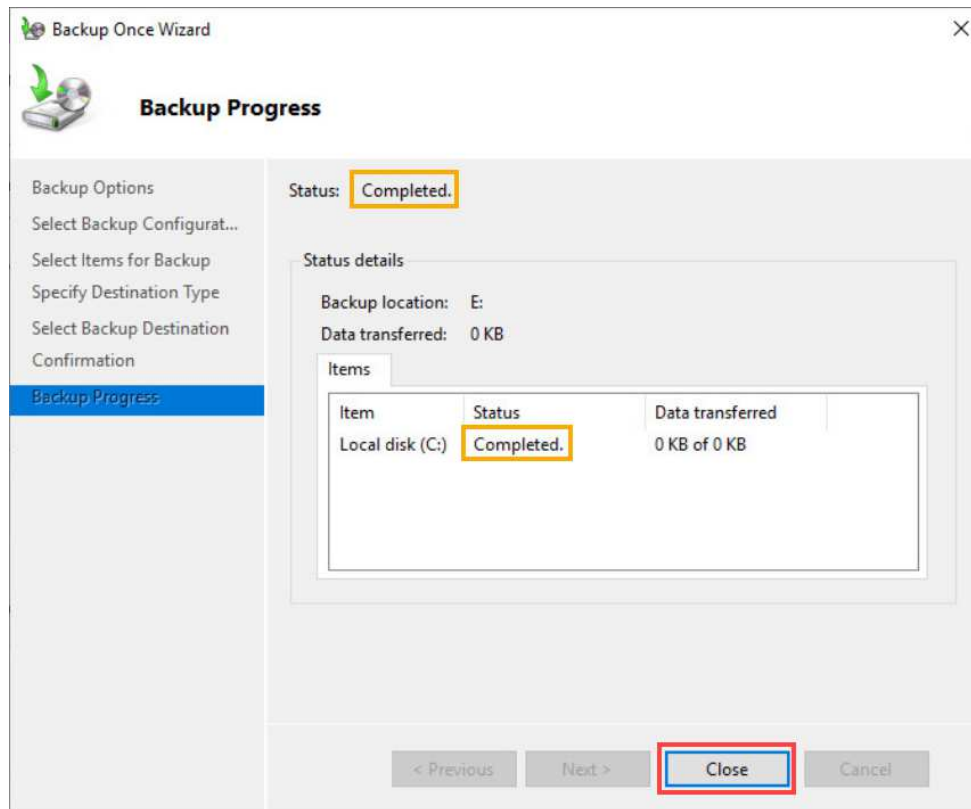
31. On the *Select Backup Destination* step, change the *Backup destination* to **Data (E:)** and click **Next**.



32. On the *Confirmation* step, review the confirmation information and click **Backup**.



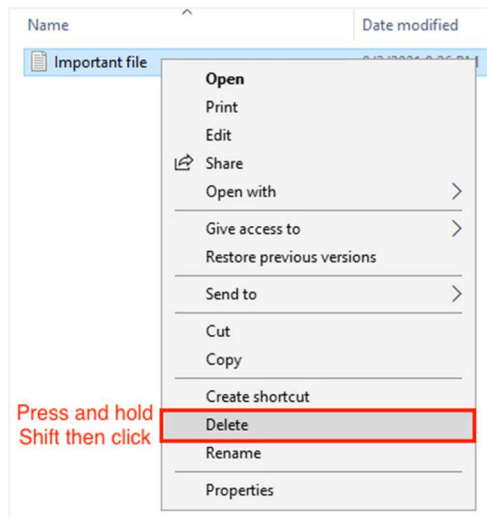
33. The backup will take 1-2 minutes to finish. When the status shows as *Completed*, click **Close**.



34. You will be brought back to the *wbadmin* window. Click the **button** to minimize it and continue to the next task.

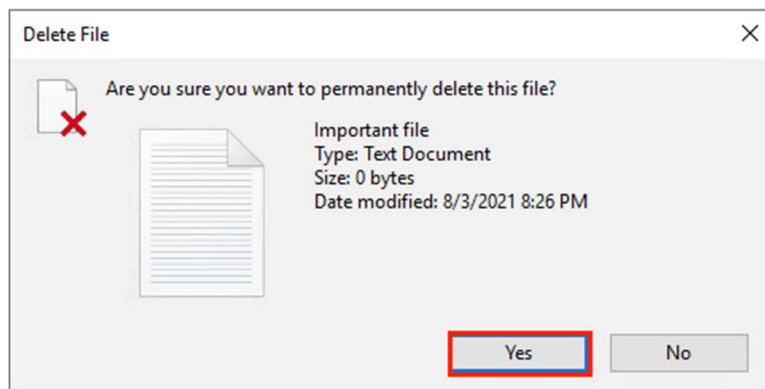
2 Recover the Lost File from a Backup

1. Switch back to the **File Explorer** with the *Documents* folder opened. Right-click on the **Important file**, press and hold the **Shift** key on the keyboard, and select **Delete** in the menu.

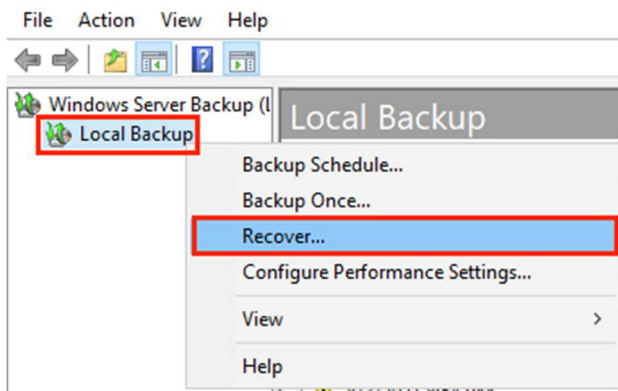


The Shift key will skip the Recycle Bin and directly delete the file.

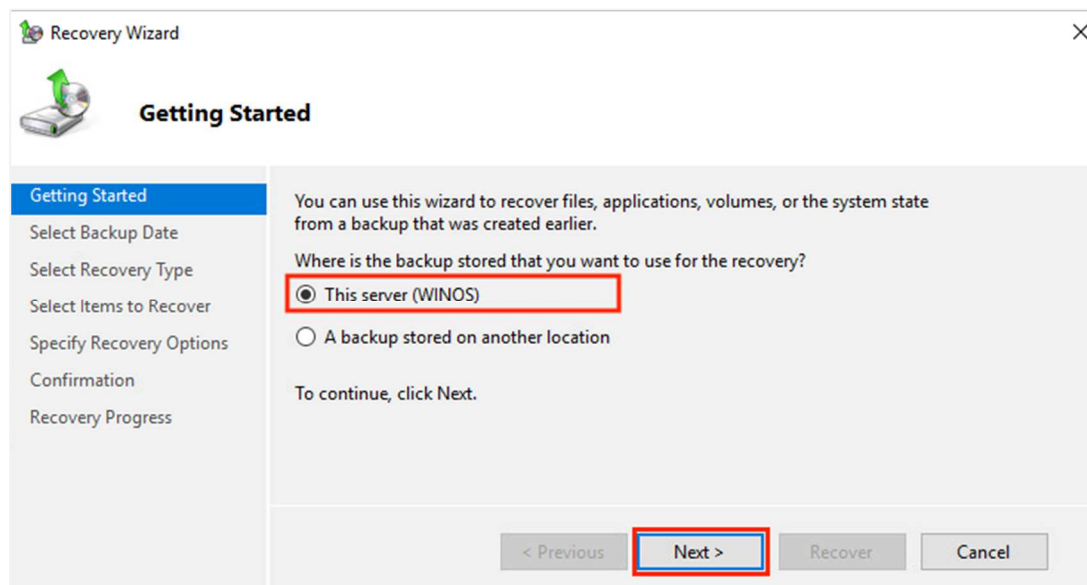
2. A pop-up window will show, click **Yes**.



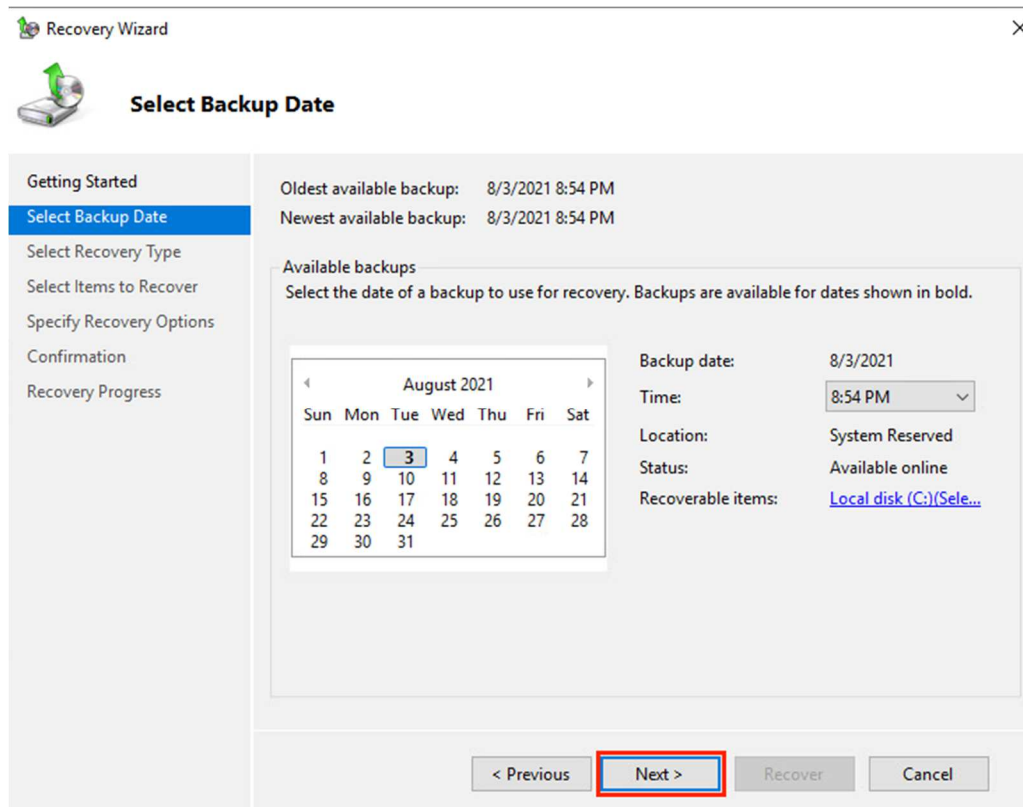
3. Switch back to the *Windows Server Backup* window, right-click on the **Local Backup**, then select **Recover**.



4. On the *Getting Started* step, make sure the radio button **This server (WINOS)** is selected.

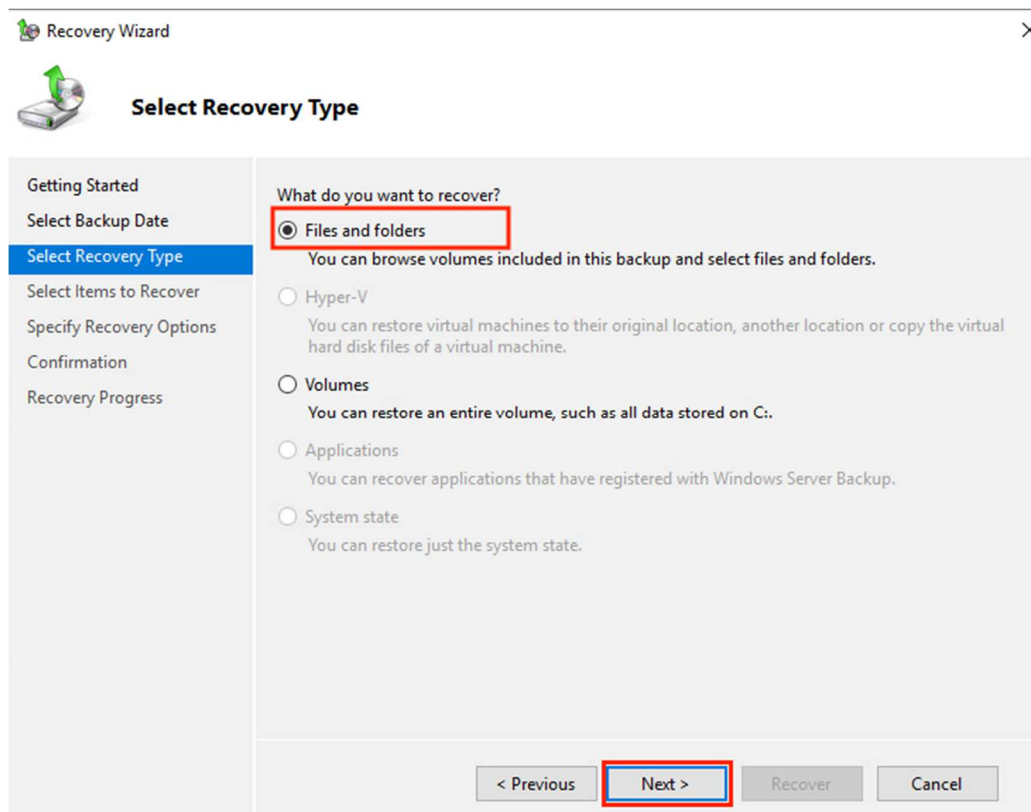


5. On the *Select Backup Date* step, click **Next**.



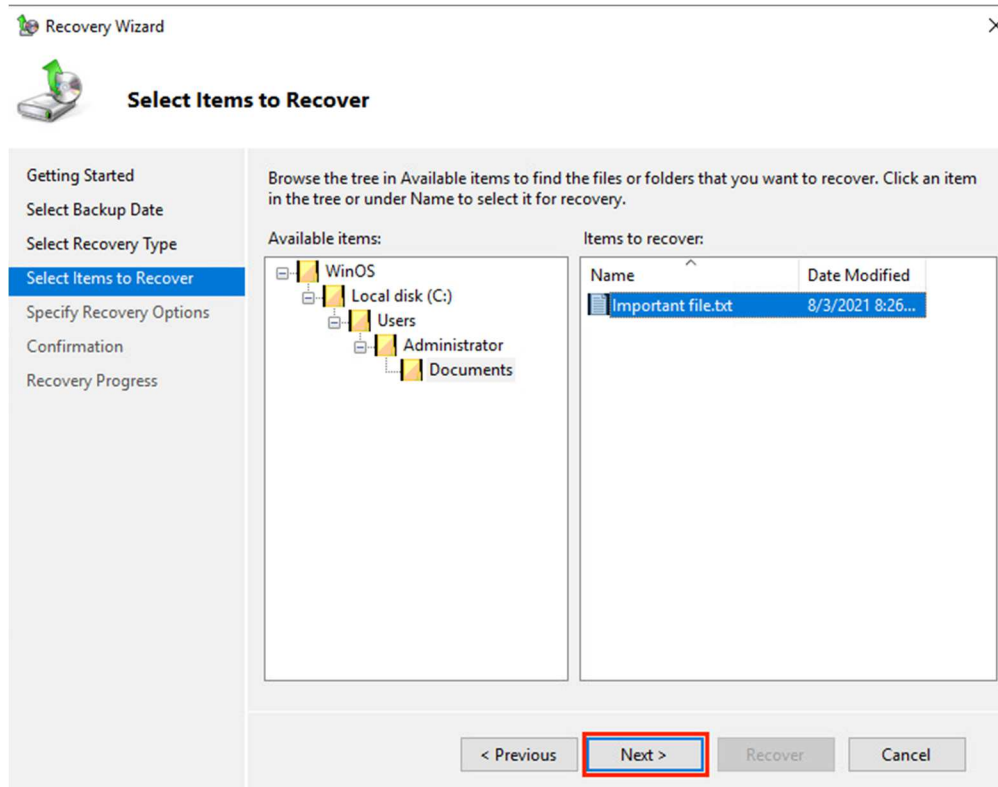
The screenshot shows the 'Recovery Wizard' window at the 'Select Backup Date' step. The left sidebar lists the steps: Getting Started, Select Backup Date (highlighted), Select Recovery Type, Select Items to Recover, Specify Recovery Options, Confirmation, and Recovery Progress. The main area displays backup information: 'Oldest available backup: 8/3/2021 8:54 PM' and 'Newest available backup: 8/3/2021 8:54 PM'. Below this is a calendar for August 2021 with the 3rd highlighted. To the right of the calendar, the 'Backup date' is set to 8/3/2021, 'Time' to 8:54 PM, 'Location' to System Reserved, 'Status' to Available online, and 'Recoverable items' to Local disk (C:)(Sele...'. At the bottom, there are buttons for '< Previous', 'Next >' (highlighted with a red box), 'Recover', and 'Cancel'.

6. On the *Select Recovery Type* step, make sure the radio button **Files and folders** is selected.

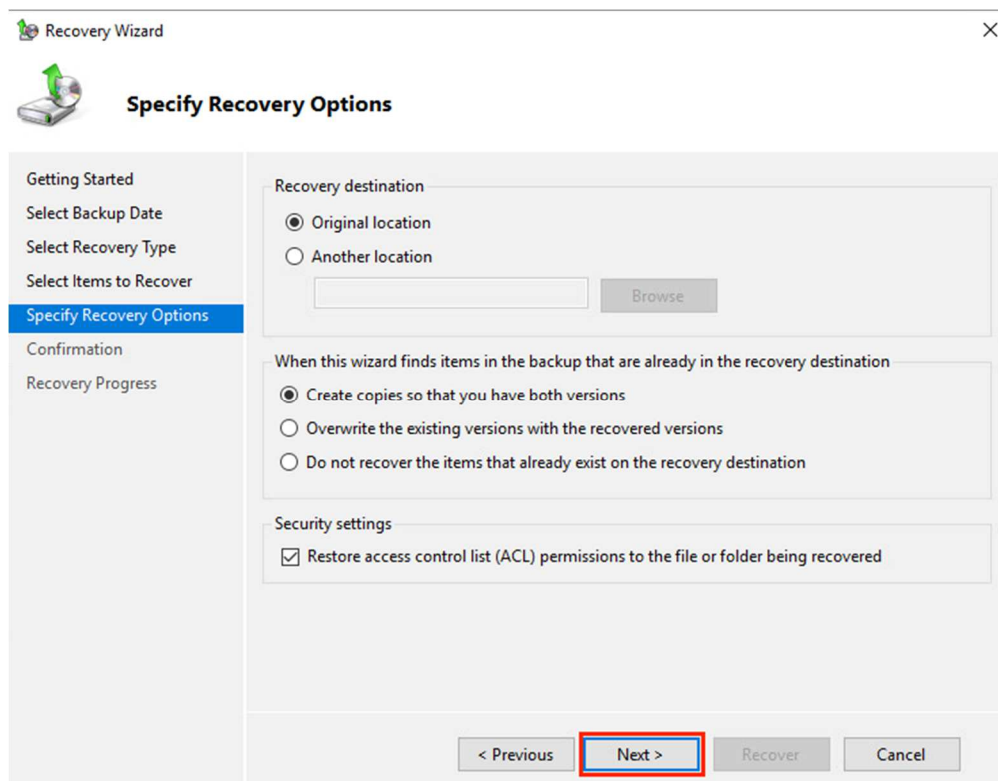


The screenshot shows the 'Recovery Wizard' window at the 'Select Recovery Type' step. The left sidebar lists the steps: Getting Started, Select Backup Date, Select Recovery Type (highlighted), Select Items to Recover, Specify Recovery Options, Confirmation, and Recovery Progress. The main area is titled 'What do you want to recover?' and lists four options: 'Files and folders' (selected with a radio button and highlighted with a red box), 'Hyper-V', 'Volumes', and 'System state'. Each option has a brief description. At the bottom, there are buttons for '< Previous', 'Next >' (highlighted with a red box), 'Recover', and 'Cancel'.

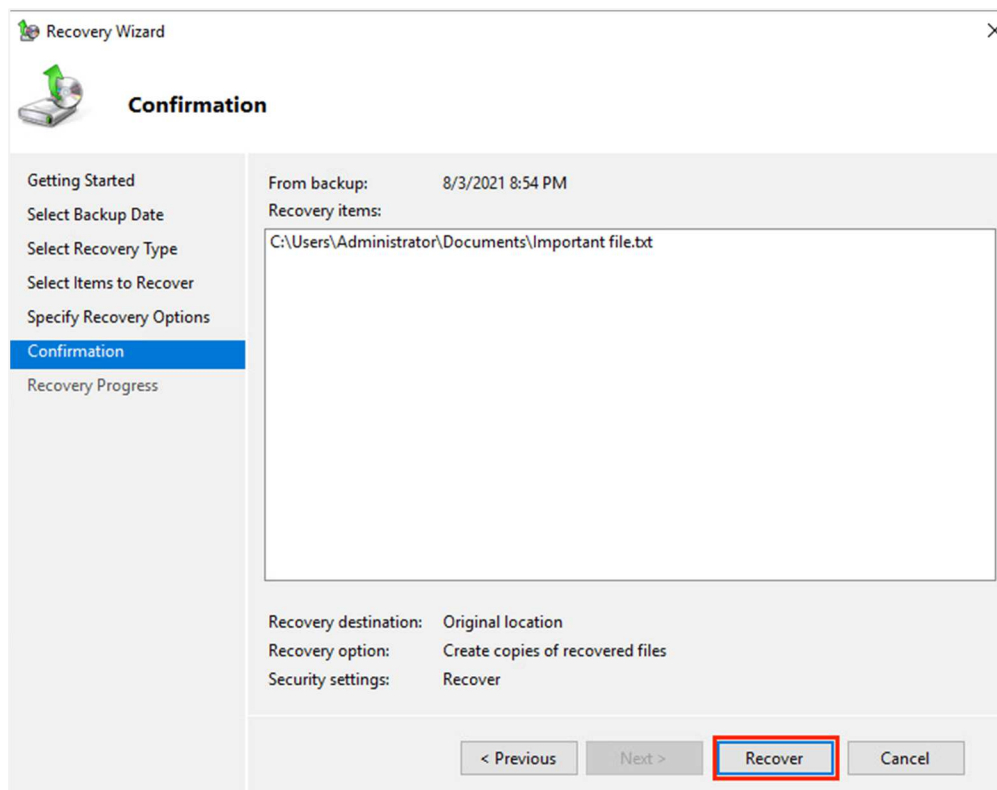
7. On the *Select Items to Recover* step, expand every folder in the **Available items** box and then select the Documents folder. Make sure the *Items to recover* pane has **Important file.txt** in it and select the file. Click **Next**.



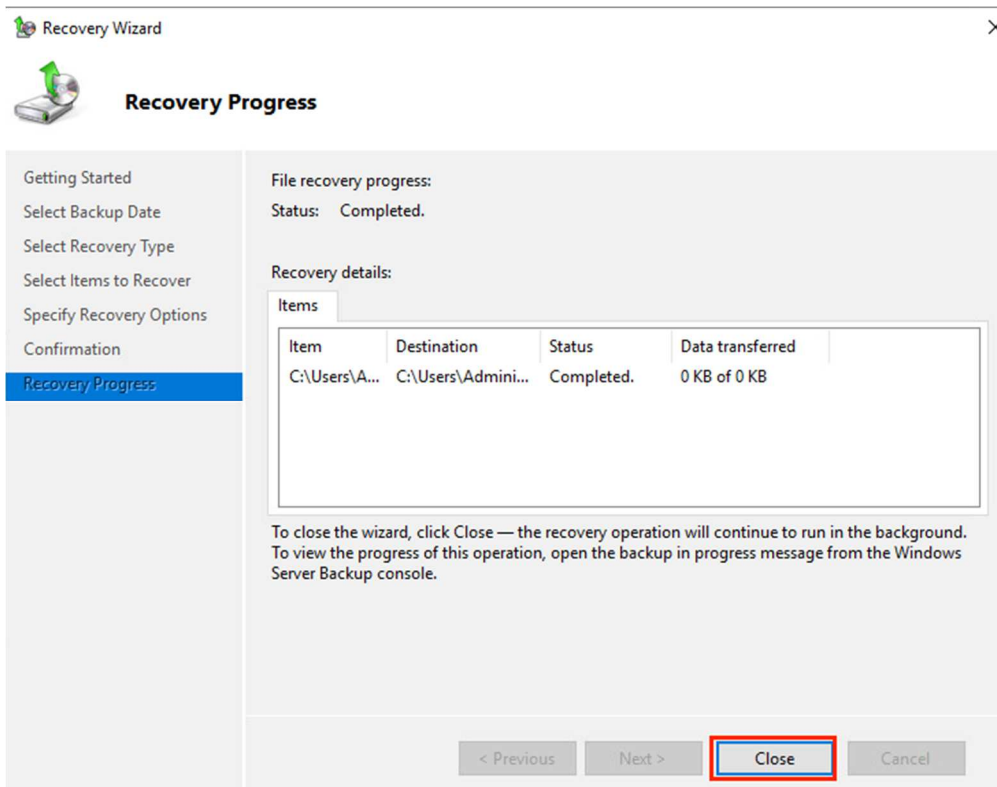
8. On the *Specify Recovery Options* step, leave the default setting and click **Next**.



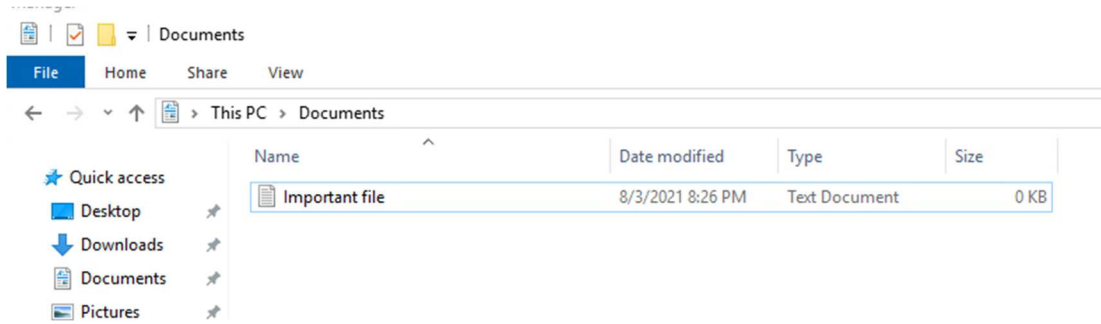
9. On the *Confirmation* step, click **Recover**.



10. When the *Recovery Progress* finishes, click **Close**. Then, close the *Windows Server Backup* window.



11. Switch back to the **Documents** window and notice that the deleted file is back.



12. The lab is now complete; you may end your reservation.