Disk Partitioning Methods and File Systems

- **Introduction**
- **Lab Topology**
- **Exercise 1 - Perform Disk Partitioning**
- **Exercise 2 - Work with Different File Systems**
- **Review**

Introduction

Disk partitioning
Files Systems
Partitions
A+

Welcome to the **Disk Partitioning Methods and File Systems** Practice Lab. In this module you will be provided with the instructions and devices needed to develop your hands-on skills.

Learning Outcomes

In this module, you will complete the following exercises:

- Exercise 1 - Perform Disk Partitioning
- Exercise 2 - Work with Different File Systems

After completing this lab, you will be able to:

- Create a Dynamic Partition
- Create a Primary Partition
- Create an Extended and Logical Partition
- Convert to MBR or GPT Disk
- Create FAT32 and NTFS File Systems

- Configure the Network File System (NFS)
- View the Swap Partition on CentOS
- View the Swap File in Windows 10

Exam Objectives

The following exam objectives are covered in this lab:

- **220-1002:** 1.4 - Partitioning and file system

> *Note: Our main focus is to cover the practical, hands-on aspects of the exam objectives. We recommend referring to course material or a search engine to research theoretical topics in more detail.*

Lab Duration

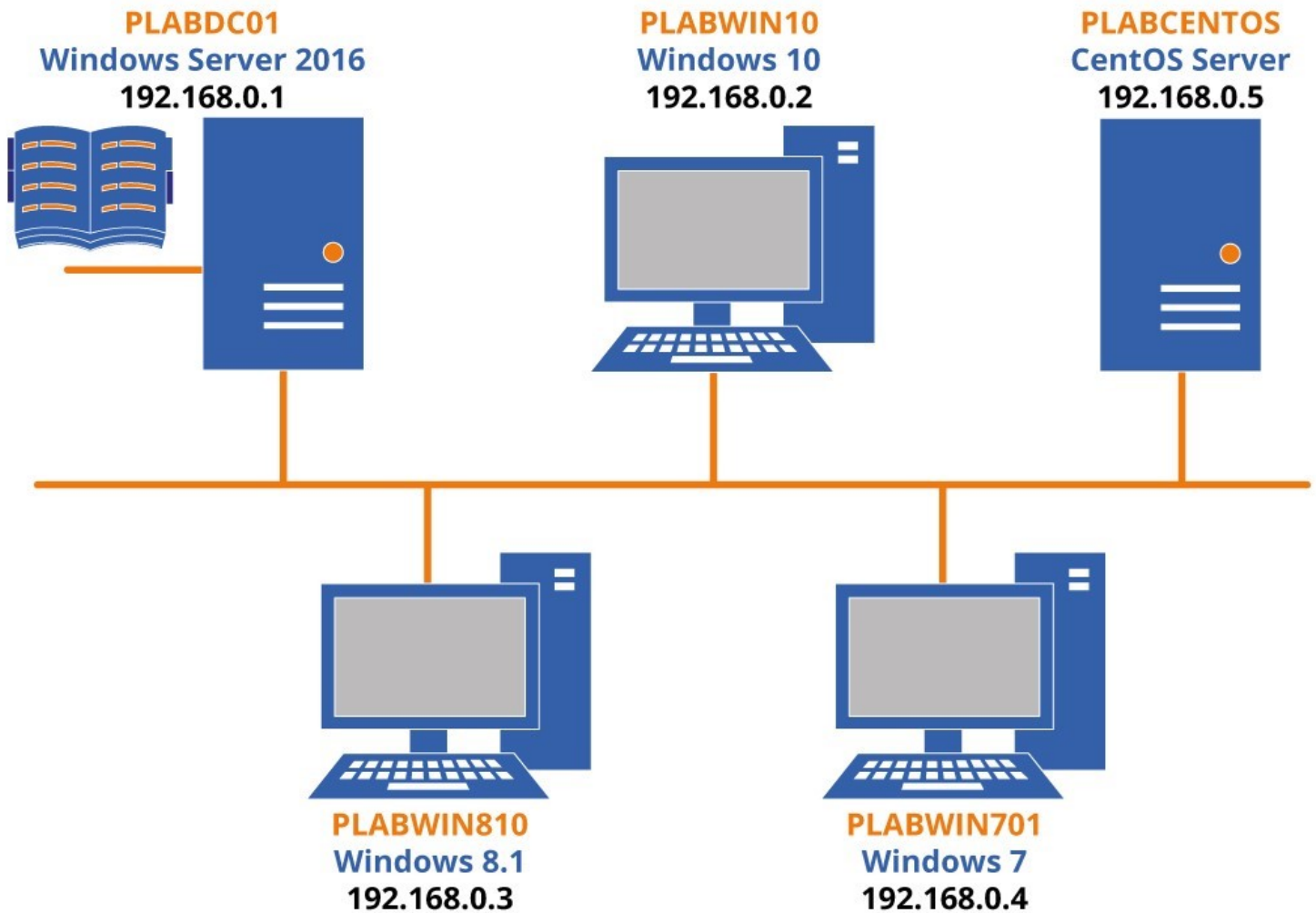It will take approximately **45 minutes** to complete this lab.

Help and Support

For more information on using Practice Labs, please see our **Help and Support** page. You can also raise a technical support ticket from this page.

> Click **Next** to view the Lab topology used in this module.

Lab Topology

During your session, you will have access to the following lab configuration.

Depending on the exercises, you may or may not use all of the devices, but they are shown here in the layout to get an overall understanding of the topology of the lab.

- **PLABDC01 -** (Windows Server 2016 - Domain Controller)
- **PLABWIN10 -** (Windows 10 - Domain Member)
- **PLABCENTOS -** (CentOS Server)
- **PLABWIN810 -** (Windows 8.1 - Domain Member)
- **PLABWIN701 -** (Windows 7 - Domain Member)

Click **Next** to proceed to the first exercise.

Exercise 1 - Perform Disk Partitioning

Disk partitioning is performed to create logically separate compartments inside the hard drive.

There are three types of disk partitions: Primary, logical and extended. A hard drive can have a maximum of four primary partitions or three primary and one extended partition. Logical partitions are created on the extended partition. The primary partition with the ACTIVE status is used for booting the system with an operating system. You cannot boot a system from a logical partition as it cannot be made ACTIVE.

Disk partitions are useful from a data security point of view. Formatting and erasing data from one partition does not affect the data stored in another partition. If the hard drive with multiple partitions fails, the data on all partitions is impacted.

In this exercise, you will learn about disk partitioning.

Learning Outcomes

After completing this exercise, you will be able to:

- Create a Dynamic Partition
- Create a Primary Partition
- Create an Extended and Logical Partition
- Convert to MBR or GPT Disk

Your Devices

You will be using the following device in this lab. Please power on the device now.

- **PLABWIN10 -** (Windows 10 - Domain Member)

PLABWIN10
Windows 10
192.168.0.2

Task 1 - Create a Dynamic Partition

A basic disk works with partitions. Each partition is independent and cannot share or span data over other partitions. A dynamic disk can use dynamic volumes that can span across multiple hard drives in a single system.

This is possible because the dynamic disk partition does not create a partition table like the regular partition method. Dynamic partitioning uses a method called logical disk manager (LDM). LDM keeps track of the sectors of the dynamic partition. A basic disk can be converted to dynamic disk and vice versa.

In this task you will create a dynamic partition.

Step 1

Ensure that the required devices are powered on and connect to **PLABWIN10**.

In the **Type here to search** text box, type the following:

```
Disk management
```

Select the **Create and format hard disk partitions** from the search results.
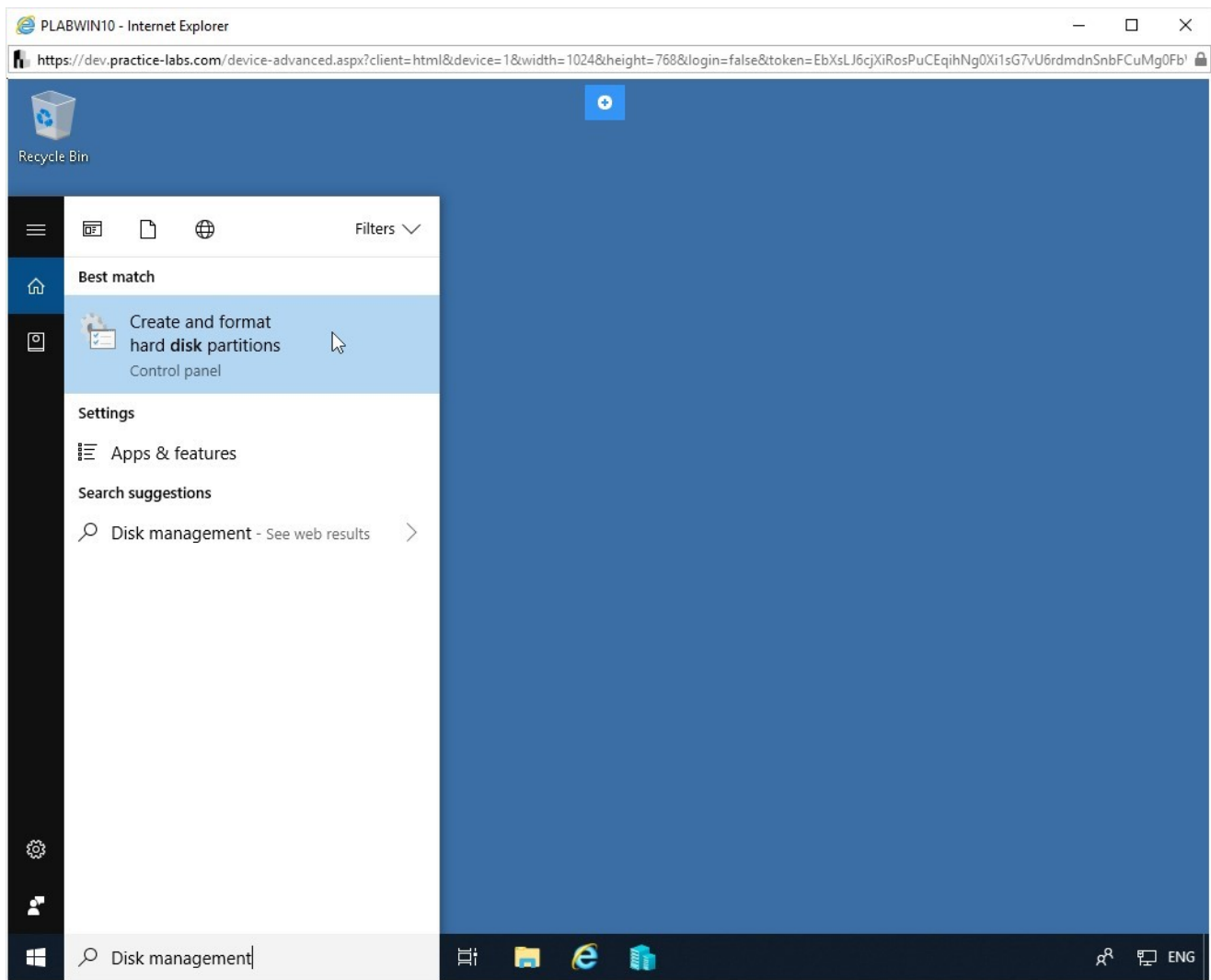
Figure 1.1 Screenshot of PLABWIN10: Selecting Create and format hard disk partitions from the search results.

Step 2

The **Disk Management** window is displayed.

Right-click **Disk 1** and select **Convert to Dynamic Disk** from the context menu.

> **Alert:** Ensure you click in the Grey area on the left side. Clicking on the drive label box will not provide this option in the context menu.
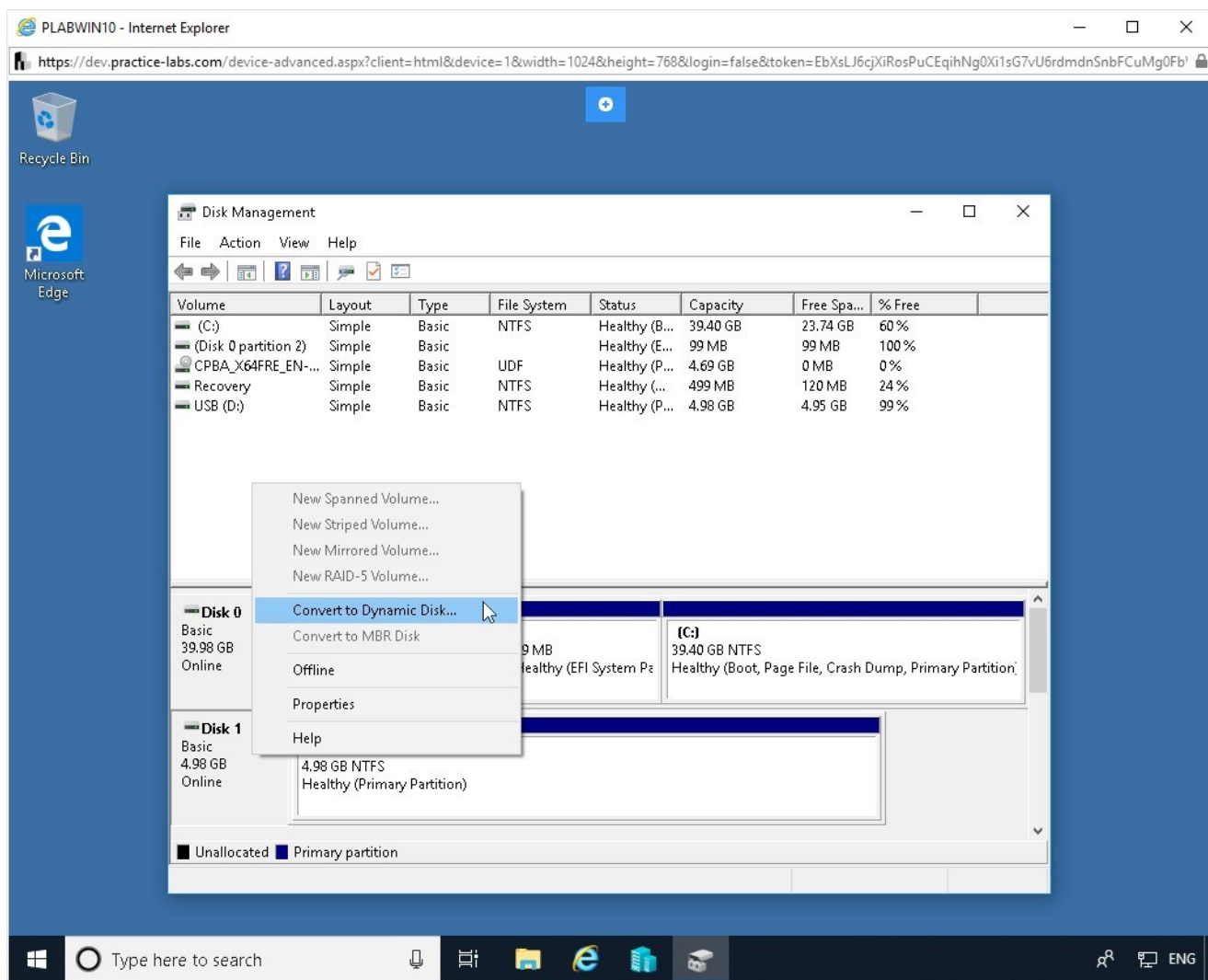
Figure 1.2 Screenshot of PLABWIN10: Right-clicking Disk 1 and selecting Convert to Dynamic Disk from the context menu.

Step 3

The **Convert to Dynamic Disk** dialog box is displayed.

Ensure that **Disk 1** is selected. Click **OK**.
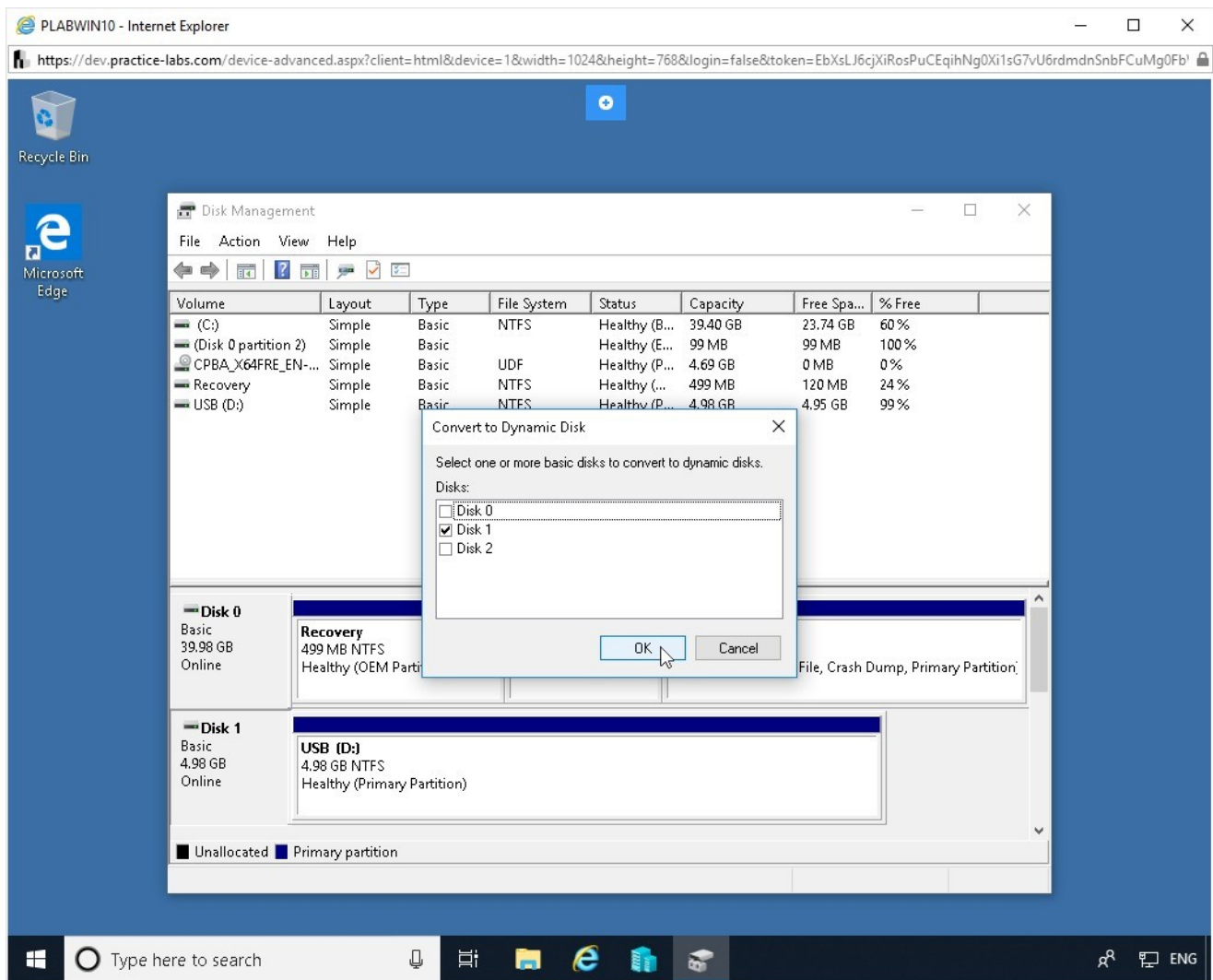
Figure 1.3 Screenshot of PLABWIN10: Selecting e disk drive to convert to a dynamic disk in the Disk Management.

Step 4

The **Disk to Convert** dialog box is displayed.

Click **Convert**.
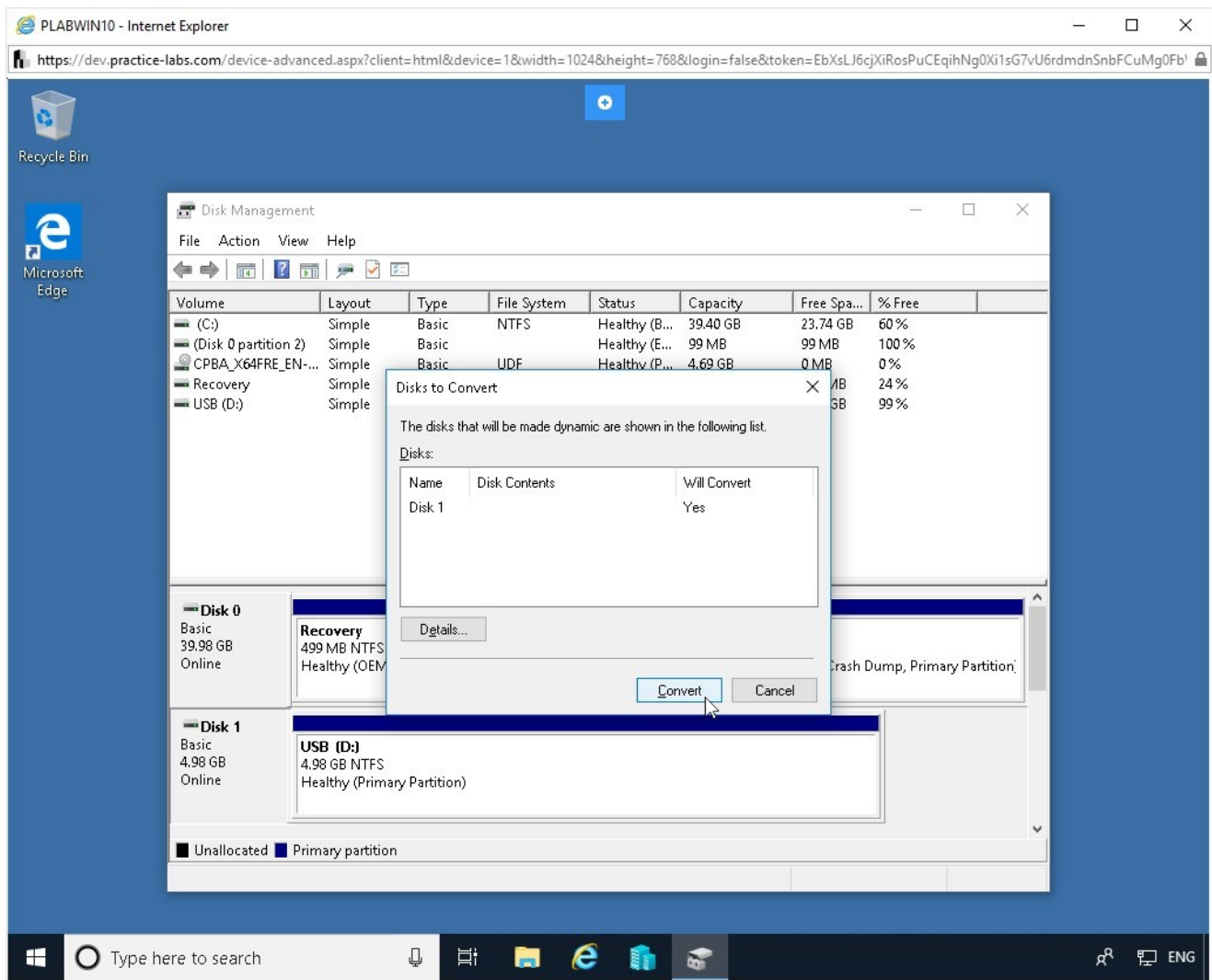
Figure 1.4 Screenshot of PLABWIN10: Clicking the Convert button in the Disks to Convert dialog box.

Step 5

Notice that the **Disk 1** status is set to **Basic**.

The **Disk Management** dialog box is displayed.

Click **Yes**.
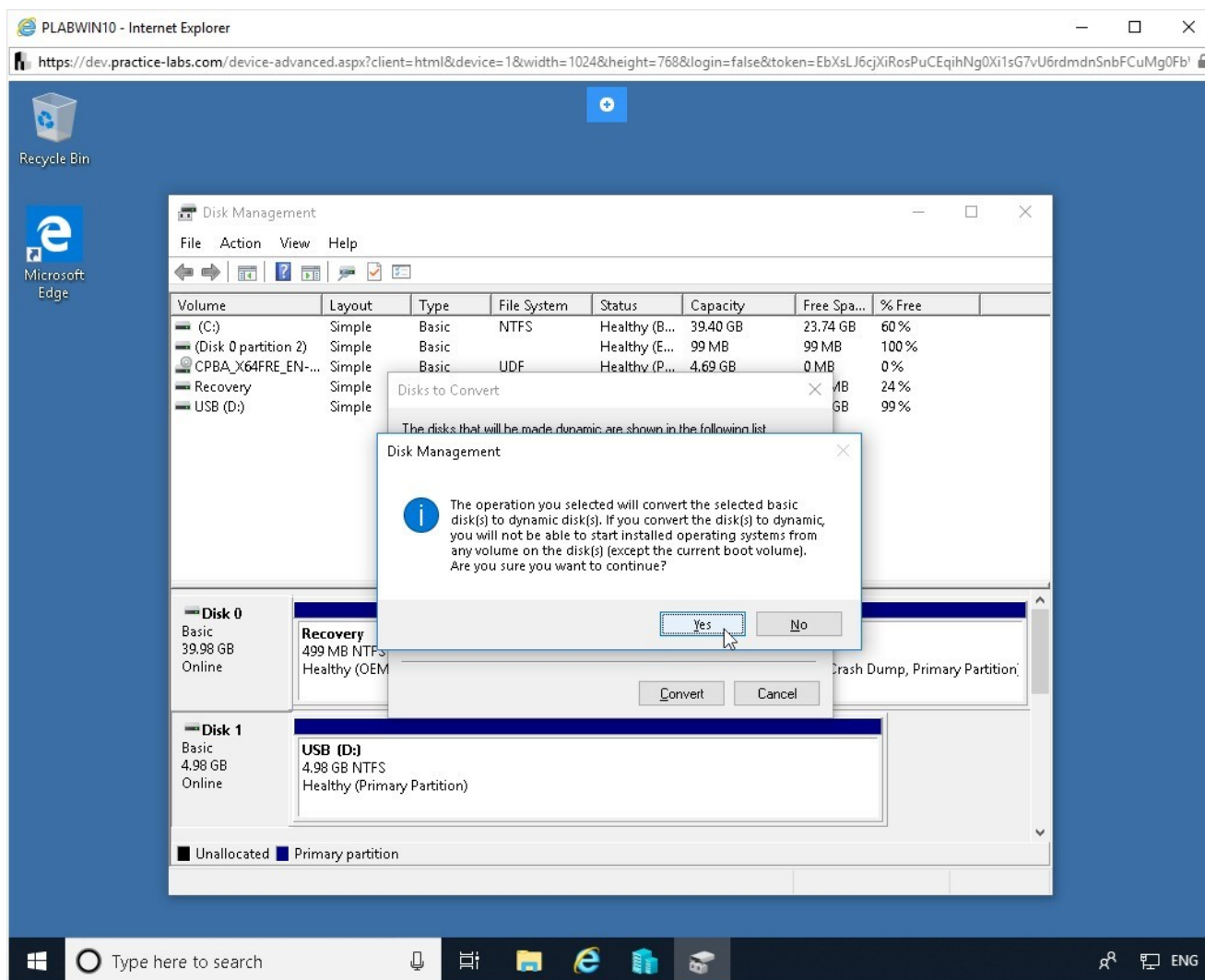
Figure 1.5 Screenshot of PLABWIN10: Showing the warning message in the Disk Management dialog box.

Step 6

You are back on the **Disk Management** window. Notice that the **Disk 1** status has now changed to **Dynamic**.

Keep the **Disk Management** window open.
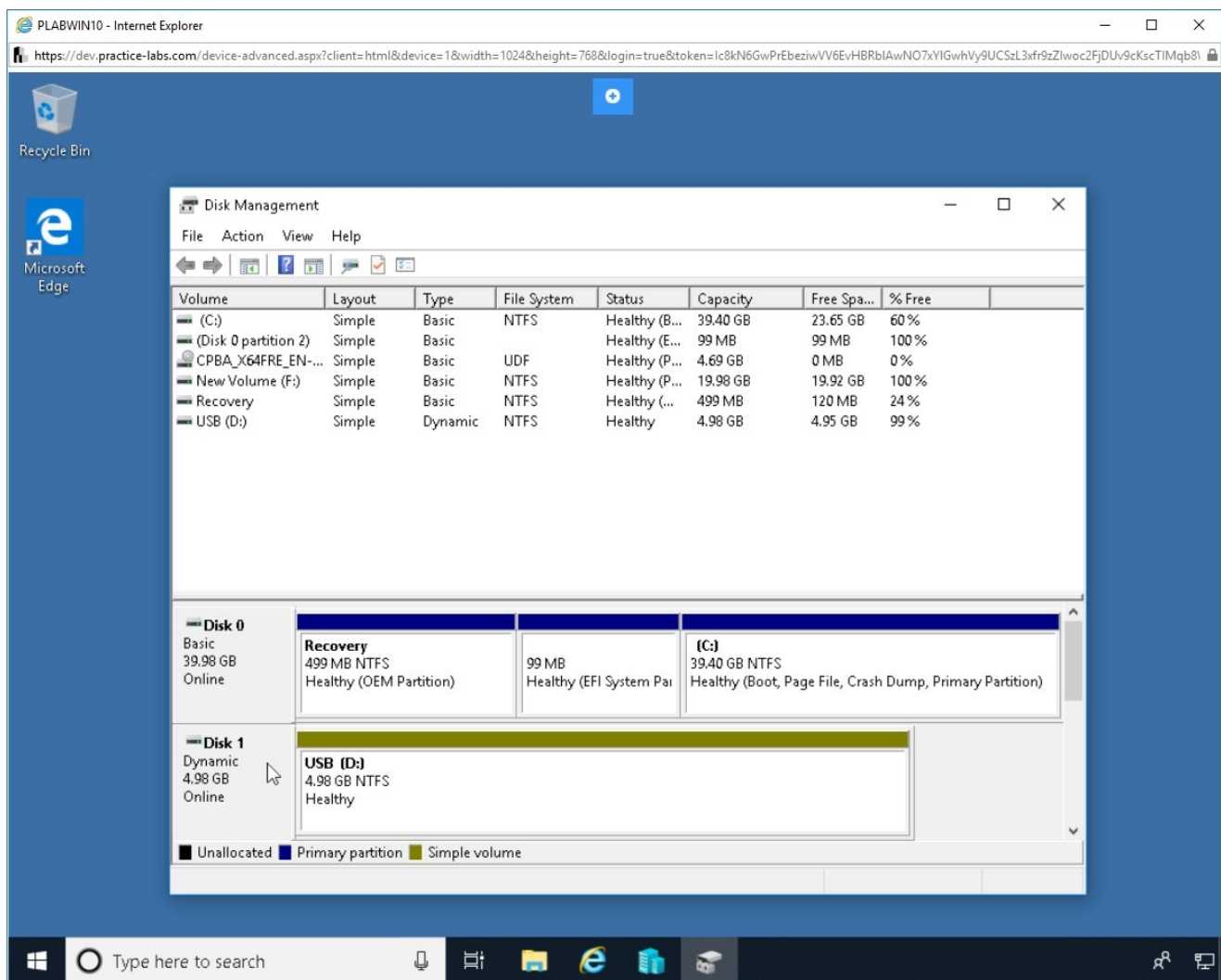
Figure 1.6 Screenshot of PLABWIN10: Showing the dynamic disk after conversion.

Task 2 - Create a Primary Partition

Basic disk partitioning is the most commonly used type of disk partitioning method. Only two types of drives can be created using the basic disk partition method. They are Primary and logical.

The basic file system formats disks using one of the two: Master Boot Record (MBR) or GUID partition table. MBR method makes use of a partition table, which contains a list of locations, where partitions are present. A primary partition, which is marked Active, is the one in which an operating system can be installed.

In this task, you will create a primary partition.

Step 1

Ensure you are connected to **PLABWIN10** and that the **Disk Management** window is open.

To create a new partition, you require empty space on a hard drive. At present, there is no empty space on any of the hard drives. To create a partition, you need first to create empty space.

Right-click **USB (D:)** in the right pane and then select **Delete volume.**
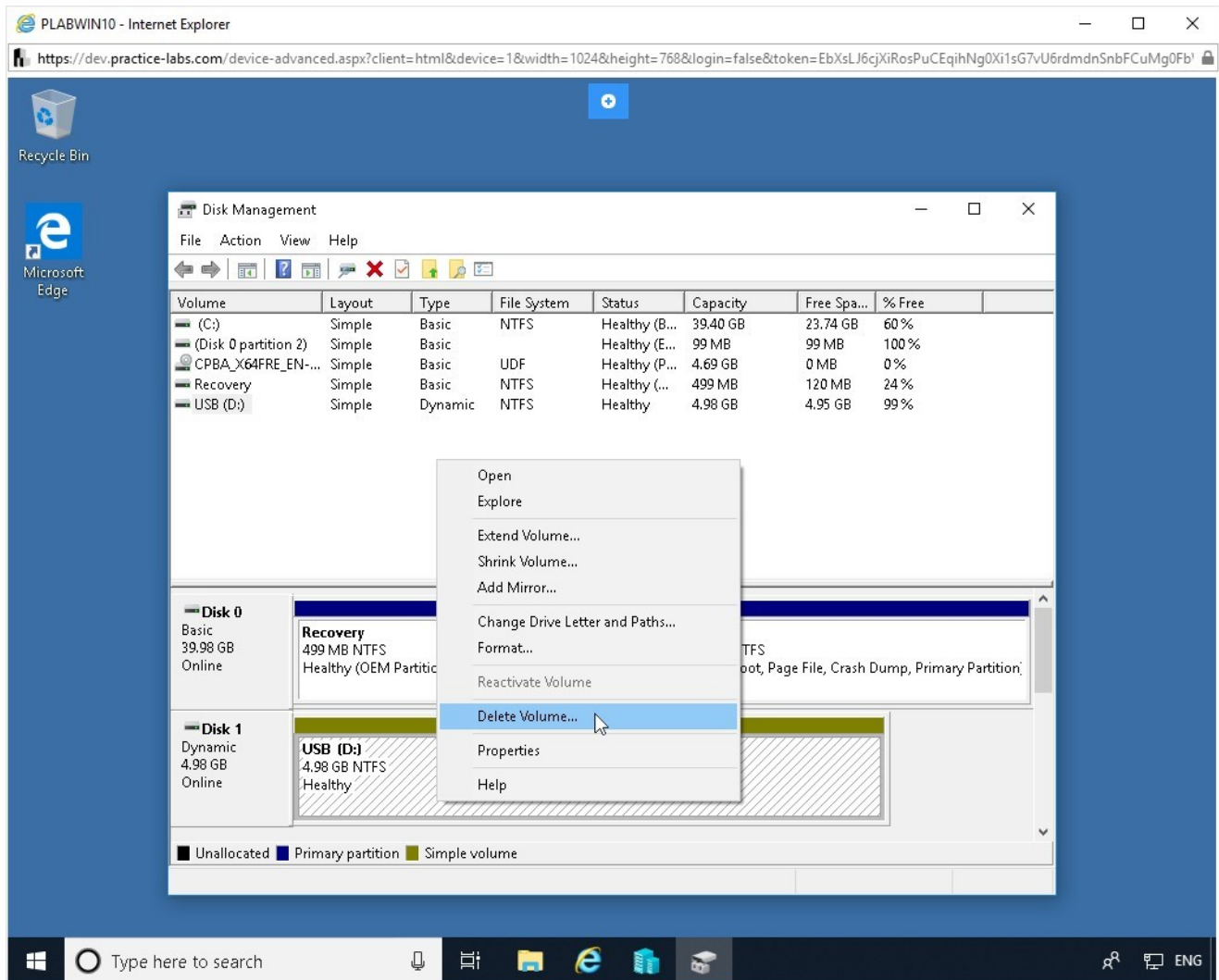
Figure 1.7 Screenshot of PLABWIN10: Selecting the Delete Volume option from the context menu.

Step 2

The **Delete simple volume** dialog box is displayed. Click **Yes**.
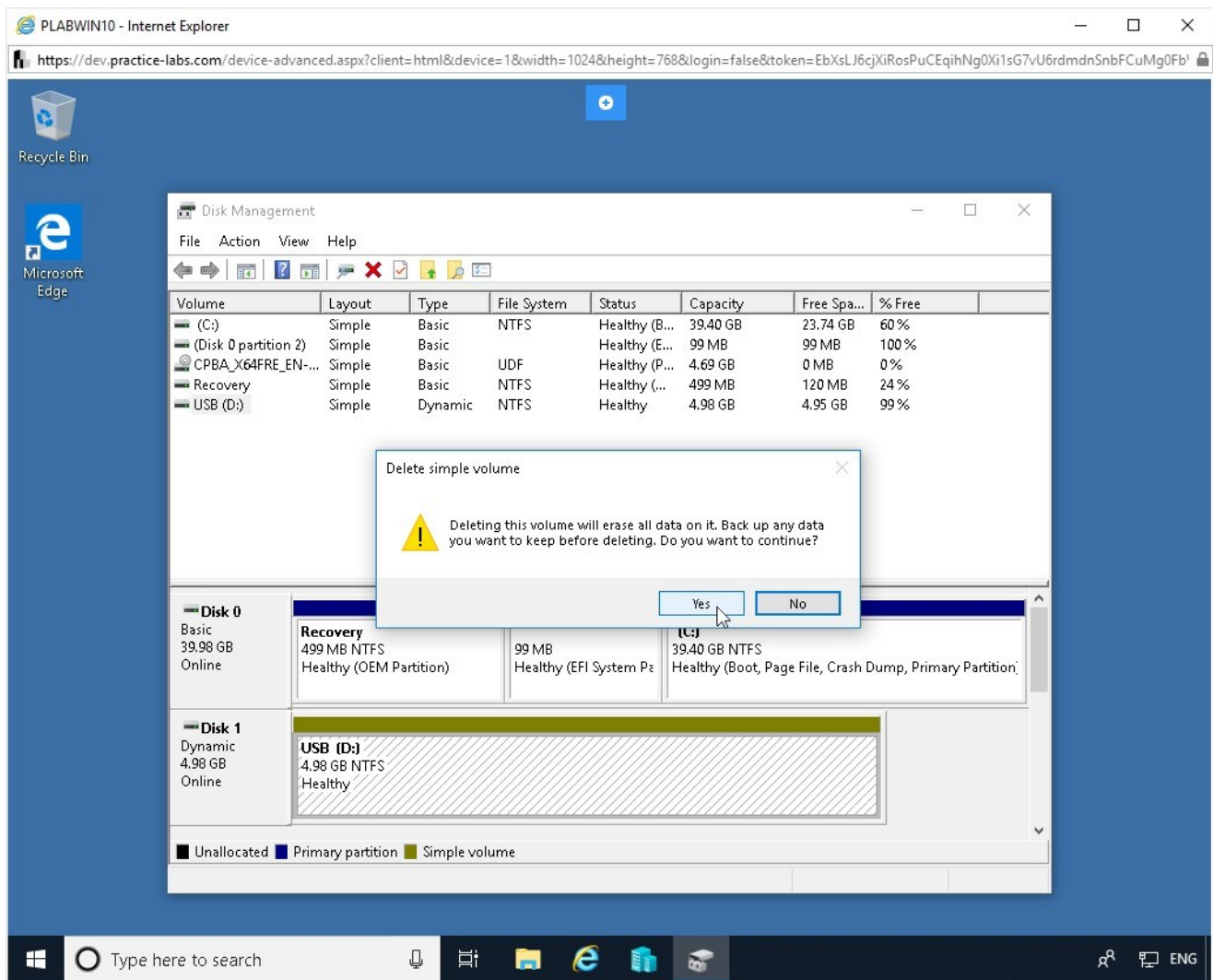
Figure 1.8 Screenshot of PLABWIN10: Showing a warning message in the Delete simple volume dialog box. Yes is selected.

Step 3

Notice that the **USB (D:)** name is no longer visible. This space is now empty and can be used for creating a partition.

Disk 1 currently has no partitions, and it is marked as **Unallocated**.

Right-click on **Unallocated** and then select **New Simple Volume** from the context menu.
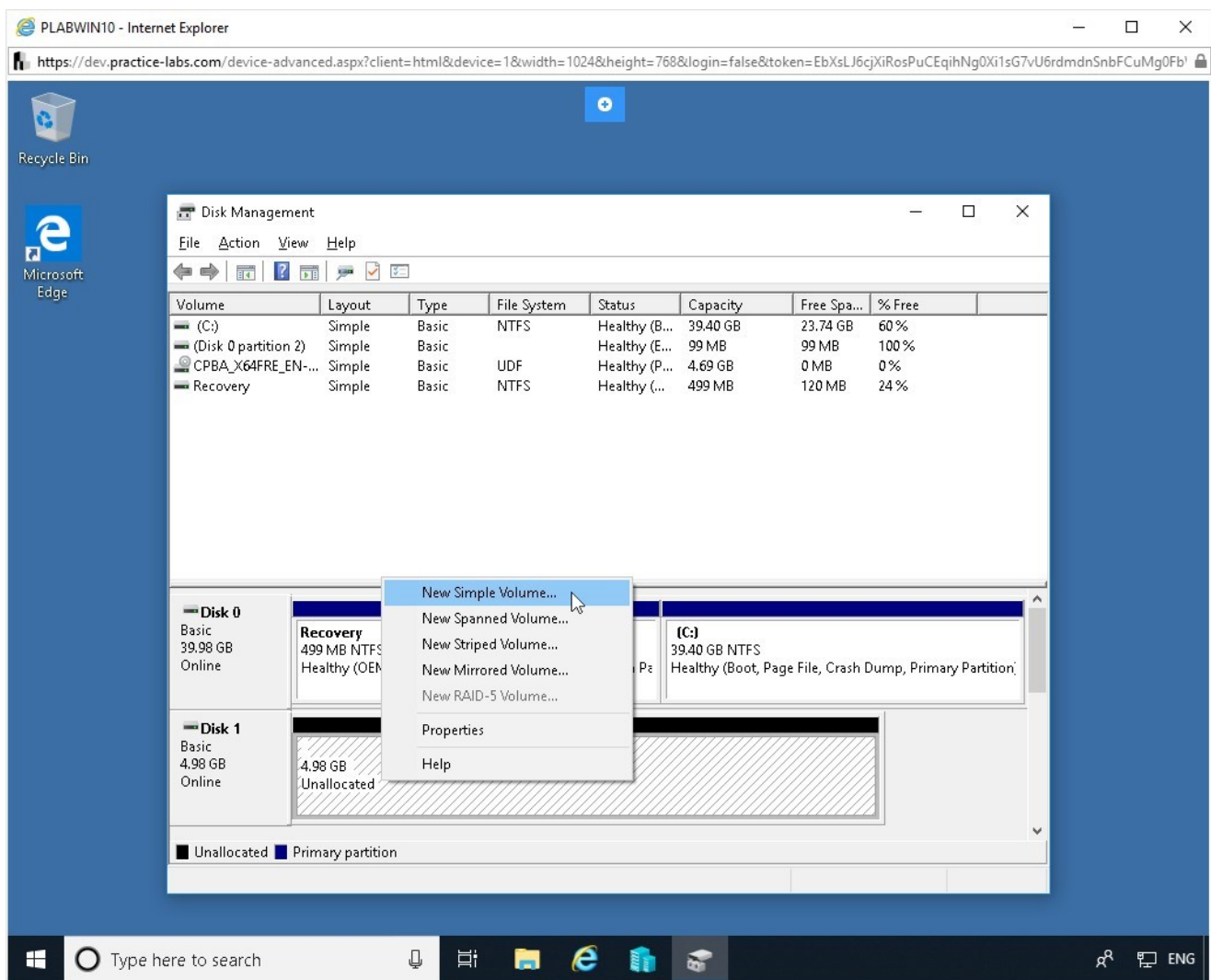
Figure 1.9 Screenshot of PLABWIN10: Selecting the New Simple Volume option from the context menu.

Step 4

The **New Simple Volume Wizard** is displayed.

On the **Welcome to the New Simple Volume Wizard** page, click **Next**.
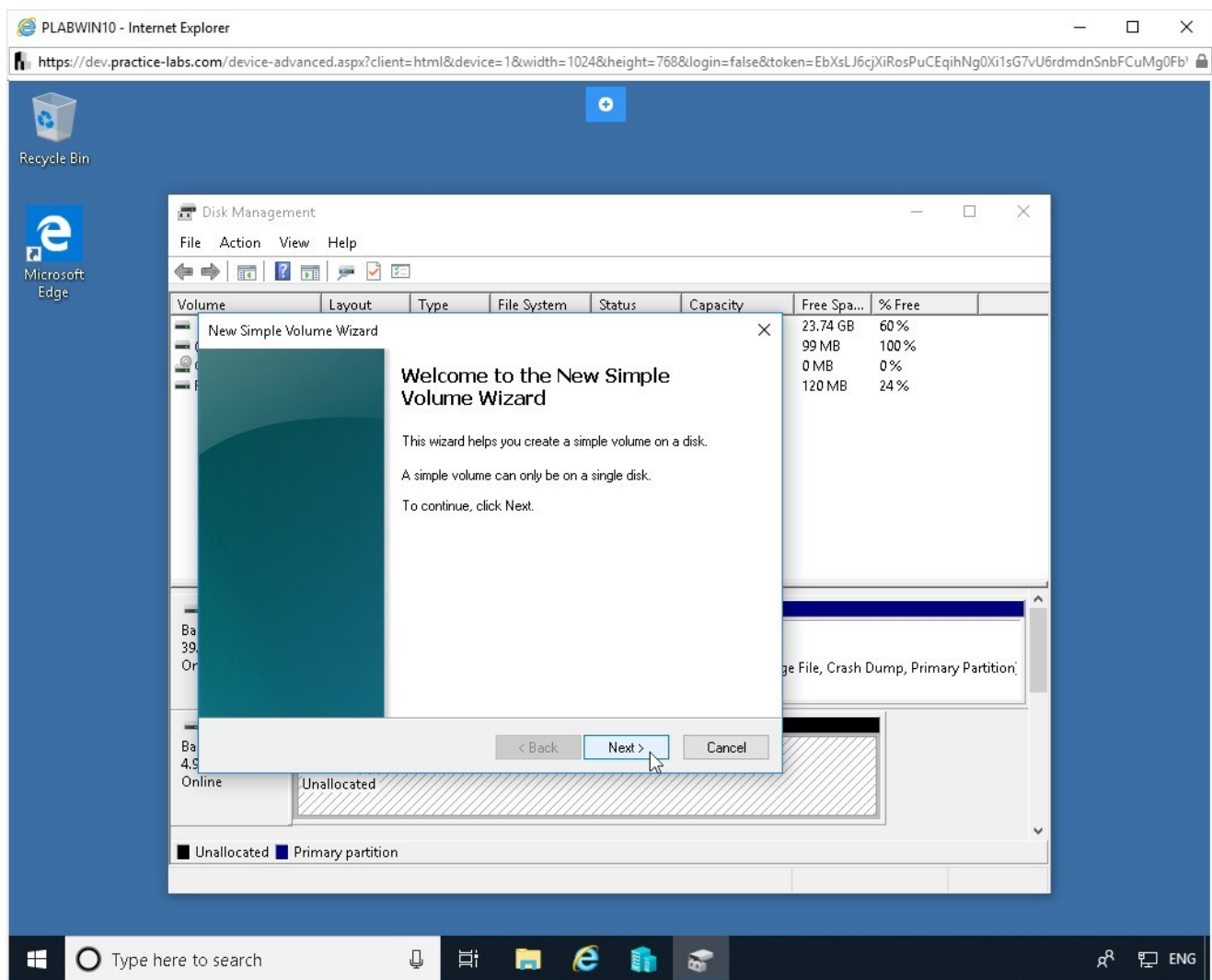
Figure 1.10 Screenshot of PLABWIN10: Showing the Welcome page of the New Simple Volume Wizard.

Step 5

On the **Specify Volume Size** page, keep the default volume size and click **Next**.
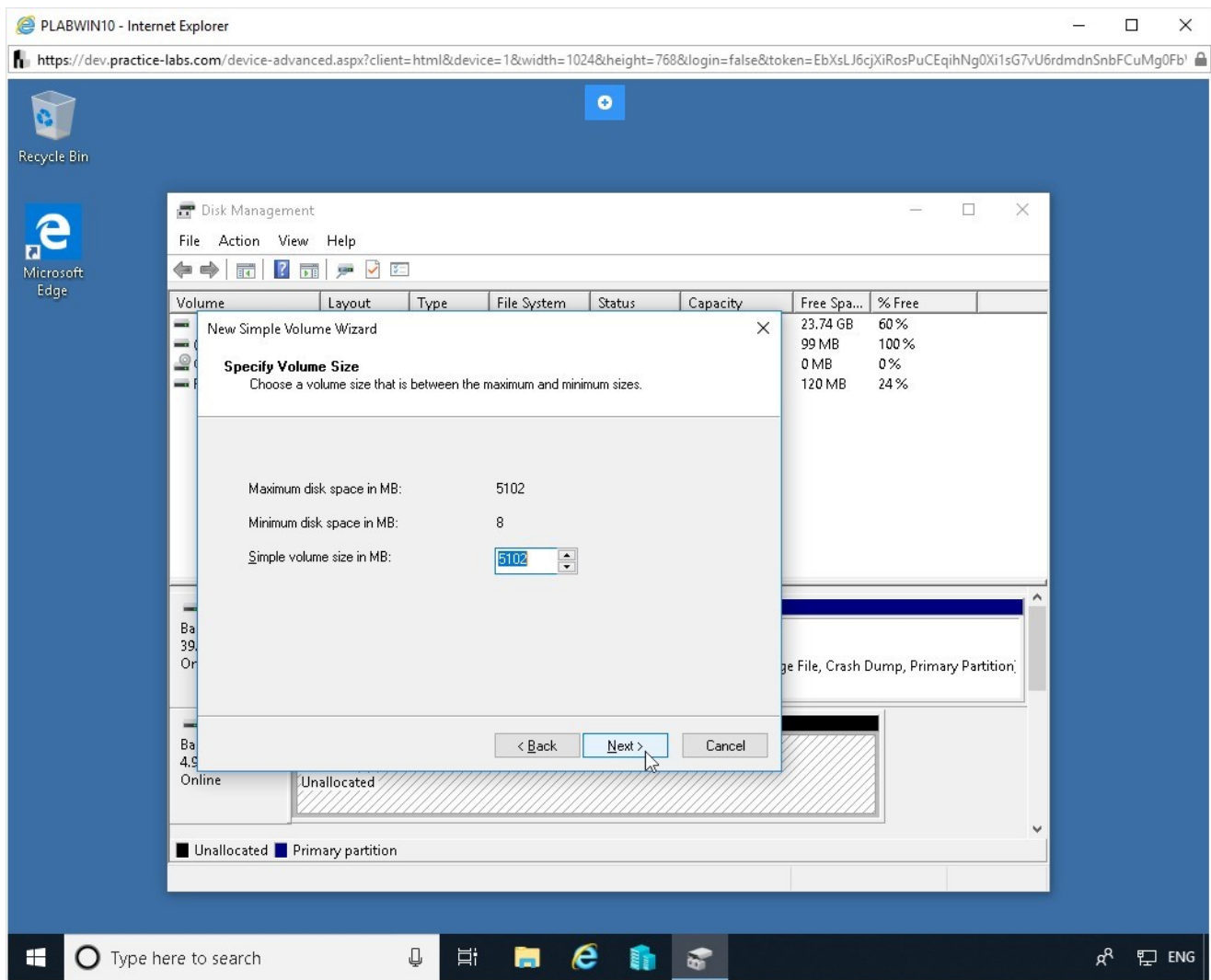
Figure 1.11 Screenshot of PLABWIN10: Setting the size of the simple volume on the Specify Volume Size page.

Step 6

On the **Assign Drive Letter or Path** page, keep the default selection for the drive letter and click **Next**.
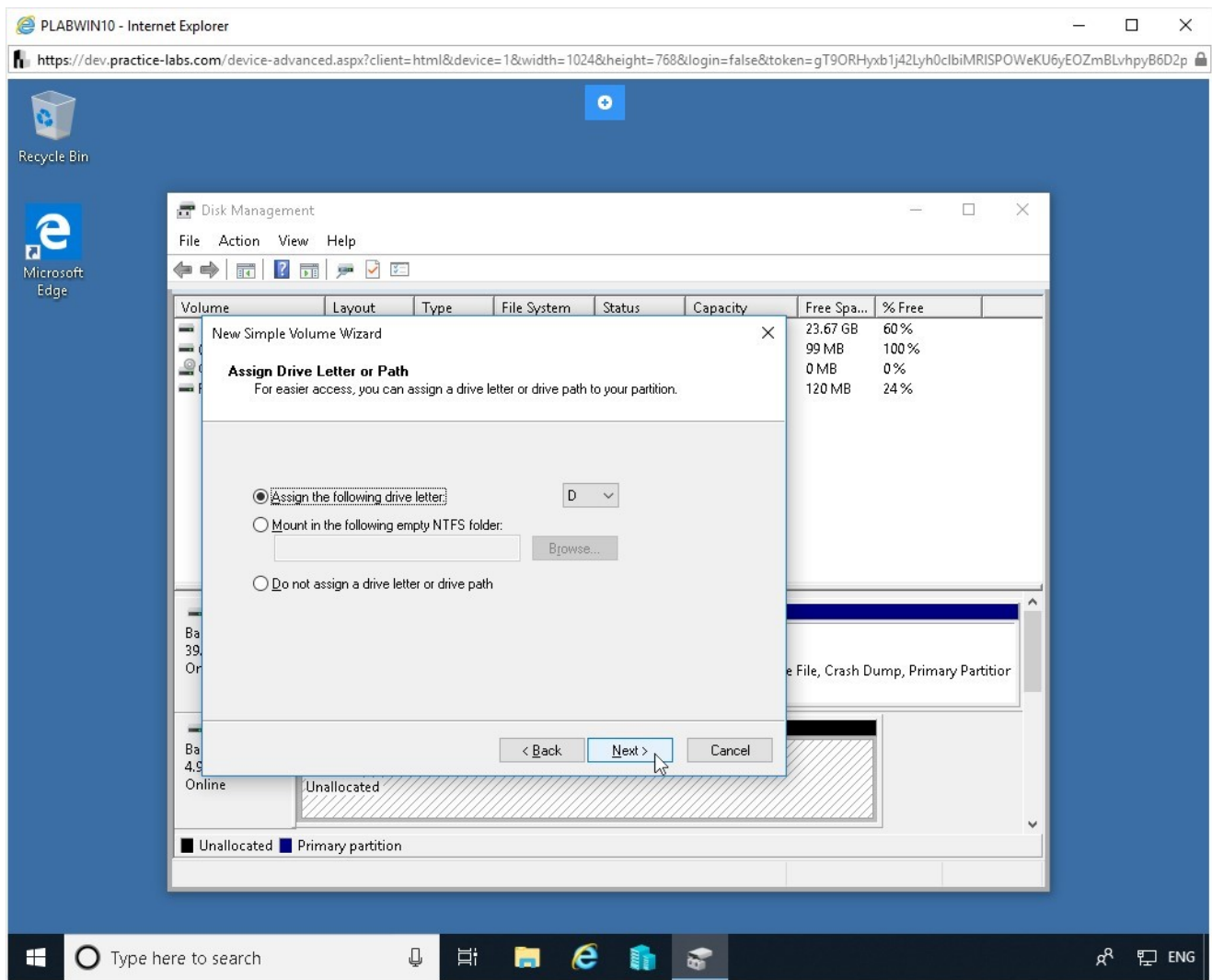
Figure 1.12 Screenshot of PLABWIN10: Assigning the drive letter on the Assign Drive Letter or Path page.

Step 7

On the **Format Partition** page, keep the default options and click **Next**.
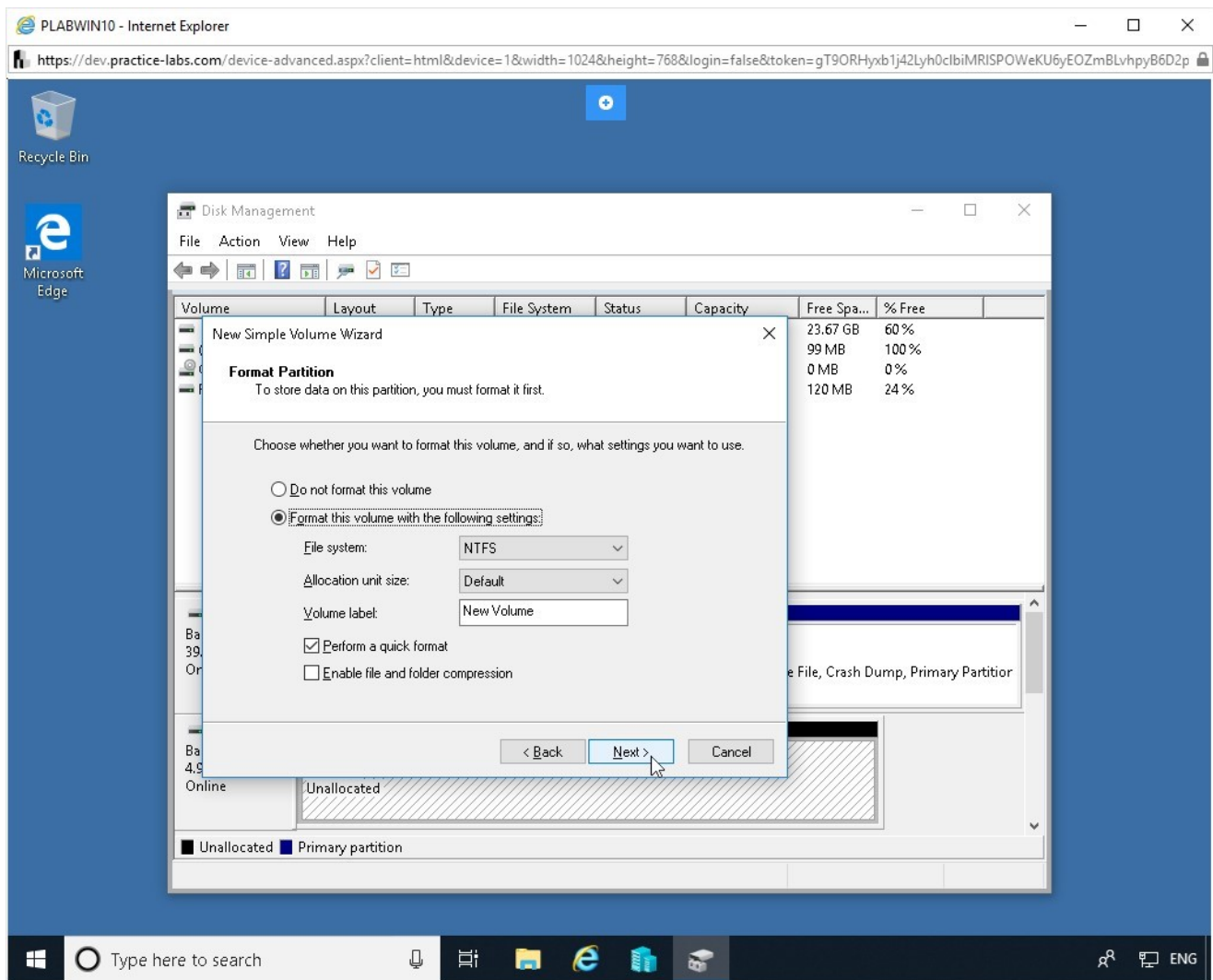
Figure 1.13 Screenshot of PLABWIN10: Setting the format options on the Format Partition page.

Step 8

On the **Completing the New Simple Volume Wizard** page, click **Finish**.
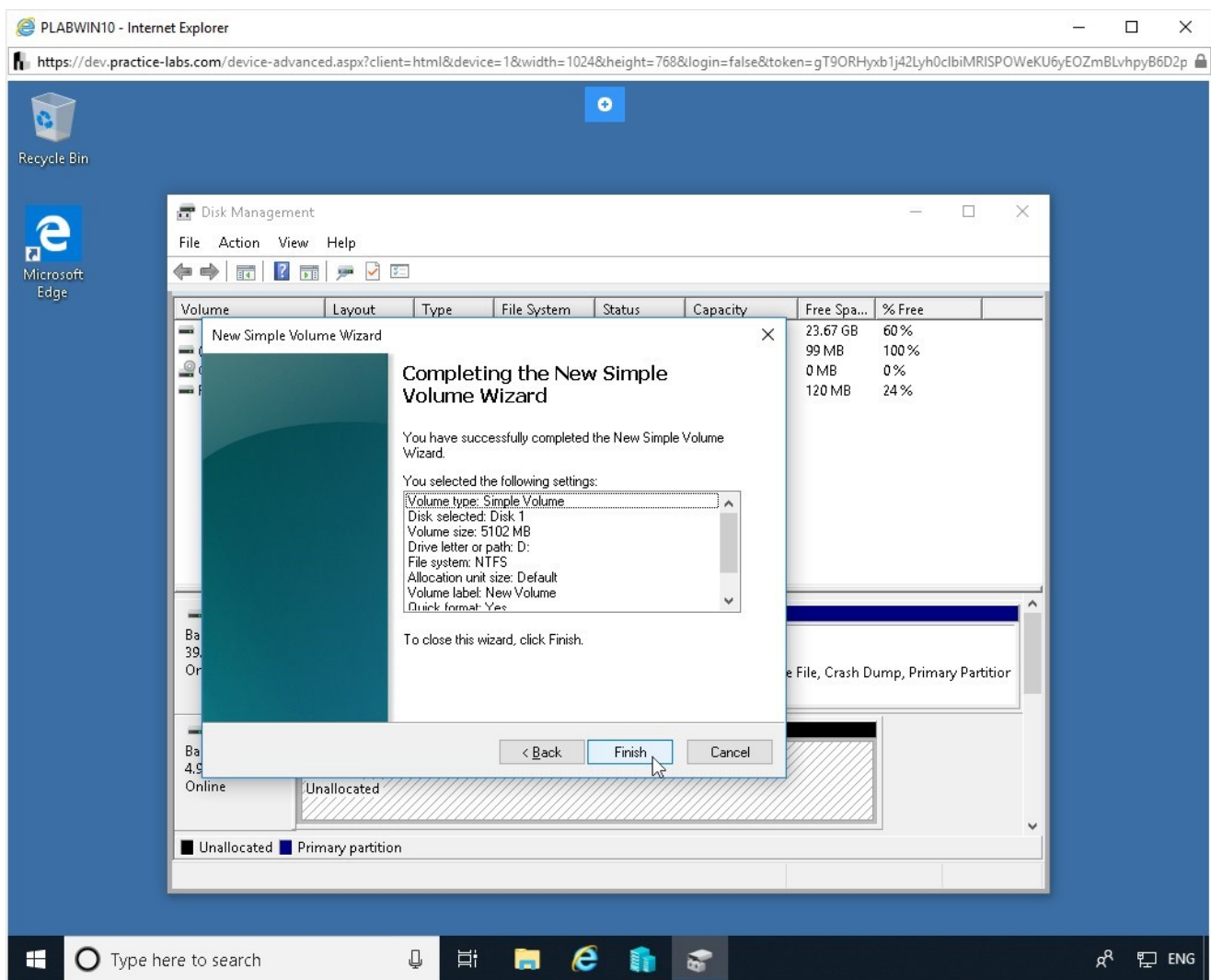
Figure 1.14 Screenshot of PLABWIN10: Showing the completion of the New Simple Volume Wizard.

Step 9

You are back on the **Disk Management** window. A new primary partition has been created.

Keep the **Disk Management** window open.
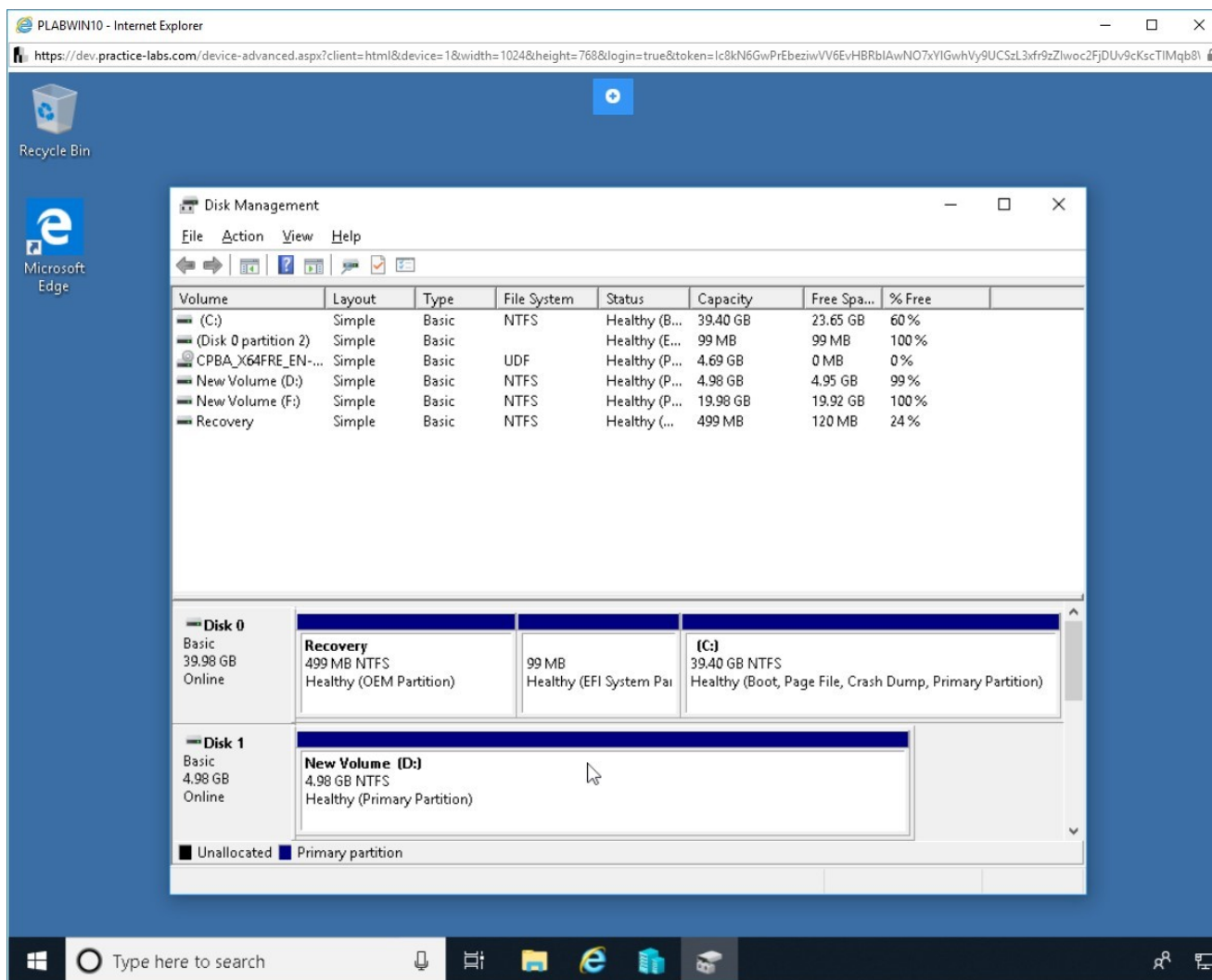
Figure 1.15 Screenshot of PLABWIN10: Showing the newly created volume in Disk Management.

Task 3 - Create a Primary and Logical Partition

A hard disk can only contain a single extended partition. A single extended partition may contain multiple logical partitions. A logical partition is a sub-division of an extended partition.

Creating an extended partition is possible only on an MBR type of disk.

In this task, you will create an primary partitions aswell as a logical partition.

> **Note:** *Before creating a standard partition, three primary partitions need to be present.*

Step 1

Ensure you are connected to **PLABWIN10** and that the **Disk Management** window is open.

Right-click the **New Volume (D:)** partition and select **Delete Volume**.
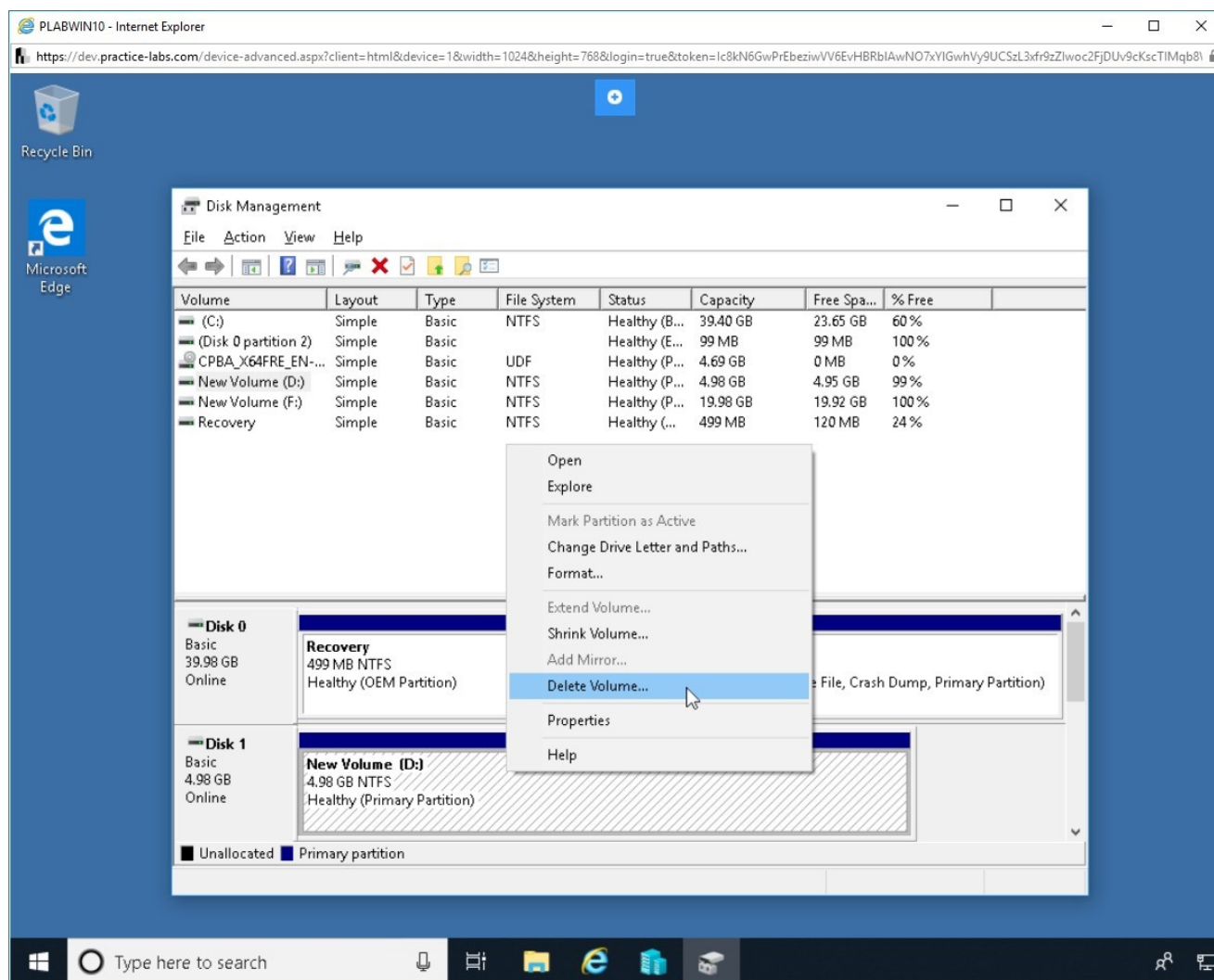
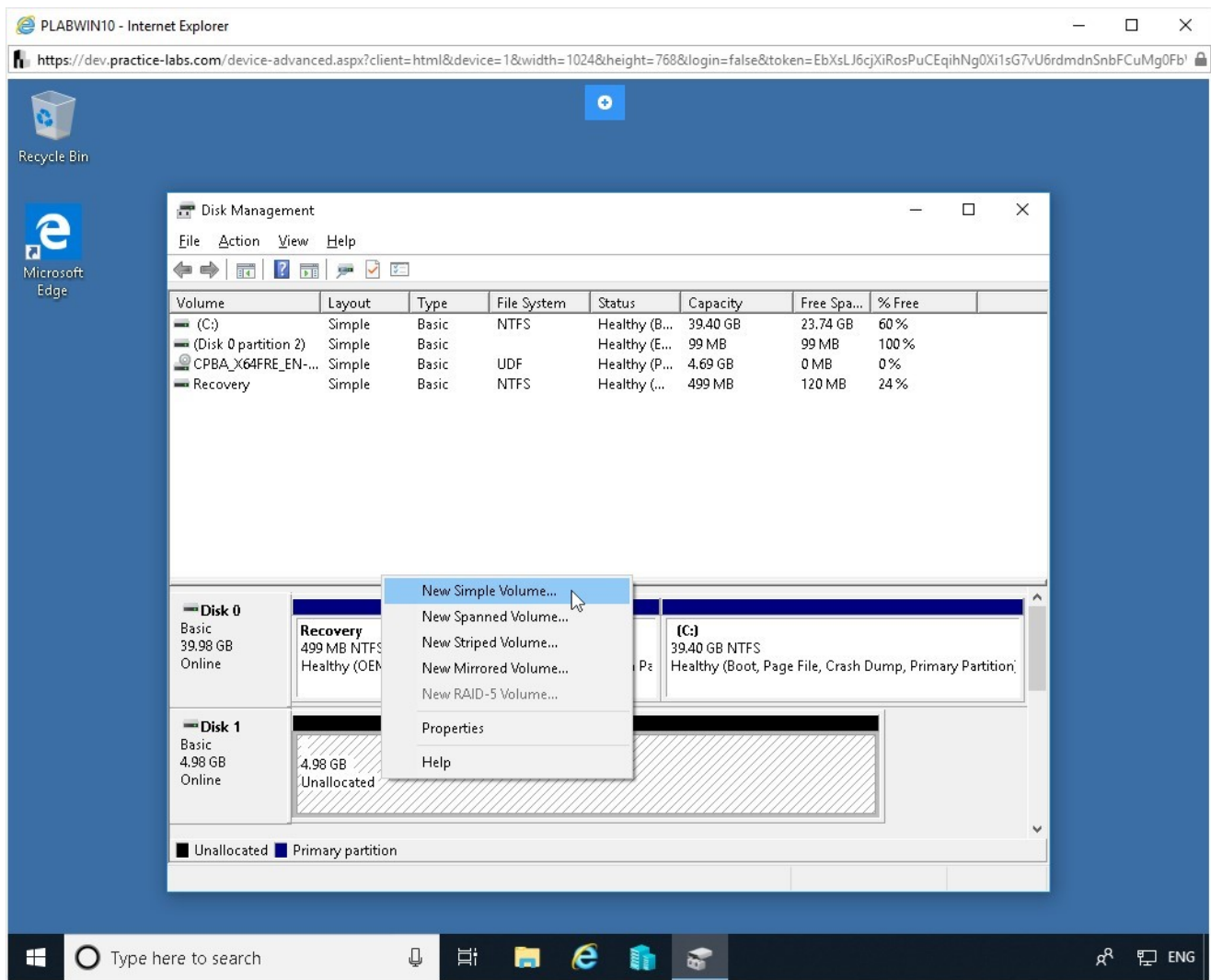Figure 1.16 Screenshot of PLABWIN10: Selecting the Delete Volume option from the context menu.

Step 2

The **Delete simple volume** dialog box is displayed. Click **Yes**.
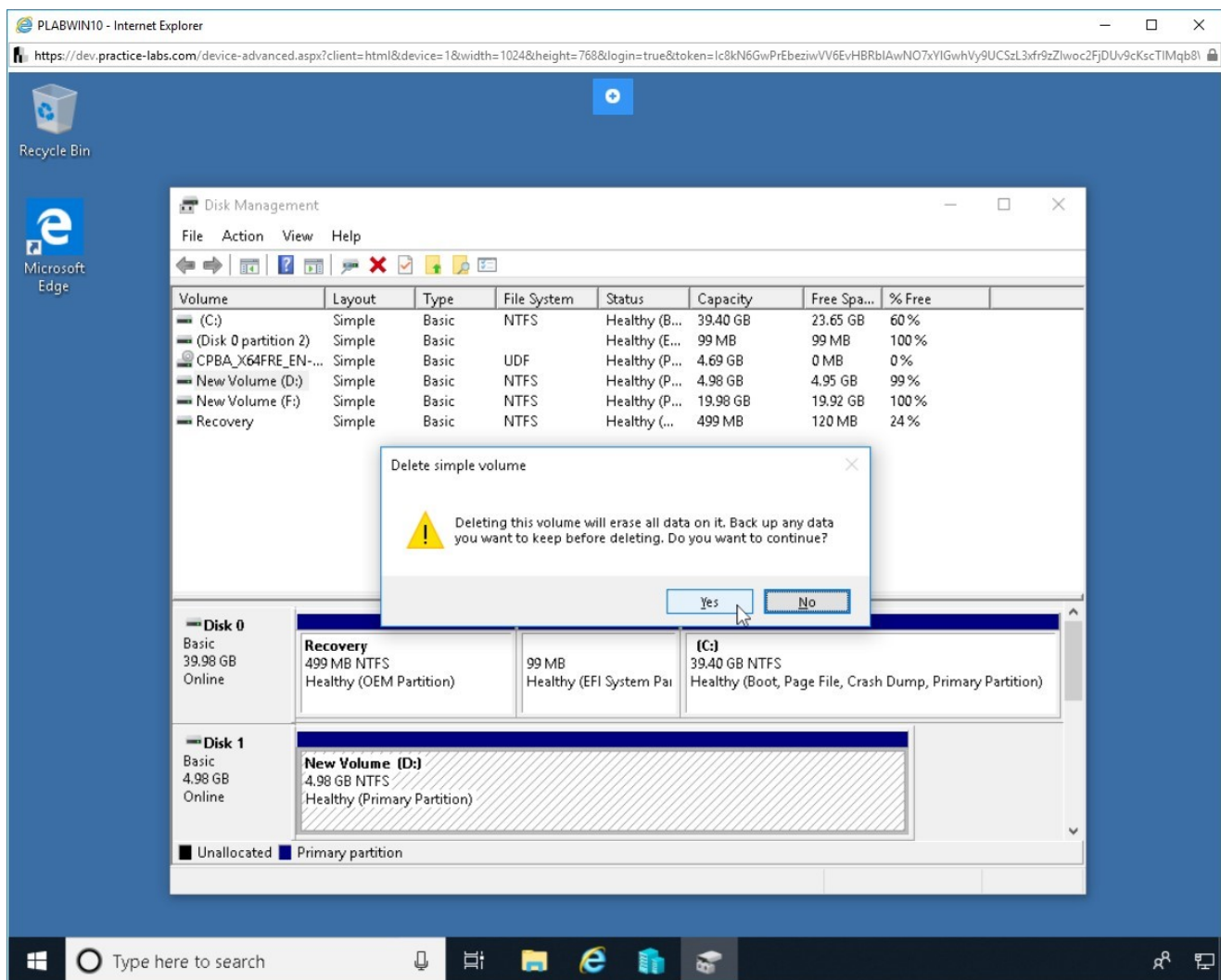
Figure 1.17 Screenshot of PLABWIN10: Displaying a warning on the Delete simple volume dialog box.

Step 3

Disk 1 currently has no partitions, and it is marked as **Unallocated**.

Right-click **Disk 1**, and then select **Convert to MBR Disk** from the context menu.
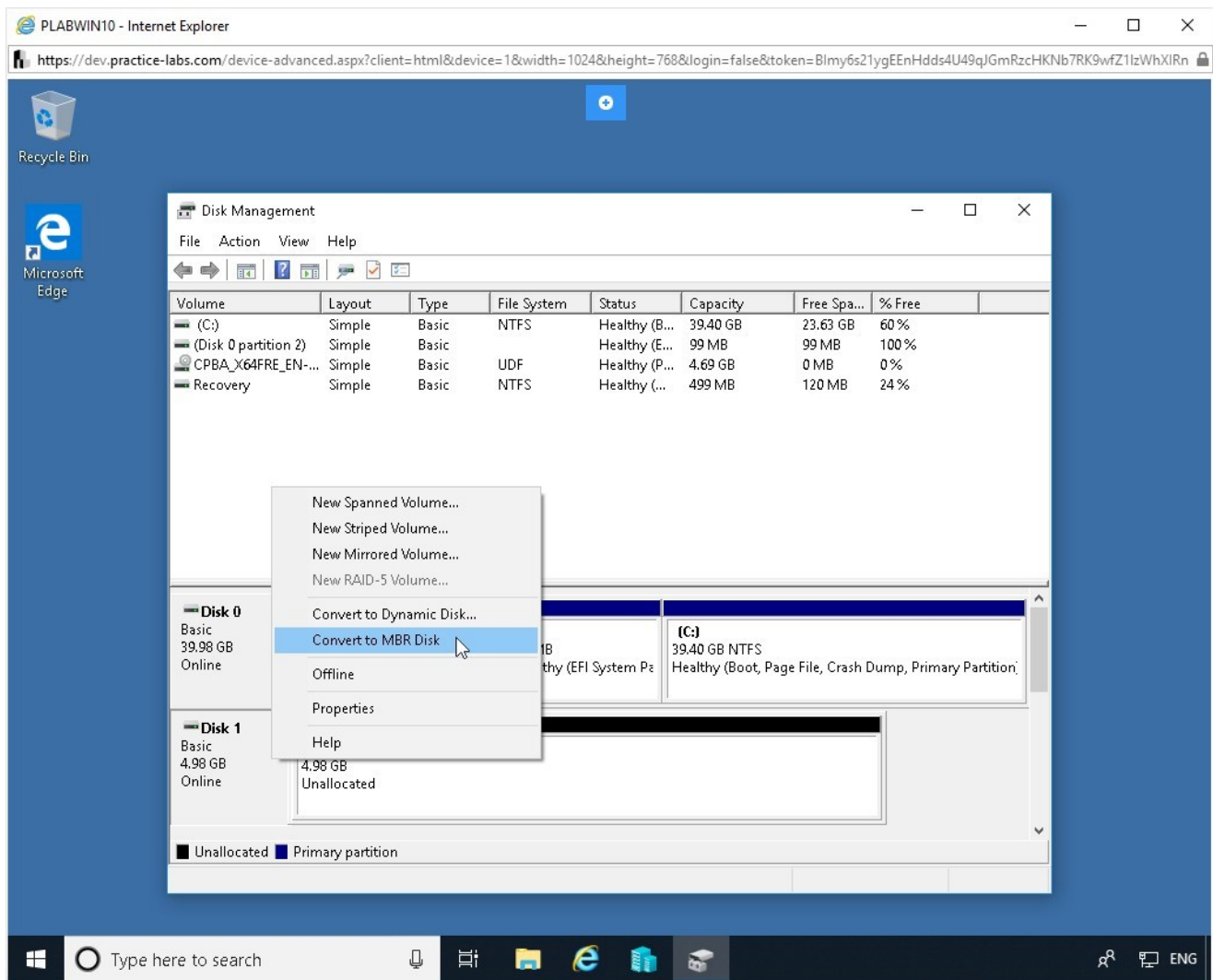
Figure 1.18 Screenshot of PLABWIN10: Selecting the Convert to MBR Disk option from the context menu.

Step 4

Right-click the **Unallocated** space, and then select **New Simple Volume** from the context menu.

Figure 1.19 Screenshot of PLABWIN10: Selecting the New Simple Volume option from the context menu.

Step 5

The **New Simple Volume Wizard** is displayed.

On the **Welcome to the New Simple Volume Wizard** page, click **Next**.
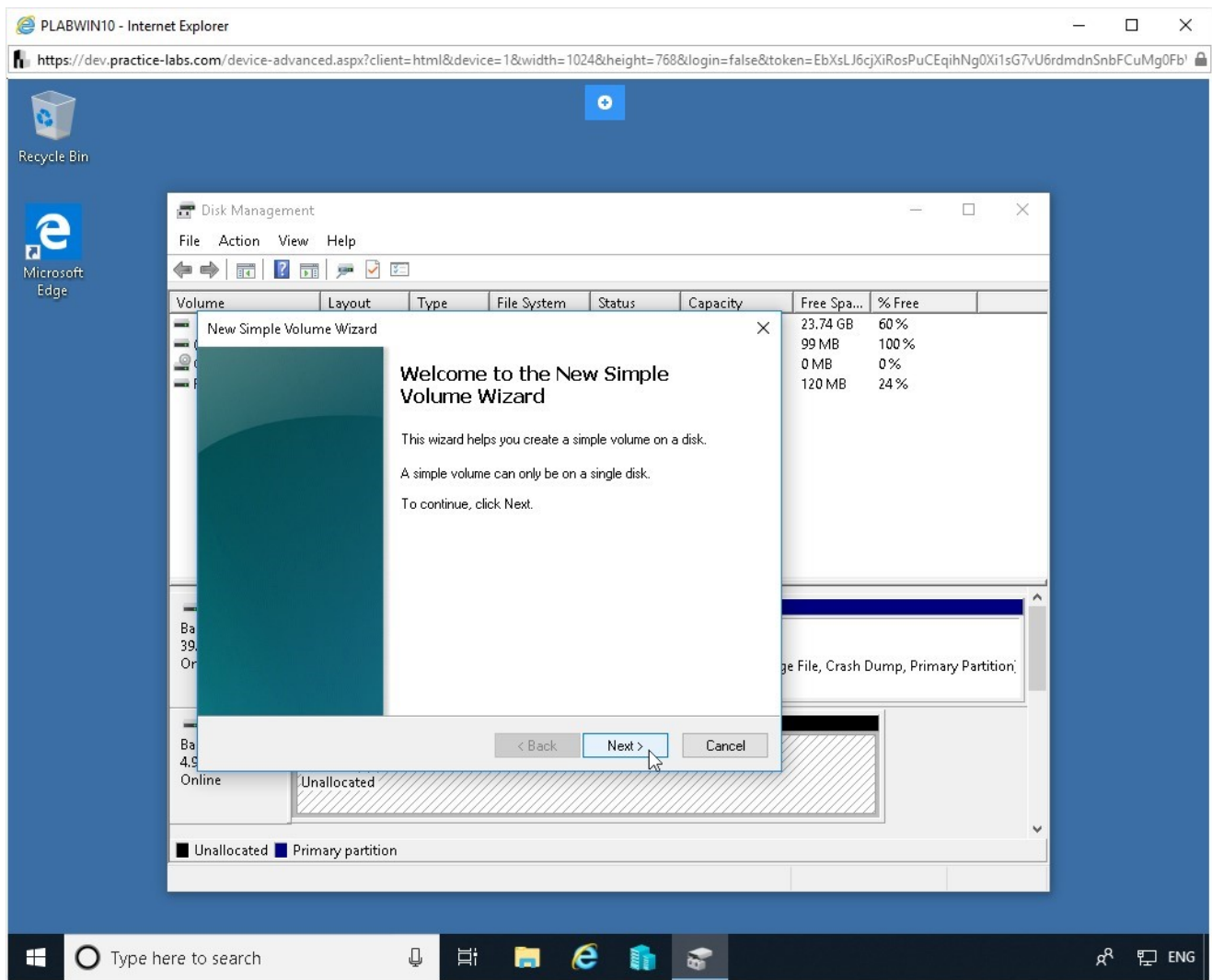
Figure 1.20 Screenshot of PLABWIN10: Showing the welcome page of the New Simple Volume Wizard.

Step 6

On the **Specify Volume Size** page, enter the following value in the **Simple volume size in MB** text box:

500

Then, click **Next**.
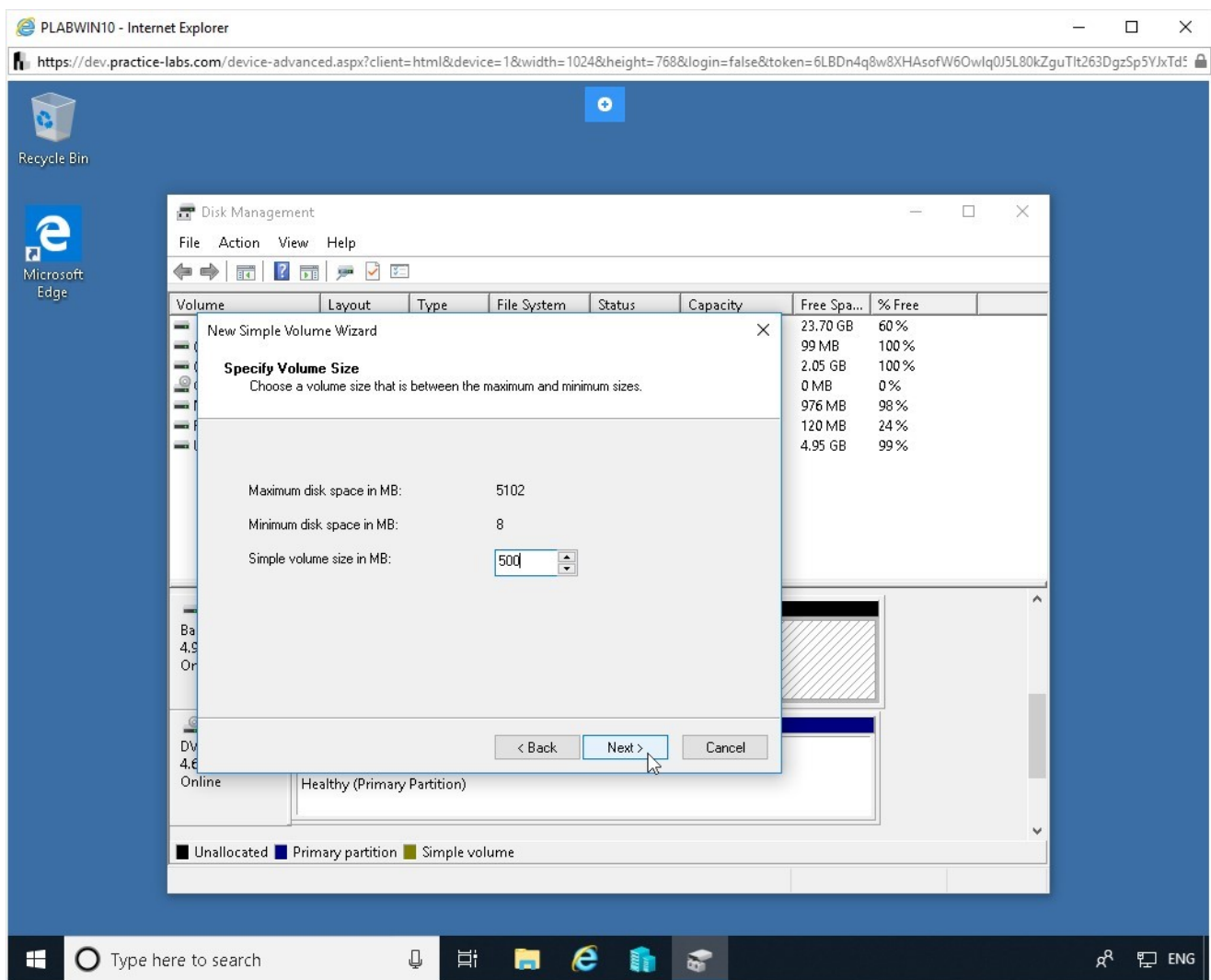
Figure 1.21 Screenshot of PLABWIN10: Setting the size of the simple volume on the Specify Volume Size page.

Step 7

On the **Assign Drive Letter or Path** page, keep the default values and click **Next**.
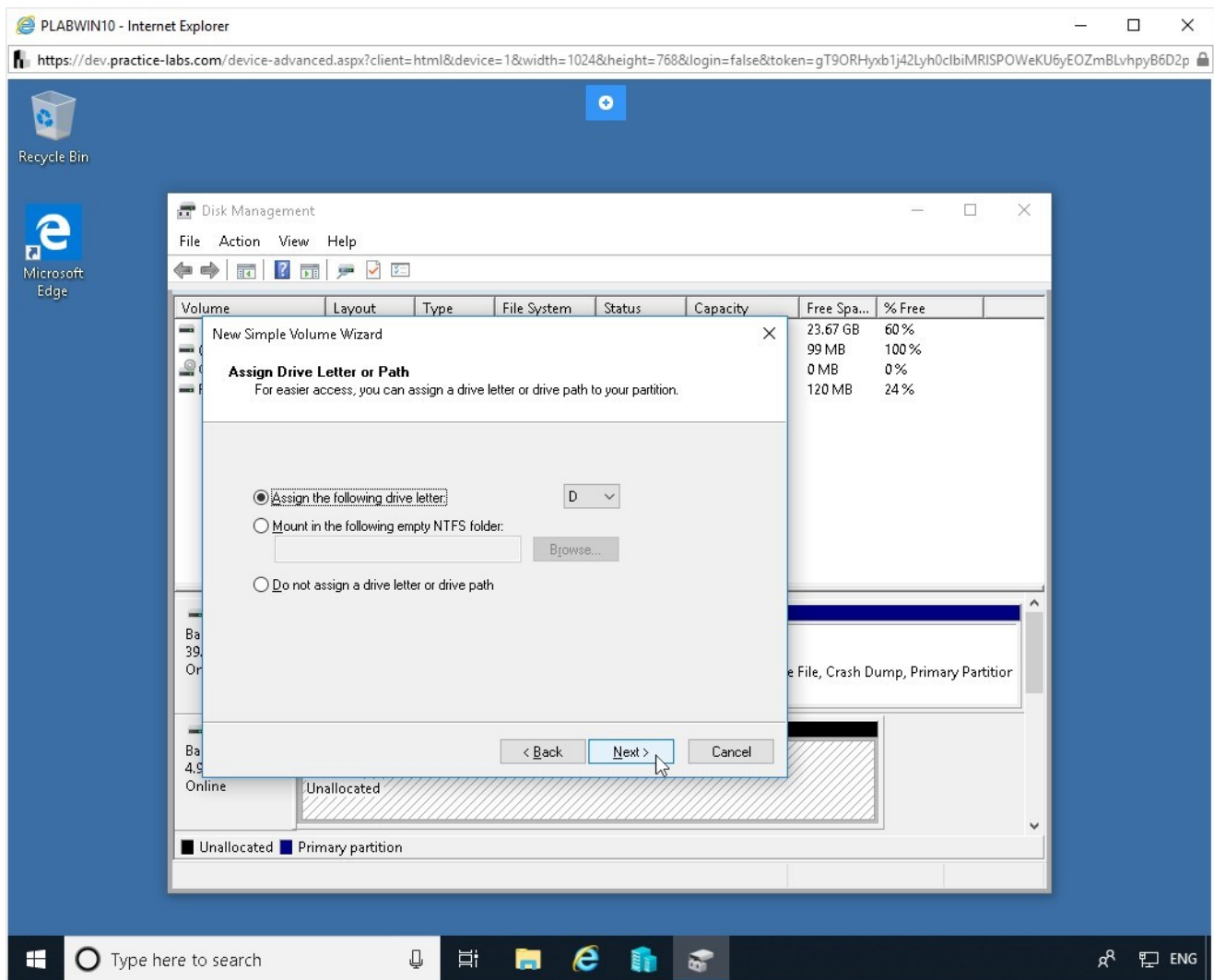
Figure 1.22 Screenshot of PLABWIN10: Assigning the drive letter on the Assign Drive Letter or Path page.

Step 8

On the **Format Partition** page, keep the default values and click **Next**.
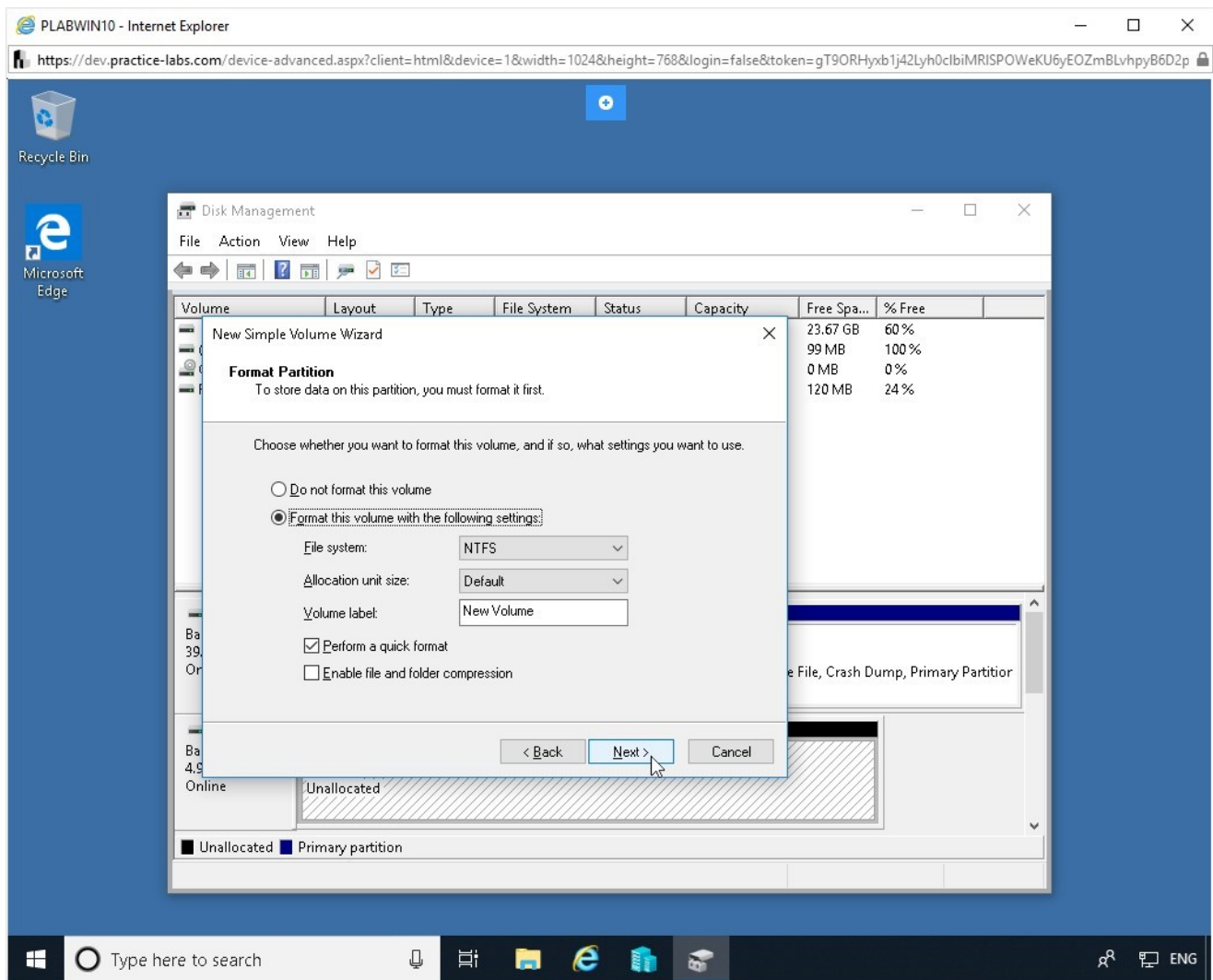
Figure 1.23 Screenshot of PLABWIN10: Setting the format options on the Format Partition page.

Step 9

On the **Completing the New Simple Volume Wizard** page, click **Finish**.
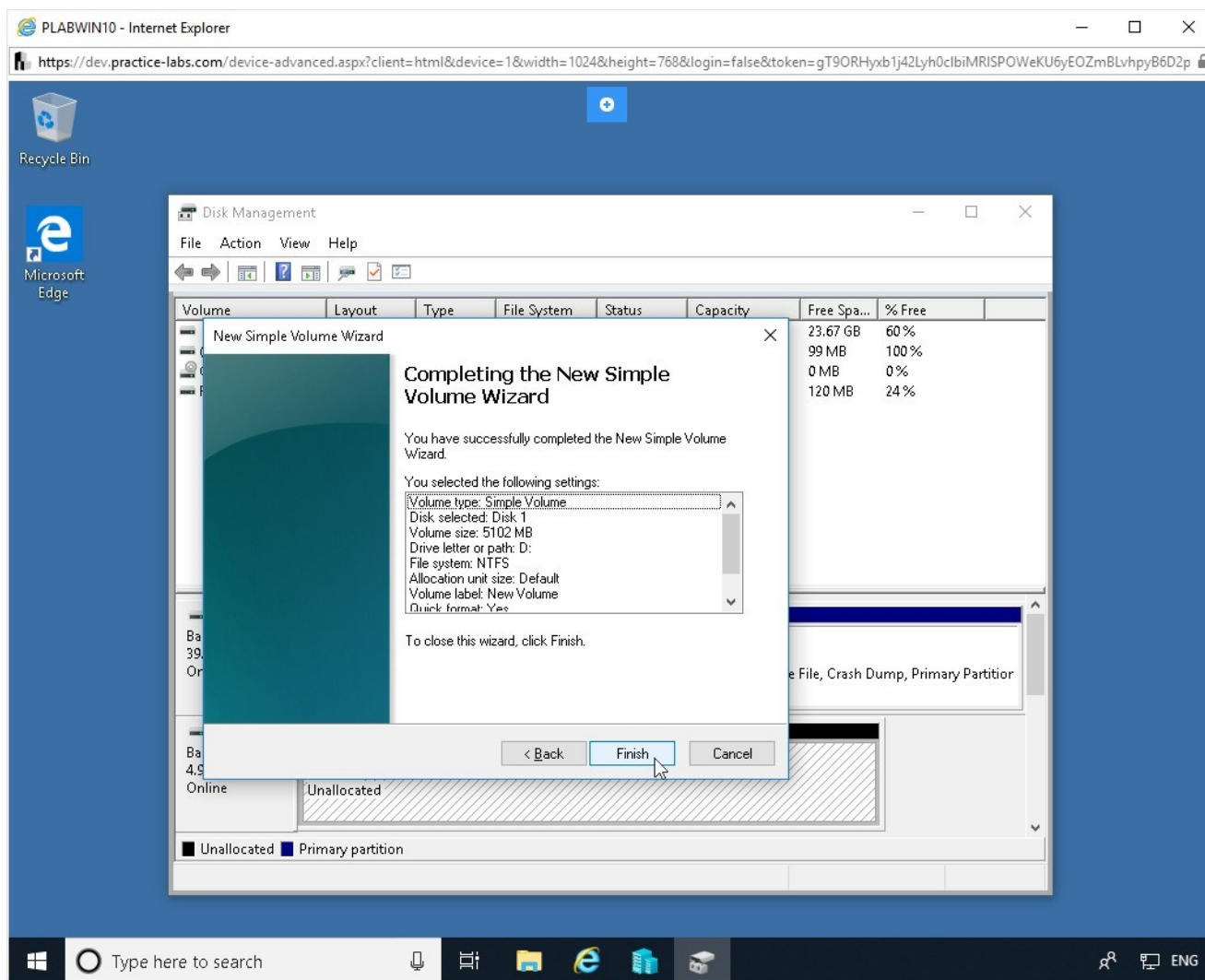
Figure 1.24 Screenshot of PLABWIN10: Showing the completion of the New Simple Volume Wizard.

Step 10

Create two more primary partitions. To summarize:

- Right-click the **Unallocated** space, and then select **New Simple Volume** from the context menu.
- Click **Next** when prompted.
- Enter the value **500** in the **Simple volume size in MB** text box.
- Click **Next** when prompted, then **Finish**.

> **Note**: *For more detailed instructions, please follow **steps 4-9** in this task.*

Then, create one more partition.

Notice that this partition will automatically be marked as **Logical**. The first three partitions are marked as **Primary**.

Keep the **Disk Management** window open.
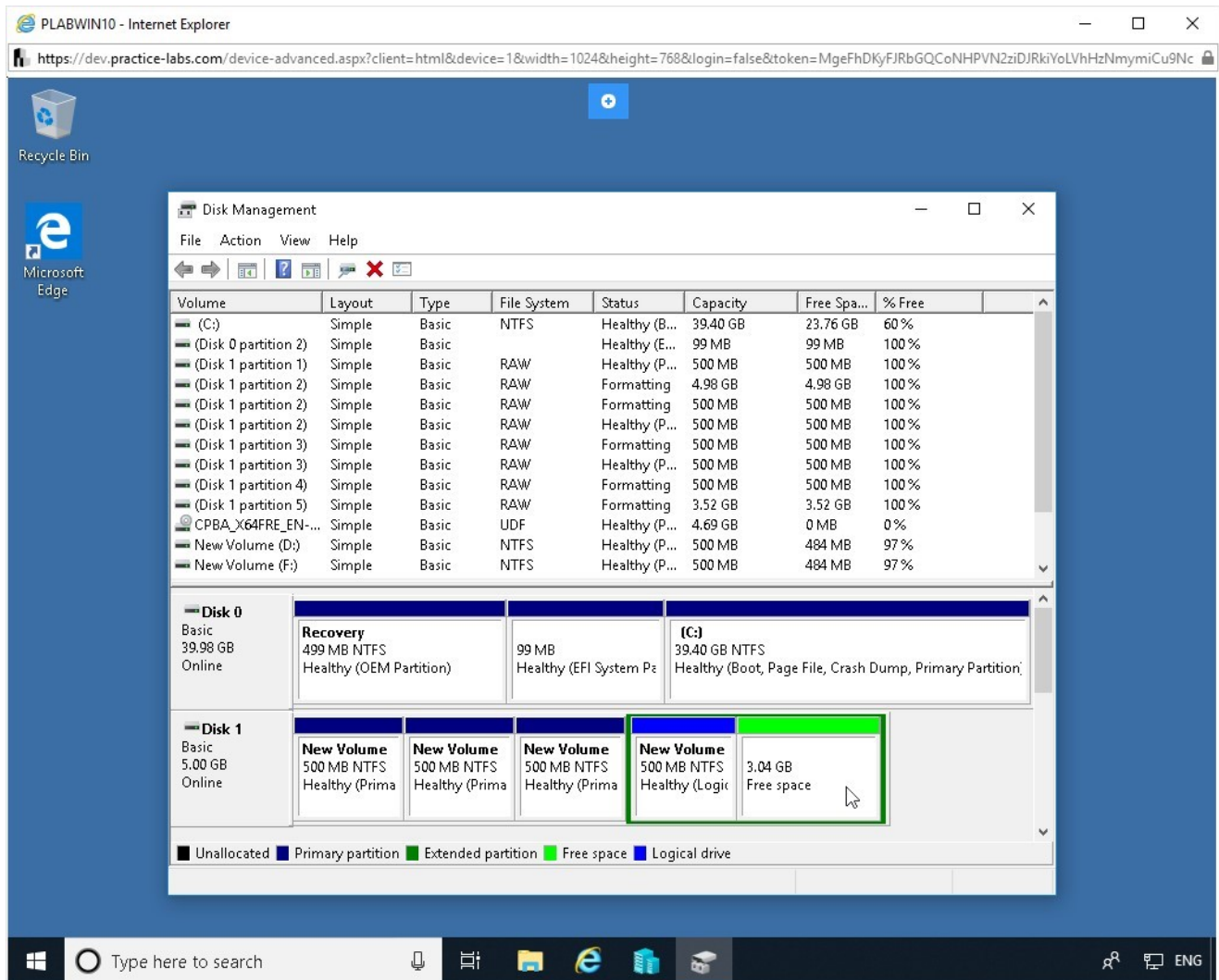
Figure 1.25 Screenshot of PLABWIN10: Showing Disk Management with newly created primary and logical partitions.

Task 4 - Convert to MBR or GPT Disk

GPT stands for a GUID Partition Table. A standard called EFI (Extensible Firmware Interface) defines the structure of the partition table.

GPT is a part of the EFI standard. GPT is an enhanced version of the MBR (Master Boot Record) partitioning system.

By using GPT, it is possible to overcome the limitations of an MBR partitioning system.

Step 1

Ensure you are connected to **PLABWIN10**.

Scroll down the page to right-click **Disk 2**, then select the **Convert to MBR Disk** from the context menu.
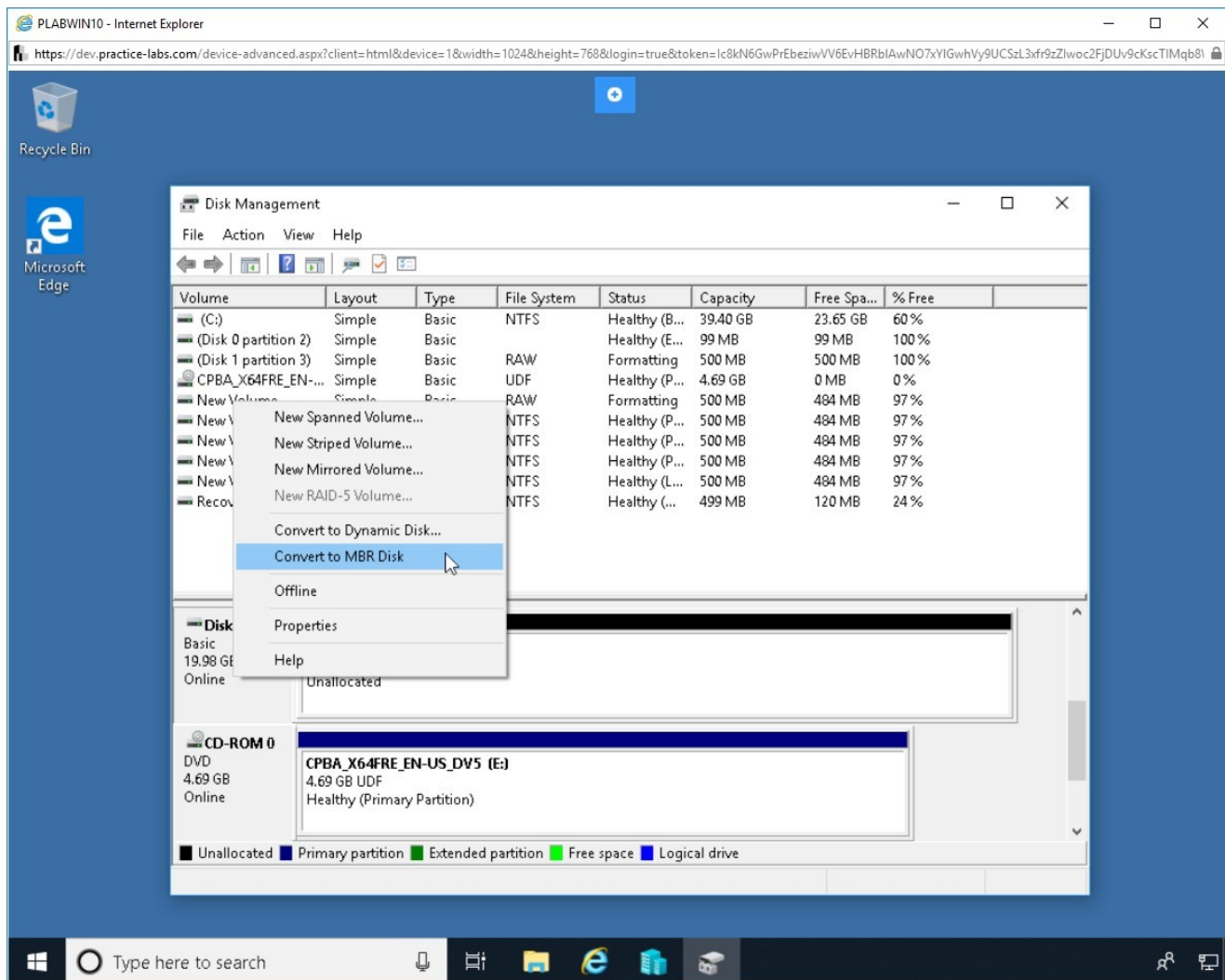
Figure 1.26 Screenshot of PLABWIN10: Selecting the Convert to MBR Disk from the context menu.

Step 2

Now that the disk is in the MBR format, it can be converted back to the GPT format. Right-click on the **Disk 2** again, then select **Convert to GPT Disk** from the context menu.
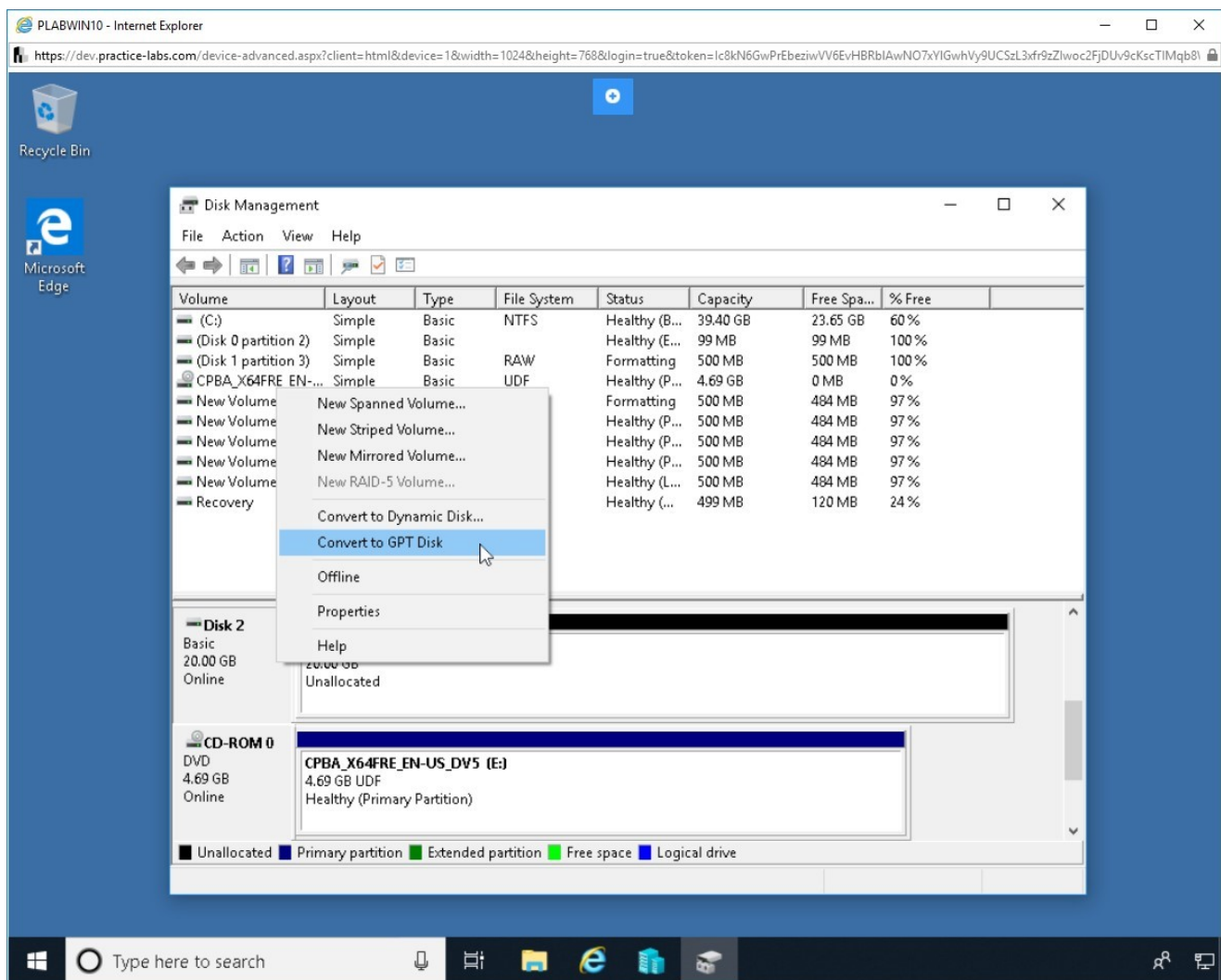
Figure 1.27 Screenshot of PLABWIN10: Selecting Convert to GPT Disk from the context menu.

Step 3

The **Disk 2** is set as GPT disk. Visually, you will not be able to differentiate between the MBR or GPT disk.

Keep the **Disk Management** window open.
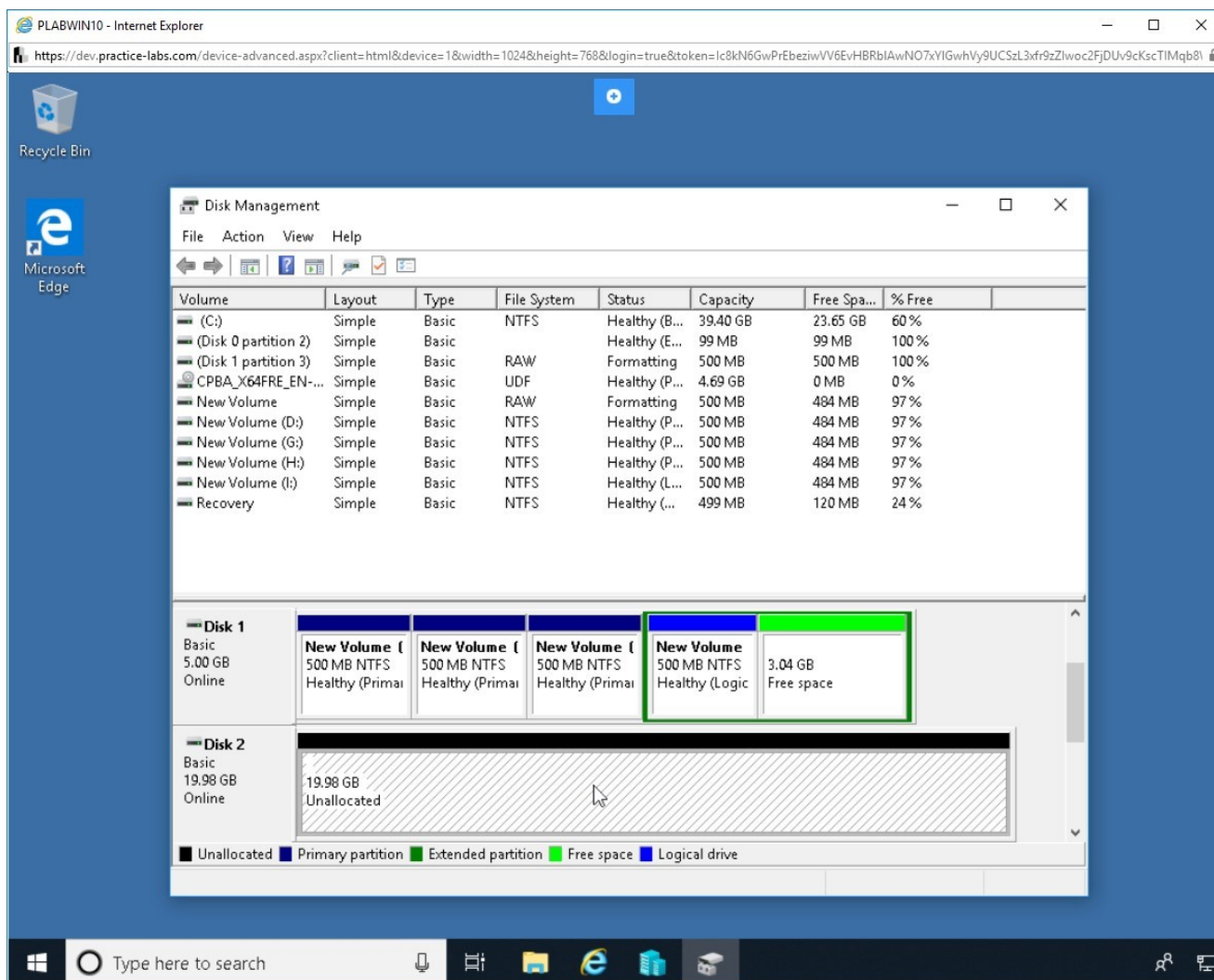
Figure 1.28 Screenshot of PLABWIN10: Showing Disk 2 after converting it to GPT disk.

Exercise 2 - Work with Different File Systems

ExFAT stands for Extended File Allocation Table. ExFAT is ideal for USB flash drives since it is optimized for external storage devices. ExFAT is lightweight and does not have as many features like NTFS. ExFAT doesn't have the limitations FAT32 does - the maximum file size limitation is much larger in the ExFAT than in FAT32. All modern versions of the Windows operating system and Mac OS extension support ExFAT.

CDFS stands for Compact Disk File Format. CDFS is present in the Linux and Windows operating systems. In Linux, CDFS is used to transfer tracks and bootable images to the compact disk. In windows, CDFS acts as a driver to CD-ROM players. The job of the

driver software is to facilitate the use of a CD-ROM drive. Without CDFS being available, it is not possible to use a CD-ROM drive on the Windows operating system.

Ex3 stand for third extended files system and Ex4 stands for the fourth extended file system. Ex3 and Ex4 are Linux file systems. These files systems are not supported on other platforms, like Windows and Mac OS. The maximum file size in Ex3 file system is between 16 GB and 2TB, and in Ex4, it is 16 TB. The maximum volume size in Ex3 is 2 TB to 32 TB. In Ex4, the maximum volume size is 1EB. The maximum number of files that can be stored using the Ex3 system varies. For Ex4 system, this number is 4 billion.

> **Note:** The ExFAT, Ex3/Ex4, and CDFS file systems cannot be covered in the lab environment due to hardware restrictions.

Learning Outcomes

After completing this exercise, you will be able to:

- Create FAT32 and NTFS File Systems
- Configure the Network File System (NFS)
- View the Swap Partition on CentOS
- View the Swap File in Windows 10

Your Devices

You will be using the following device in this lab. Please power on this device.

- **PLABWIN10 -** (Windows 10 - Domain Member)
- **PLABDC01 -** (Windows Server 2016 - Domain Controller)

PLABDC01
Windows Server 2016
192.168.0.1

PLABWIN10
Windows 10
192.168.0.2

Task 1 - Create FAT32 and NTFS File Systems

FAT32 is the oldest file system supported by Windows operating system. Most of the USB flash drives are formatted using FAT32 when they are manufactured. FAT32 is ideal for a device that must be used with a variety of other devices, such as computers, televisions sets, games consoles, etc. However, the FAT32 file system has a few limitations. Firstly, the maximum file size in FAT32 system cannot exceed 4GB. Secondly, a maximum drive size in FAT32 system cannot be more than 8TB.

NTFS is the default file system on the recent version of Windows. NTFS has many advantages over FAT32 and ExFAT systems. Some of these features are access rights, backup copies, encryption, and hard links. The partition containing the Windows operating system must be NTFS.

In this exercise, you will learn to create FAT32 and NTFS file systems.

Step 1

Ensure that the **Disk Management** window is open.

Right-click **New Volume (D:)** and select **Format** from the context menu.
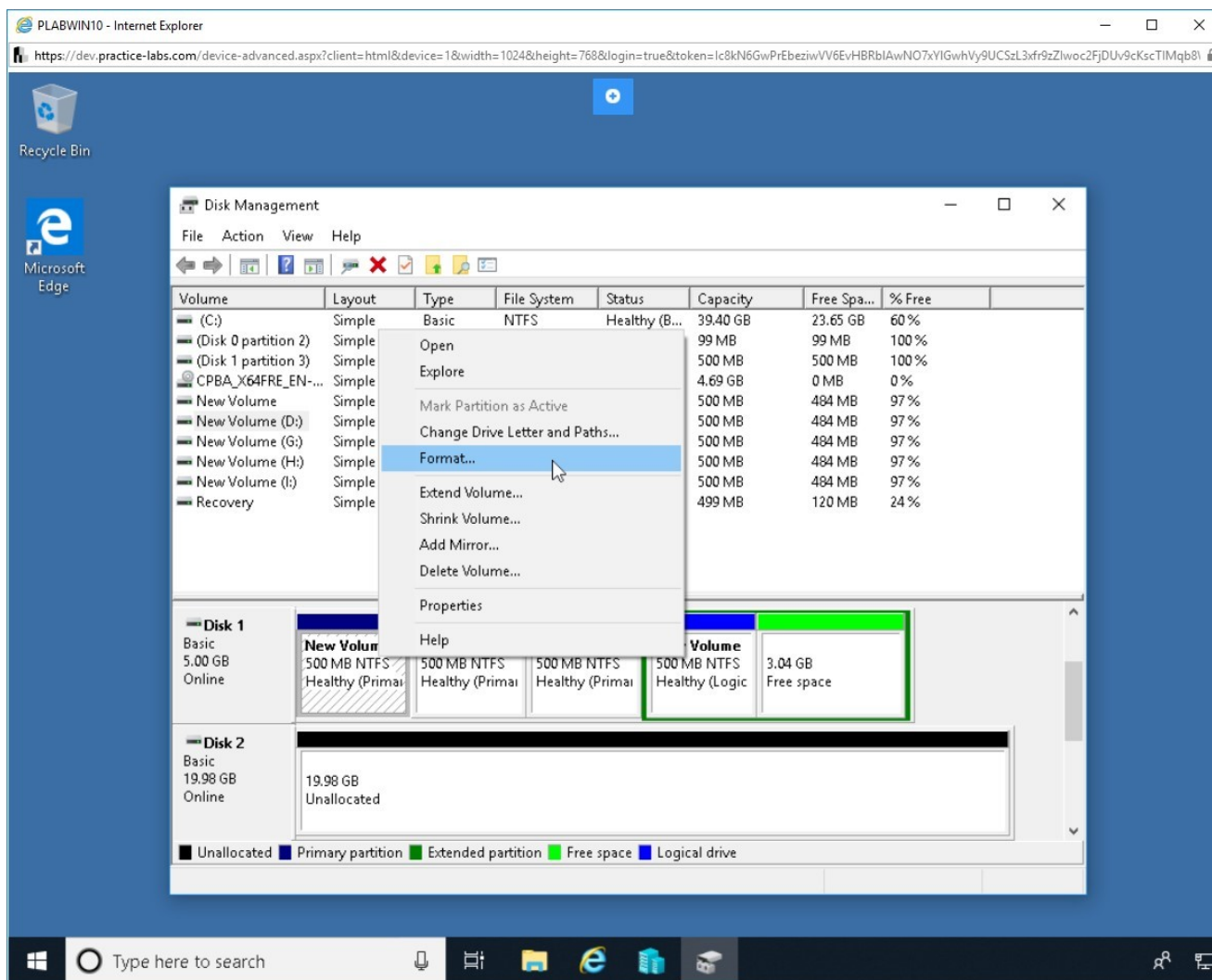
Figure 2.1 Screenshot of PLABWIN10: Selecting Format from the context menu.

Step 2

The **Format D:** dialog box is displayed.

Enter the following name in the **Volume label** text box:

PLAB

From the **File system** drop-down, select **FAT32**.
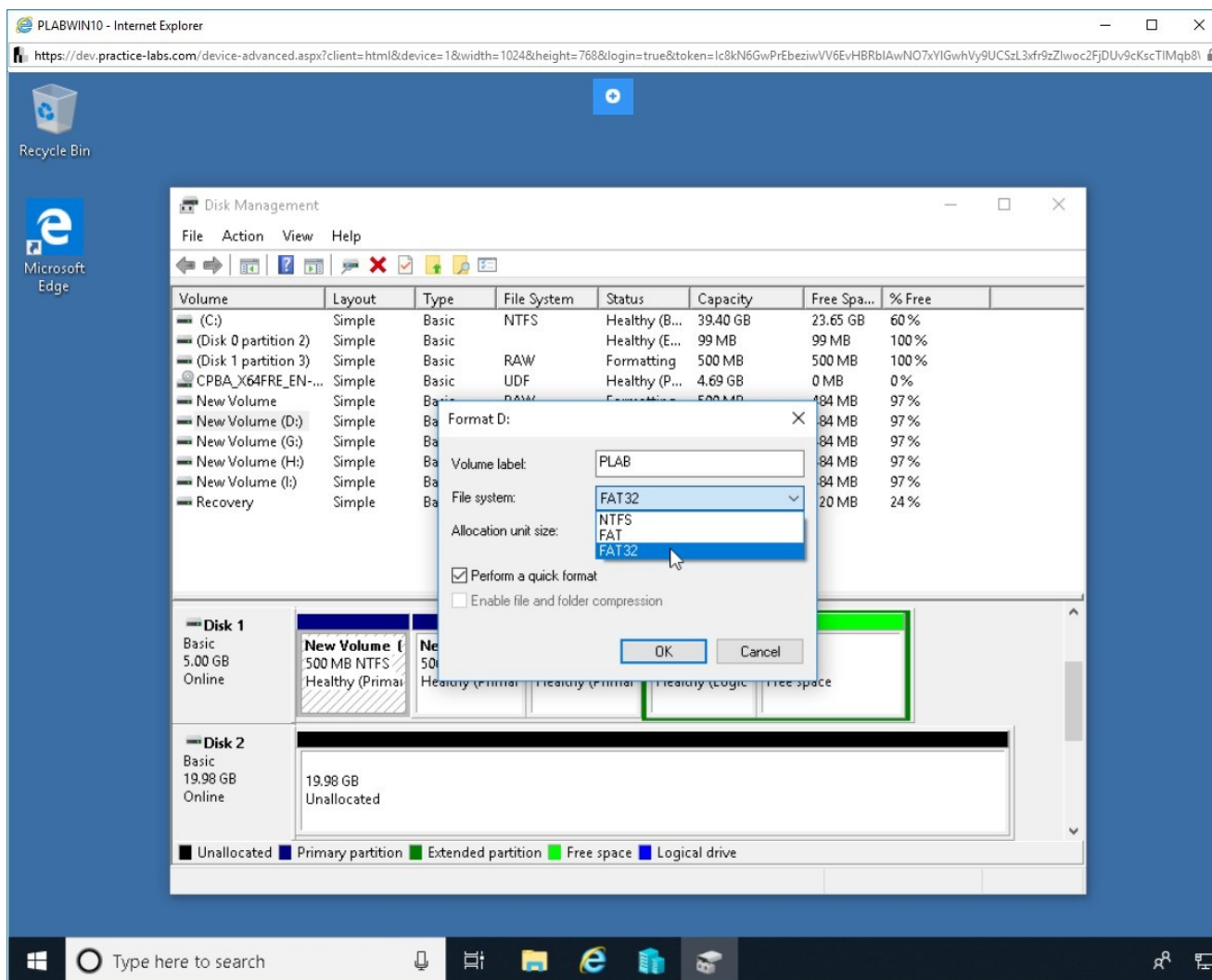
Figure 2.2 Screenshot of PLABWIN10: Showing the setting of a volume label and file system in the Format D: dialog box.

Step 3

Ensure that the **Perform a quick format** checkbox is ticked. Click **OK**.

Note: The Quick Format and Full Format work in the same manner. Both of these format the partition. The only difference is that Quick Format does not check the disk for errors and therefore, formats the partition quickly. On the other hand, the Full Format checks the partition for errors like bad sectors.
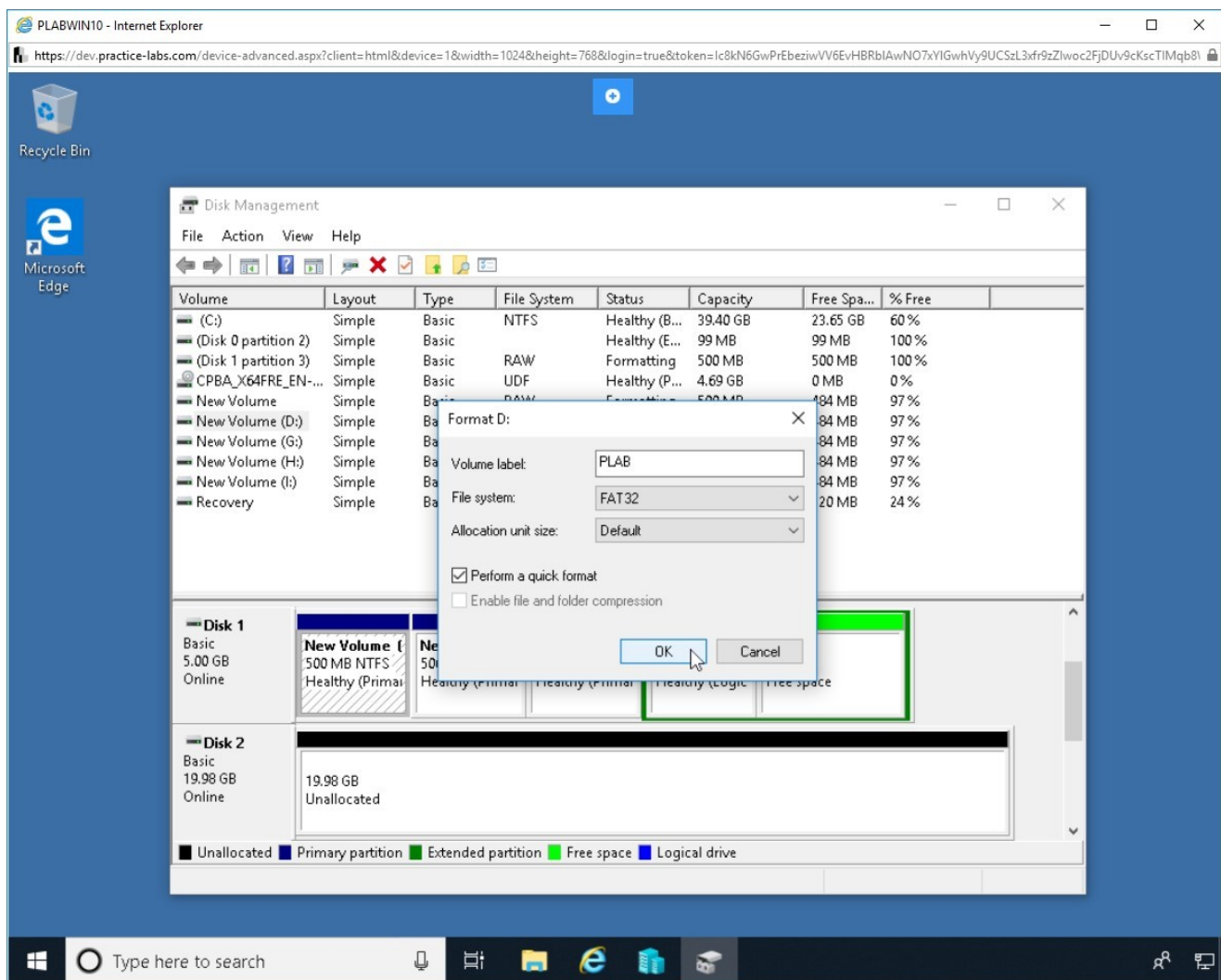
Figure 2.3 Screenshot of PLABWIN10: Clicking OK on the Format D: dialog box.

Step 4

A **Format D:** warning is displayed. Click **OK**.
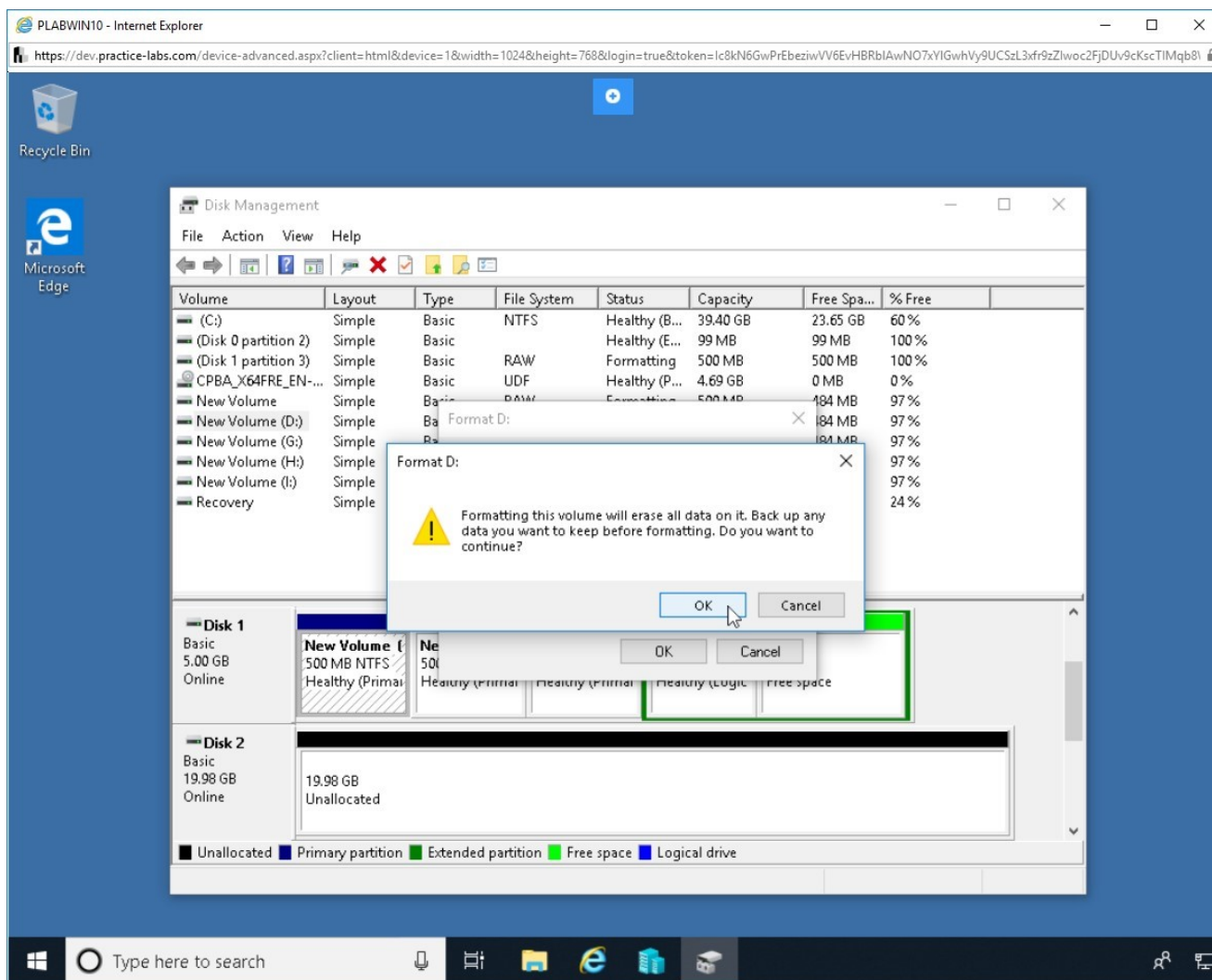
Figure 2.4 Screenshot of PLABWIN10: Displaying a warning in the Format D: dialog box.

Step 5

You are back on the **Disk Management** window. Notice that the partition is now marked as **PLAB**. Also, notice that the other partitions are marked as **NTFS**.
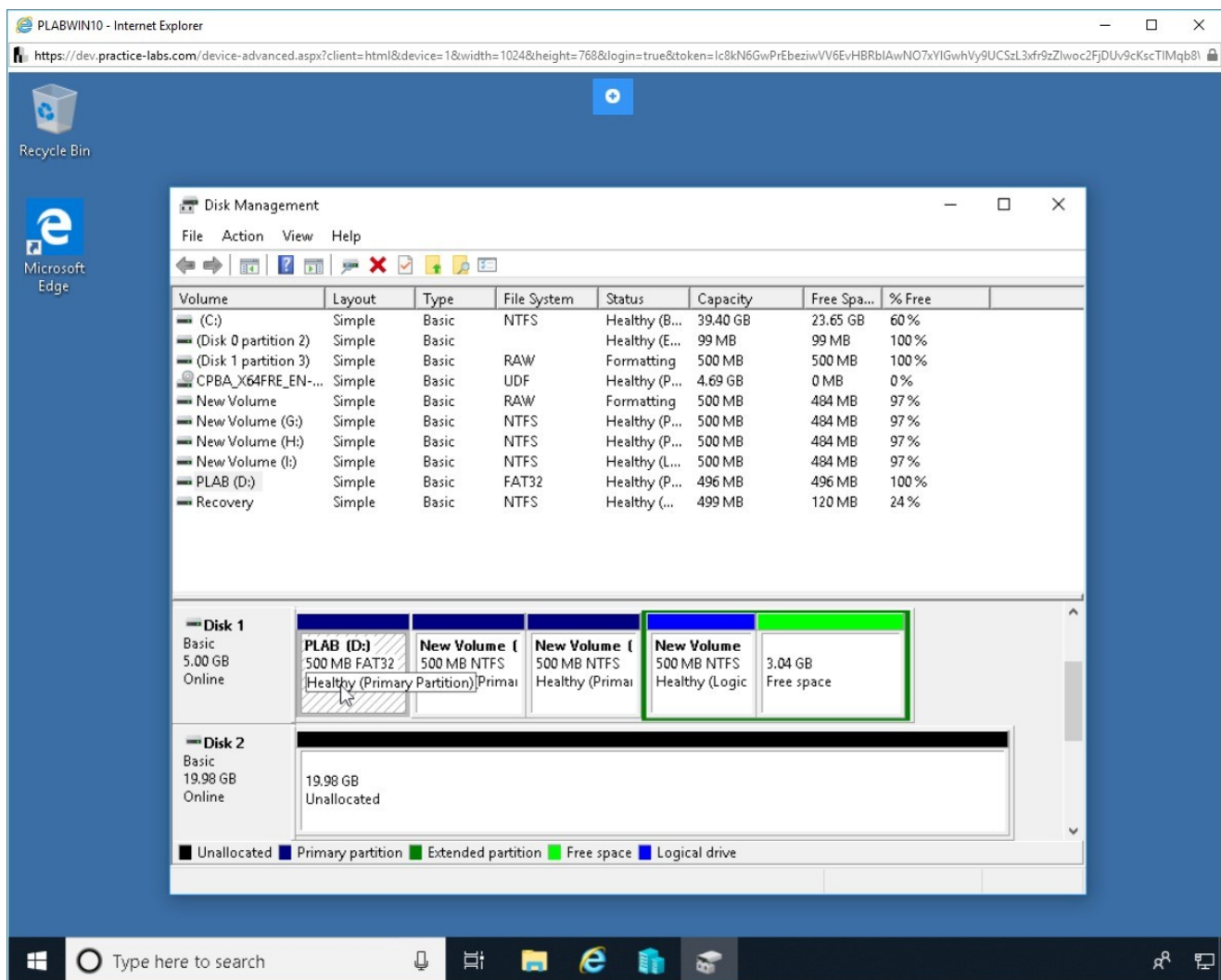
Figure 2.5 Screenshot of PLABWIN10: Showing FAT32 and NTFS partitions in Disk Management.

Minimize the **Disk Management** window.

Step 6

After creating a FAT32 file system on a partition, you can convert it to the NTFS file system.

In the **Type here to search** text box, type the following command:

```
Cmd
```

Click **Command Prompt**.
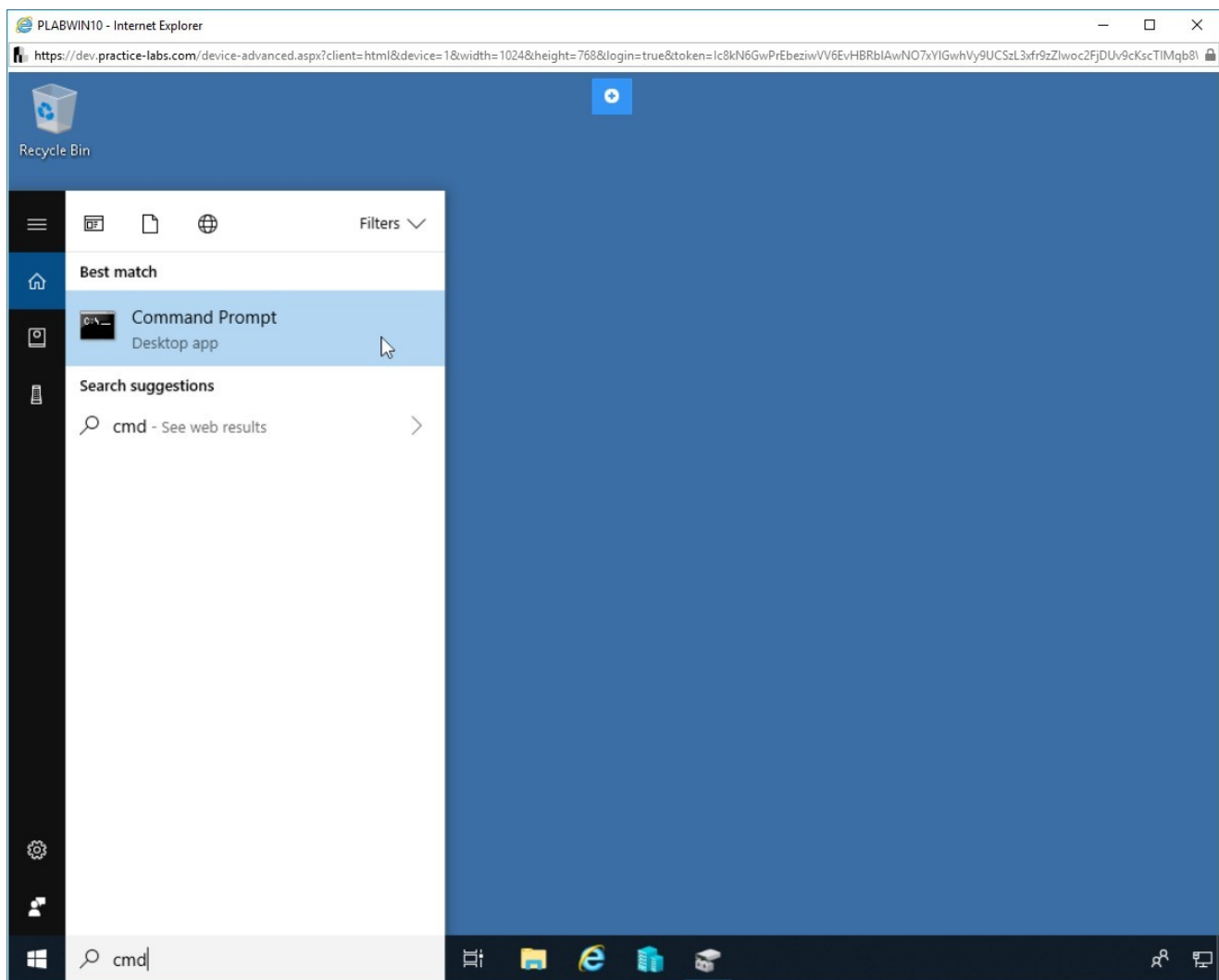
Figure 2.6 Screenshot of PLABWIN10: Command Prompt is shown in the search results.

Step 7

The **Administrator: Command Prompt** window is displayed.

Type the following command:

```
convert d: /FS:NTFS
```

Press **Enter**.

> **Alert:** You can convert a FAT32 file system to NTFS file system, but you cannot reverse it. You will need to format the partition.
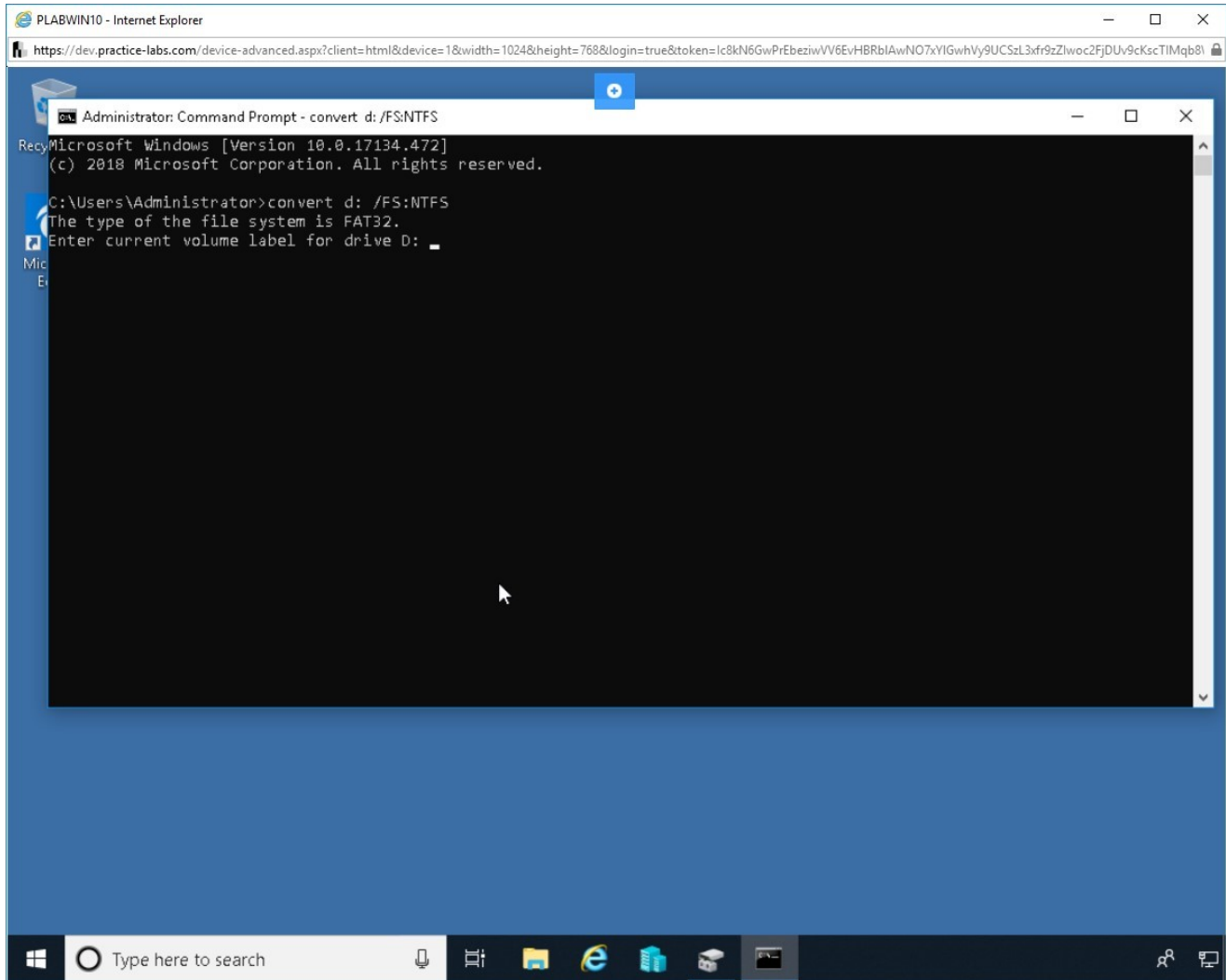
Figure 2.7 Screenshot of PLABWIN10: Converting the FAT32 partition to NTFS partition using the convert command.
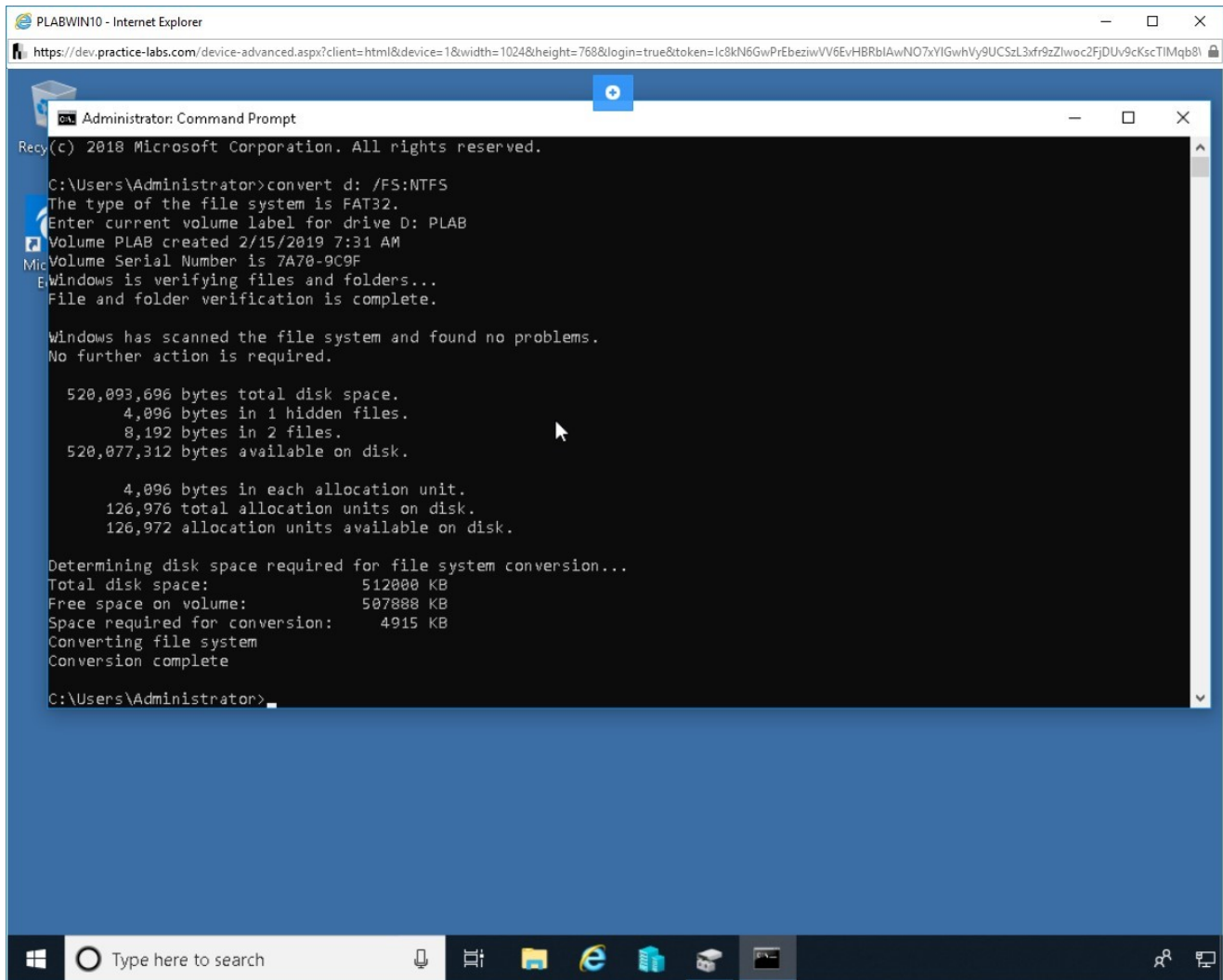
Step 8

You will be prompted to enter the volume label.

Type the following:

PLAB

Press **Enter**. Conversion is quick in this case.

Figure 2.8 Screenshot of PLABWIN10: Entering the name of the partition to convert and then showing the conversion.

Close the command prompt window.

Step 9

Restore the **Disk Management** window. The **D** drive displays **NTFS** instead of **FAT32**.
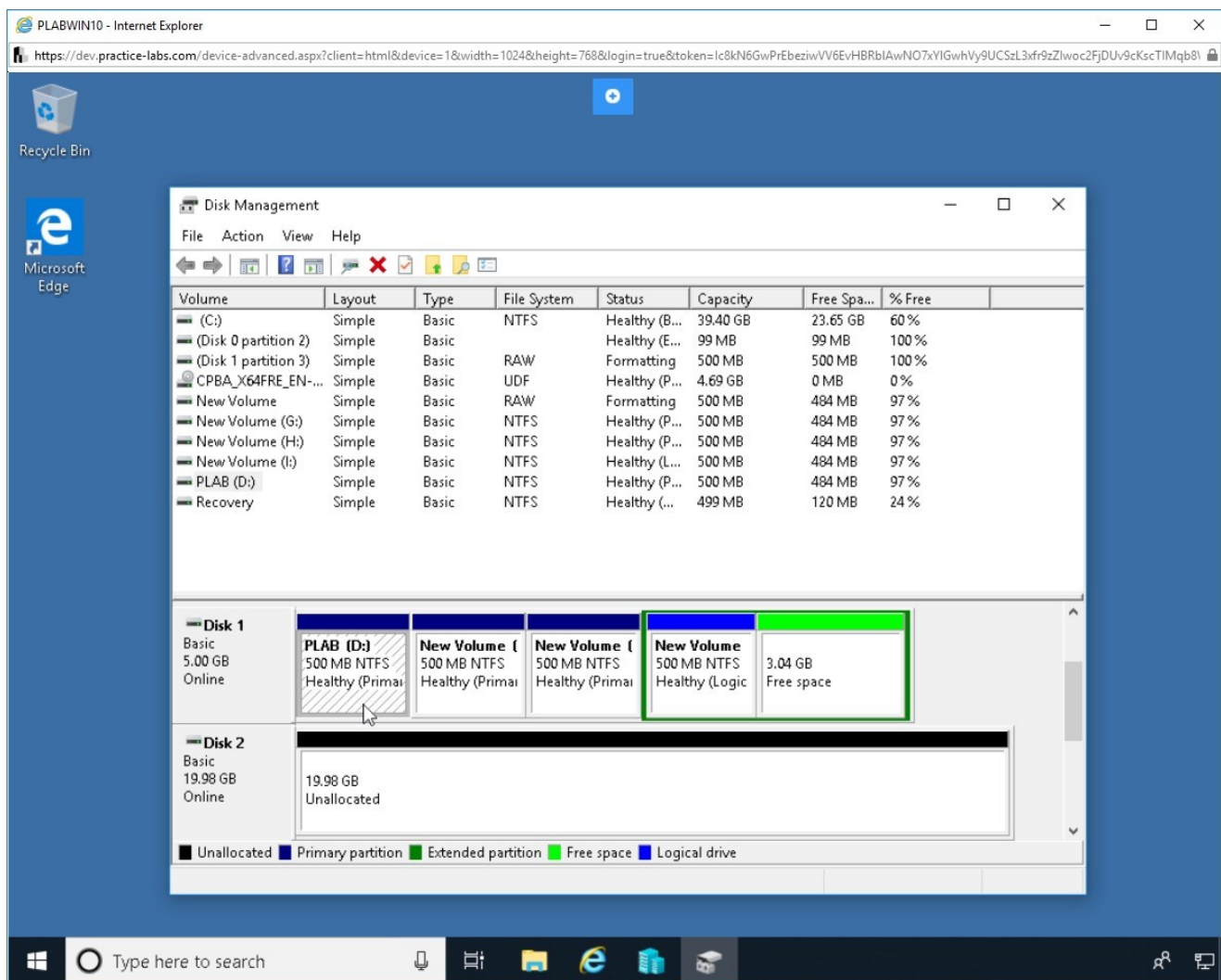
Figure 2.9 Screenshot of PLABWIN10: Showing the converted partition as NTFS partition.

Task 2- Configure the Network File System (NFS)

NFS stands for Network File System. NFS makes it possible to share/transfer files from computers running Windows server and Linux operating system by using the NFS protocol. By using NFS, it is possible to access a remote location and use files stored at that location. NFS uses a methodology known as Remote Procedure Call (RPC) to facilitate file transfer. NFS now allows parallel access across multiple servers.

In this task, you will configure NFS.

Step 1

Connect to **PLABDC01**.

Click the **Start** charm and then select **Server Manager**.
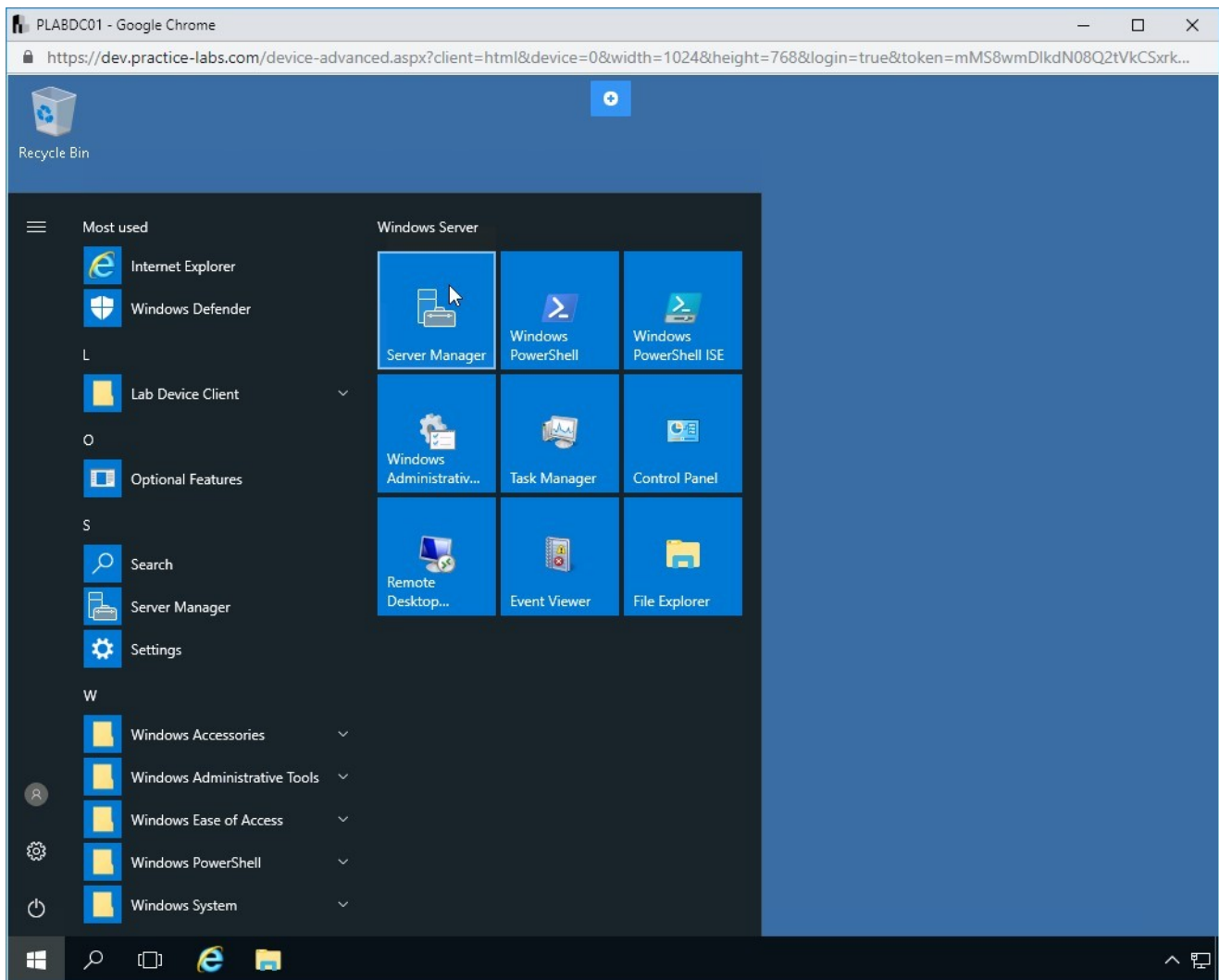
Figure 2.10 Screenshot of PLABDC01: Selecting Server Manager from the Start menu.

Step 2

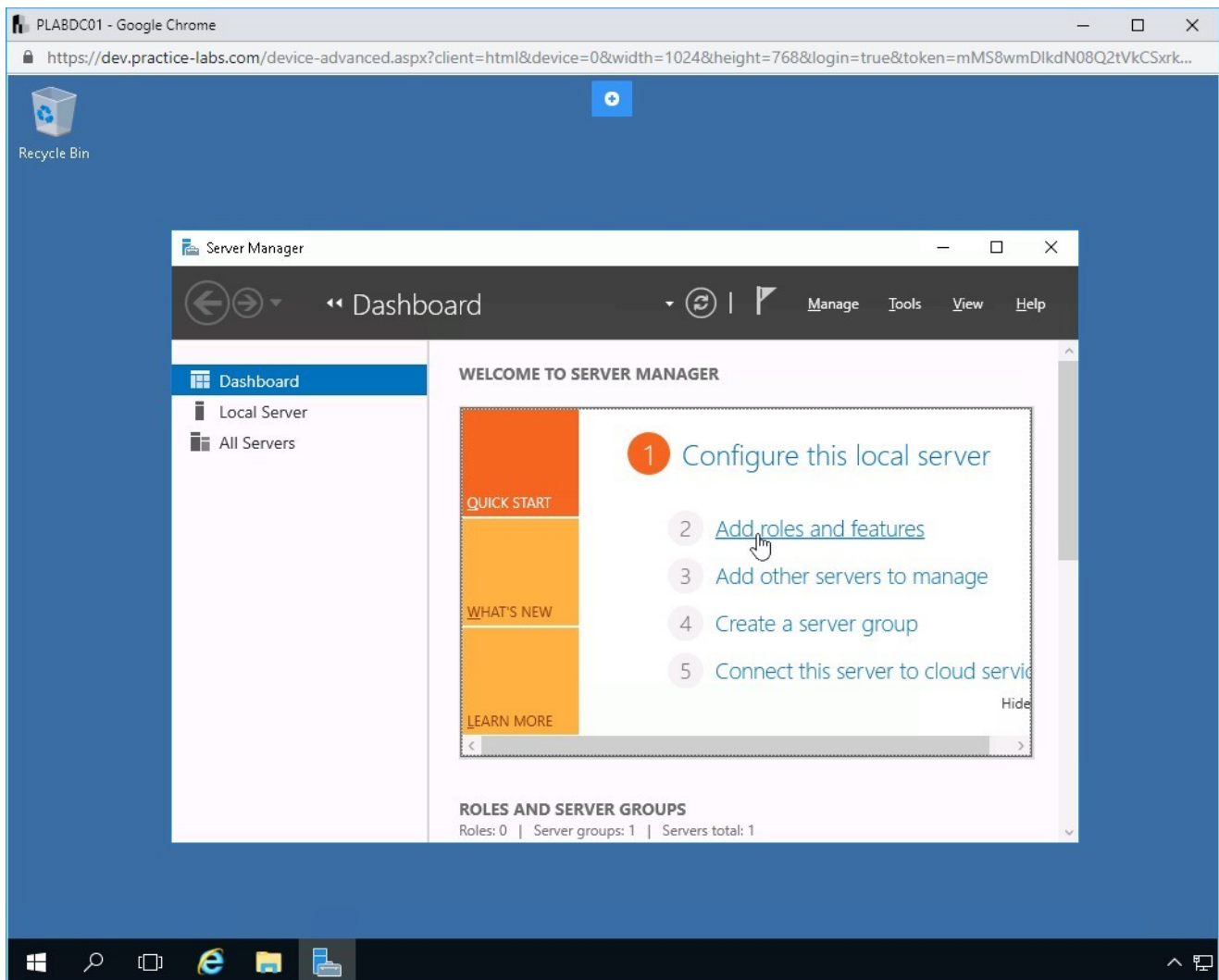The **Server Manager** window is displayed. Click the **Add roles and features** link.

Figure 2.11 Screenshot of PLABWIN10: Clicking the Add roles and features link.

Step 3

The **Add Roles and Features Wizard** is displayed.
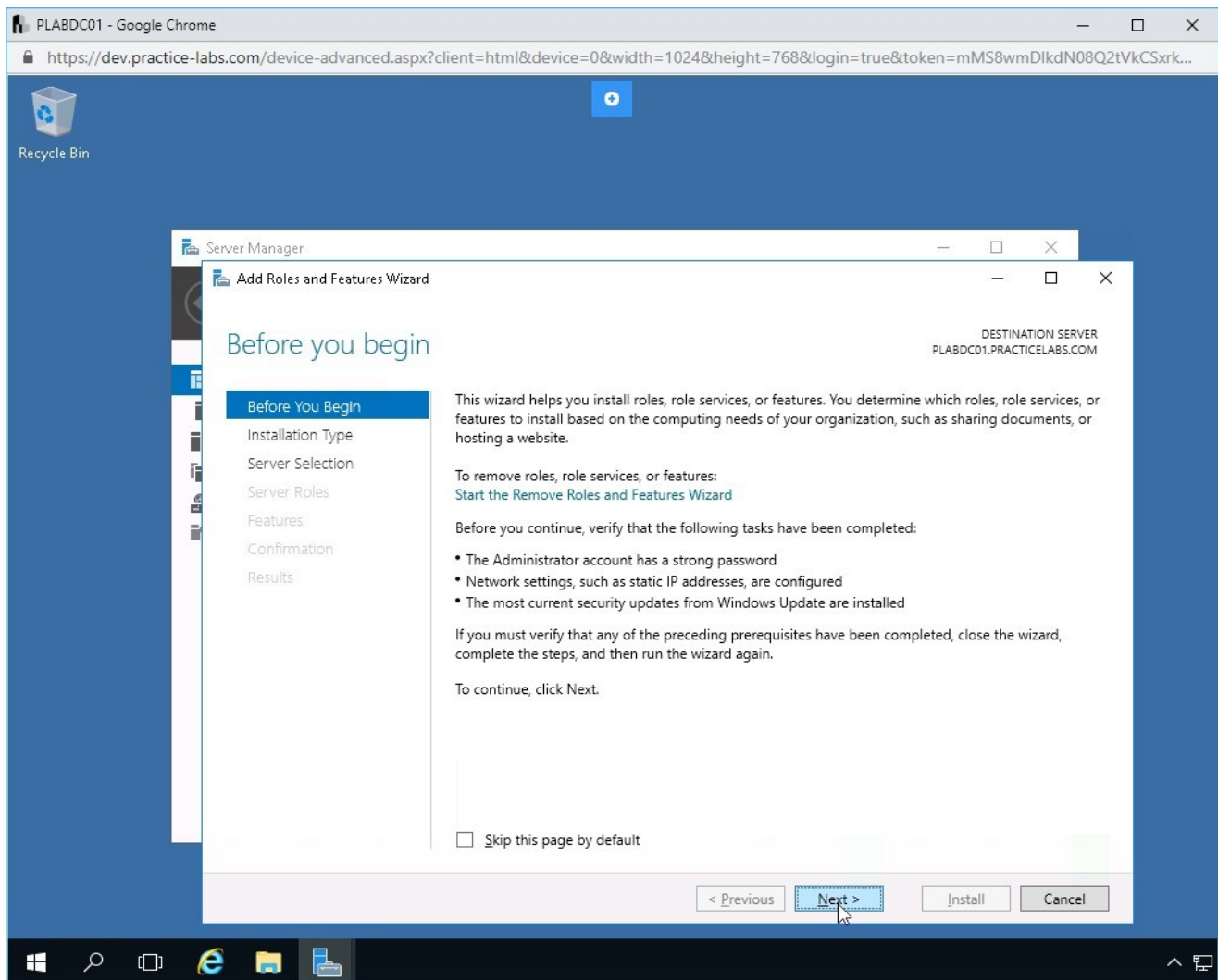
On the **Before you begin** page, click **Next**.

Figure 2.12 Screenshot of PLABDC01: Showing the Before you begin page in the Add Roles and Features Wizard.

Step 4

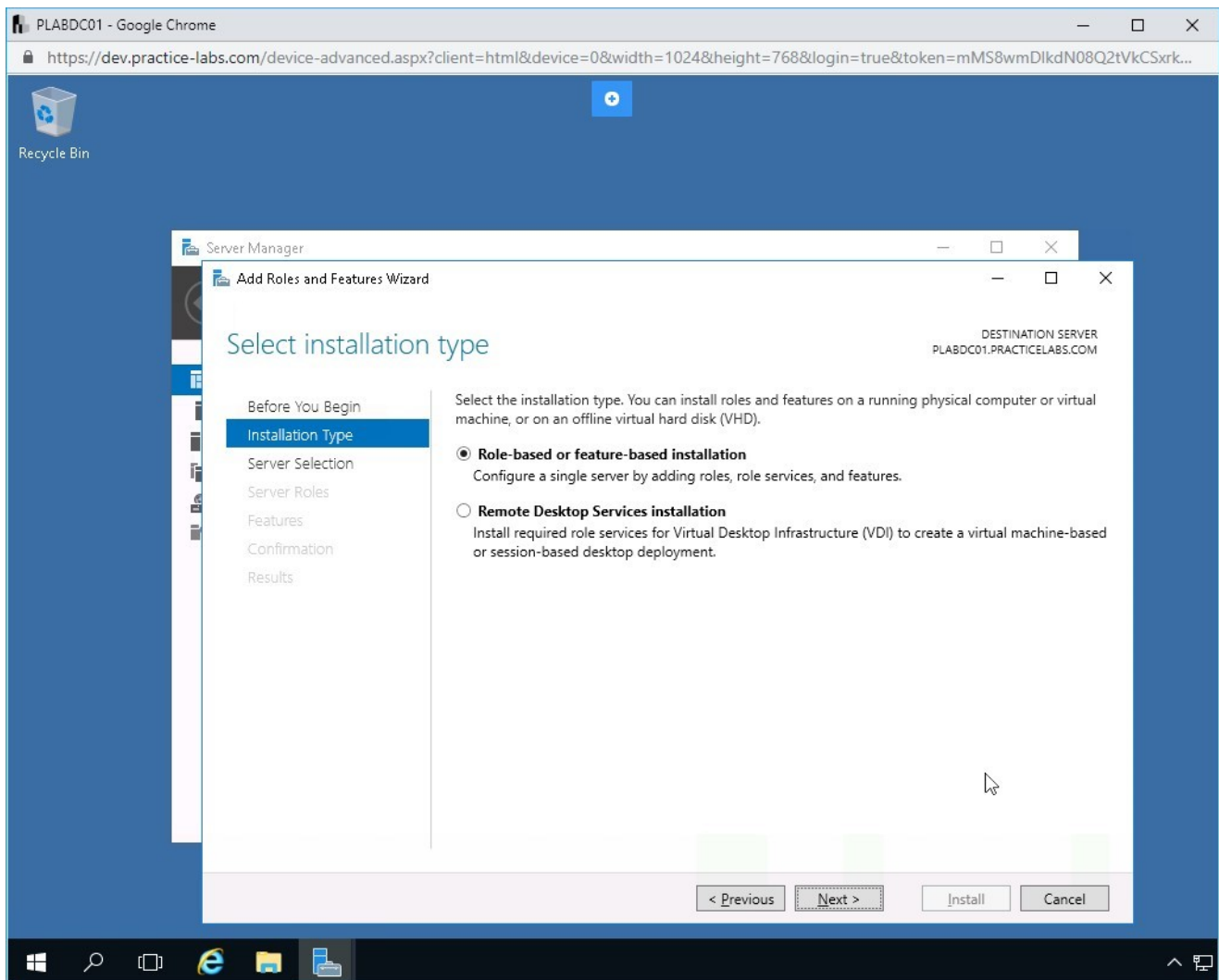On the **Select installation type** page, keep the default selection and click **Next**.

Figure 2.13 Screenshot of PLABDC01: Showing the selection of Role-based or feature-based installation option on the Select installation type page.

Step 5

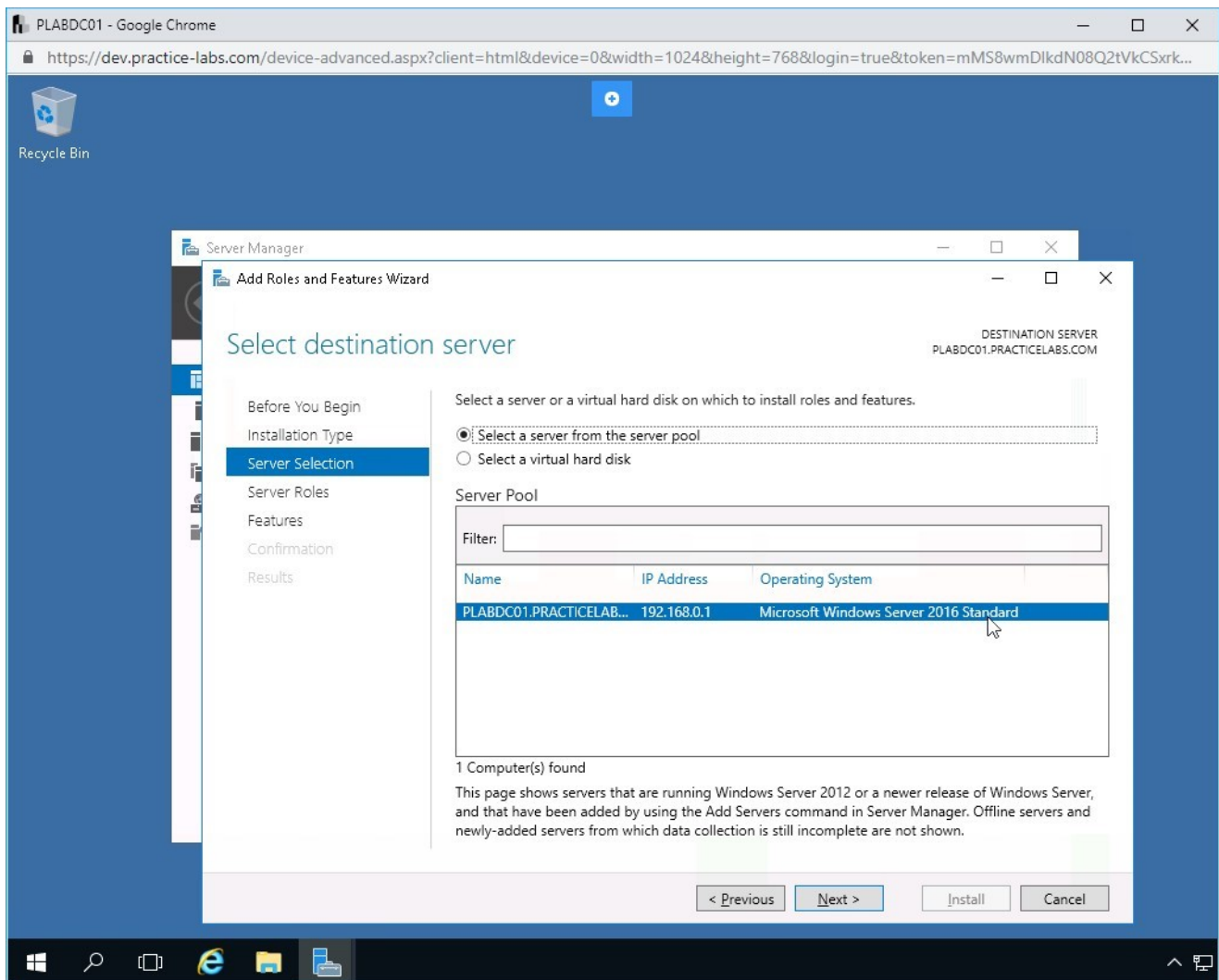On the **Select destination server** page, keep the default selection and click **Next**.

Figure 2.14 Screenshot of PLABDC01: Showing the selection of the server name on the Select destination server page.

Step 6

On the **Select server roles** page, expand **File and Storage Services** and then expand **Files and iSCSI Services**. Tick **Server for NFS**.
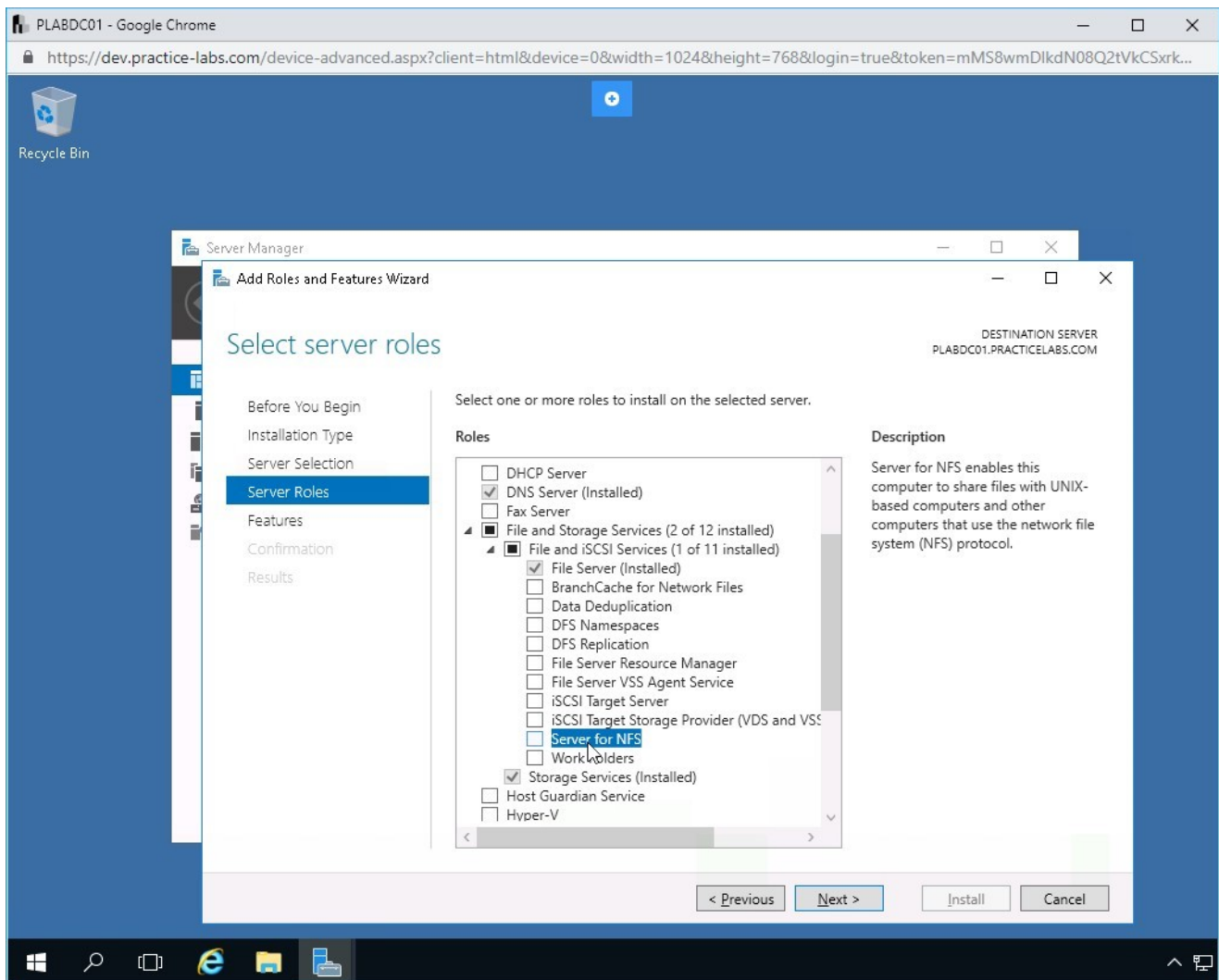
Figure 2.15 Screenshot of PLABDC01: Selecting the Server for NFS option on the Select server roles option.

Step 7

The **Add Roles and Features Wizard** dialog box is displayed.
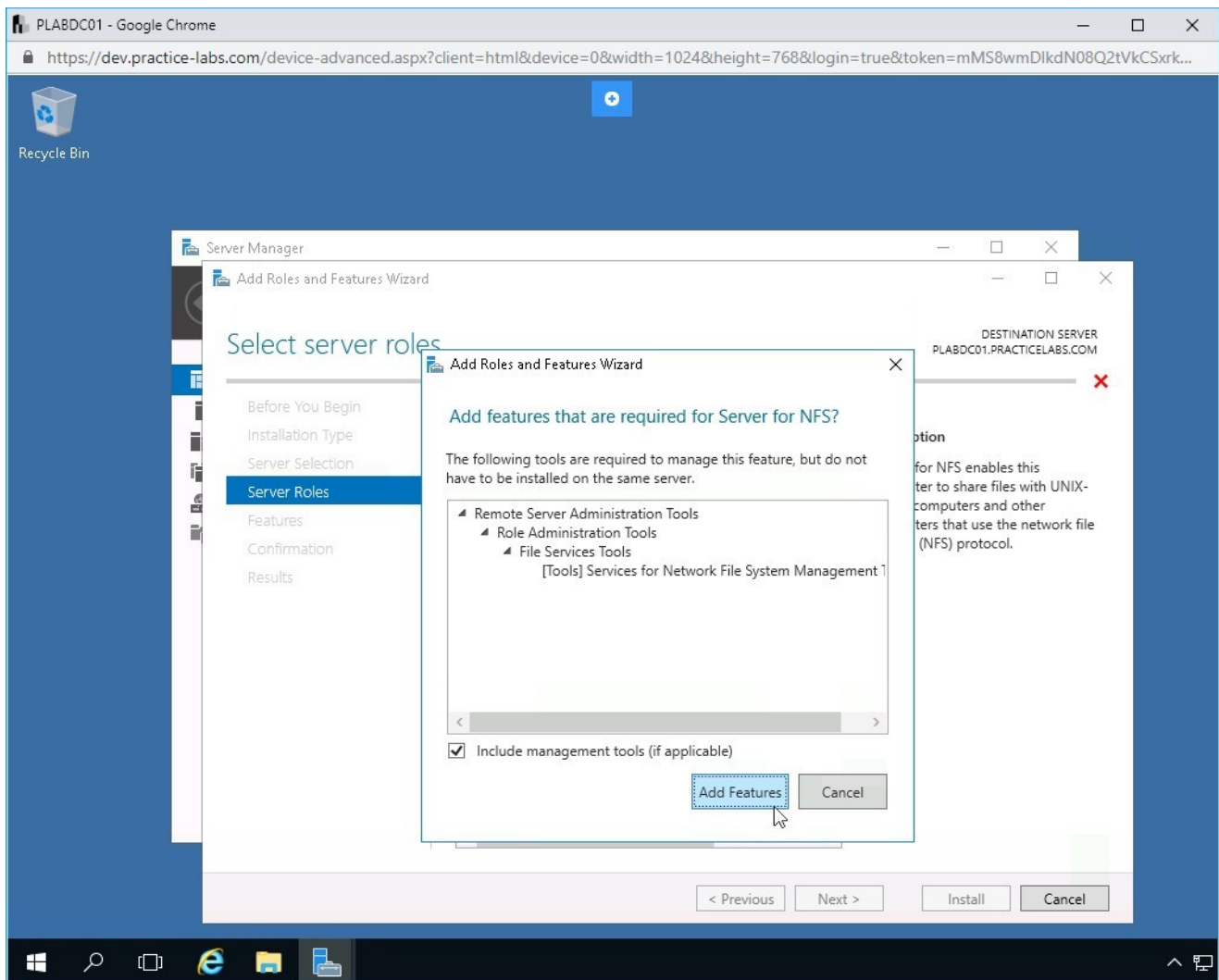
Click **Add Features**.

Figure 2.16 Screenshot of PLABDC01: Clicking the Add Features button the Add Roles and Features Wizard dialog box.

Step 8

On the **Select server roles** page, notice that **Server for NFS** is now selected. Click **Next**.
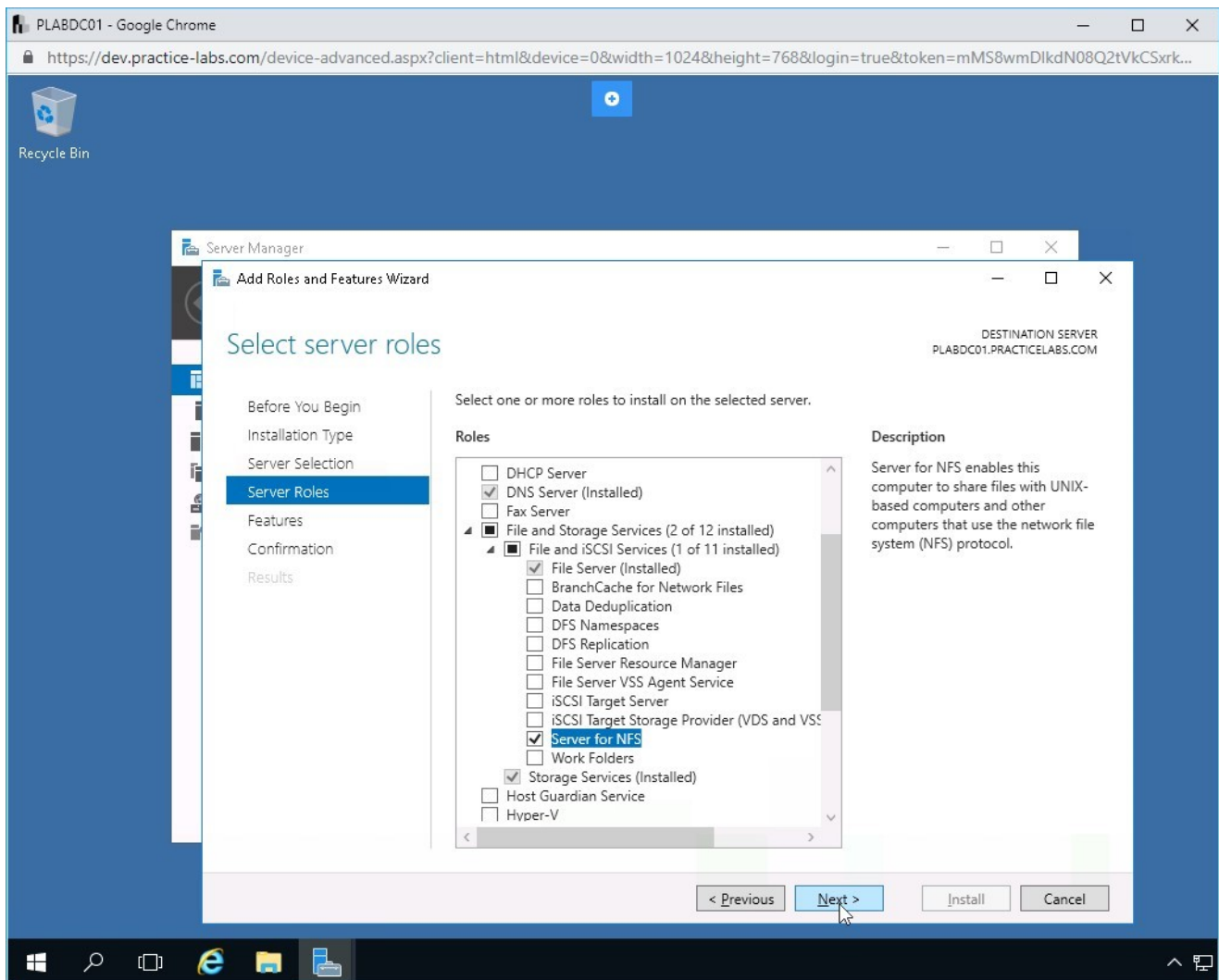
Figure 2.17 Screenshot of PLABDC01: Showing the selection for Server for NFS option on the Select server roles page.

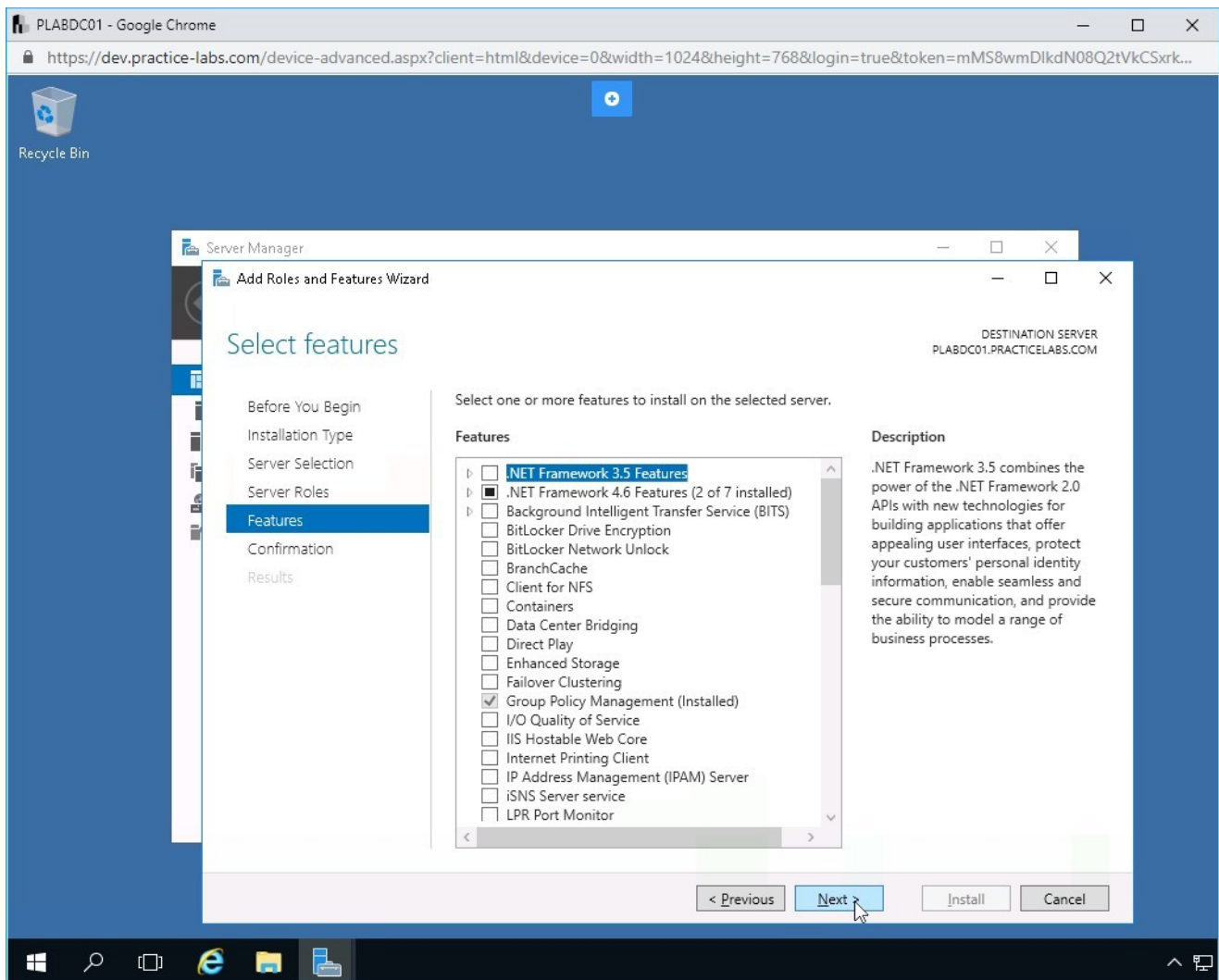# Step 9

On the **Select features** page, click **Next**.

Figure 2.18 Screenshot of PLABDC01: Clicking Next on the Select features page.

Step 10

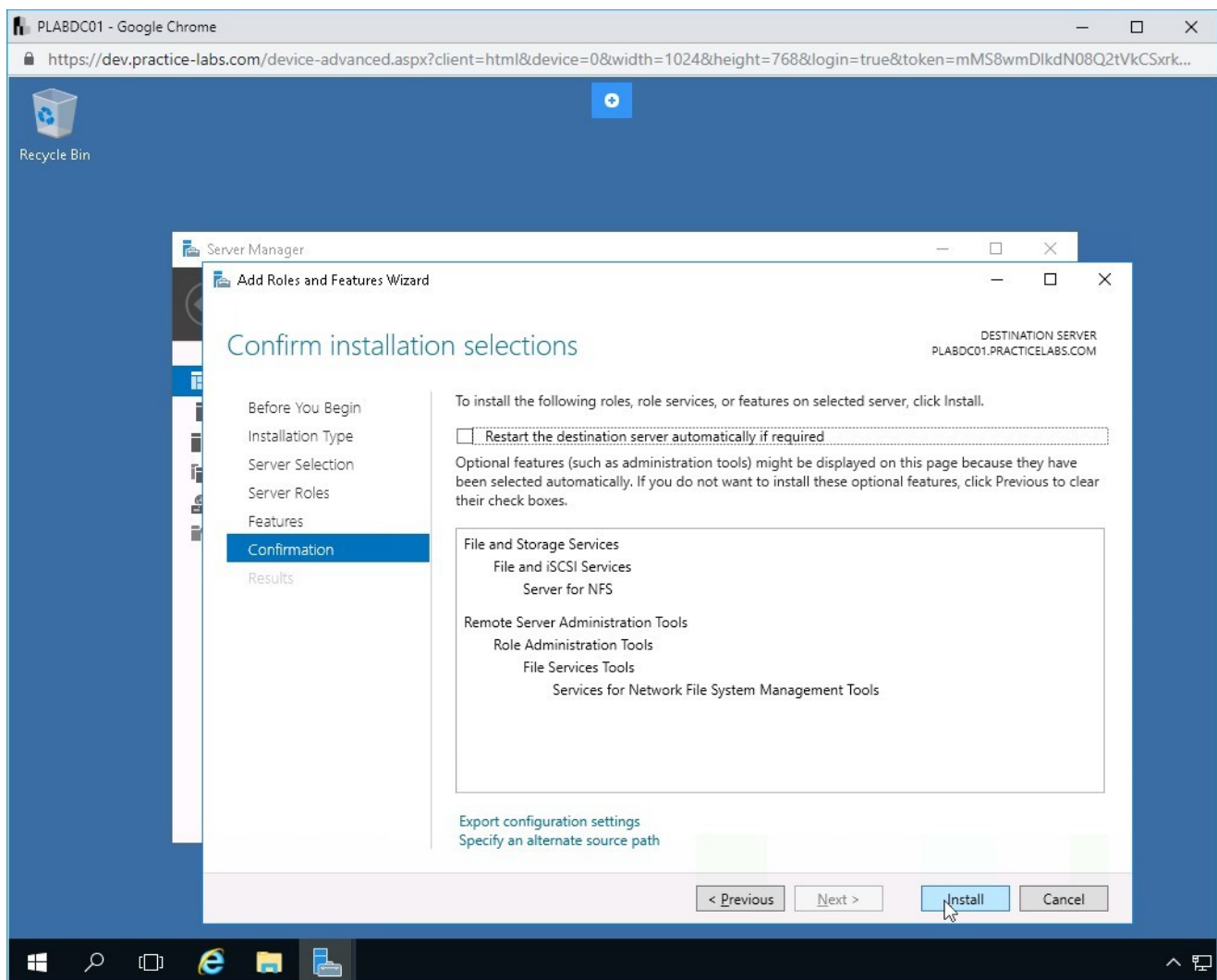On the **Confirm installation selections** page, click **Install**.

Figure 2.19 Screenshot of PLABDC01: Clicking Install on the Confirm installation selections page.

Step 11

On the **Installation progress** page, the feature installation progress is displayed.
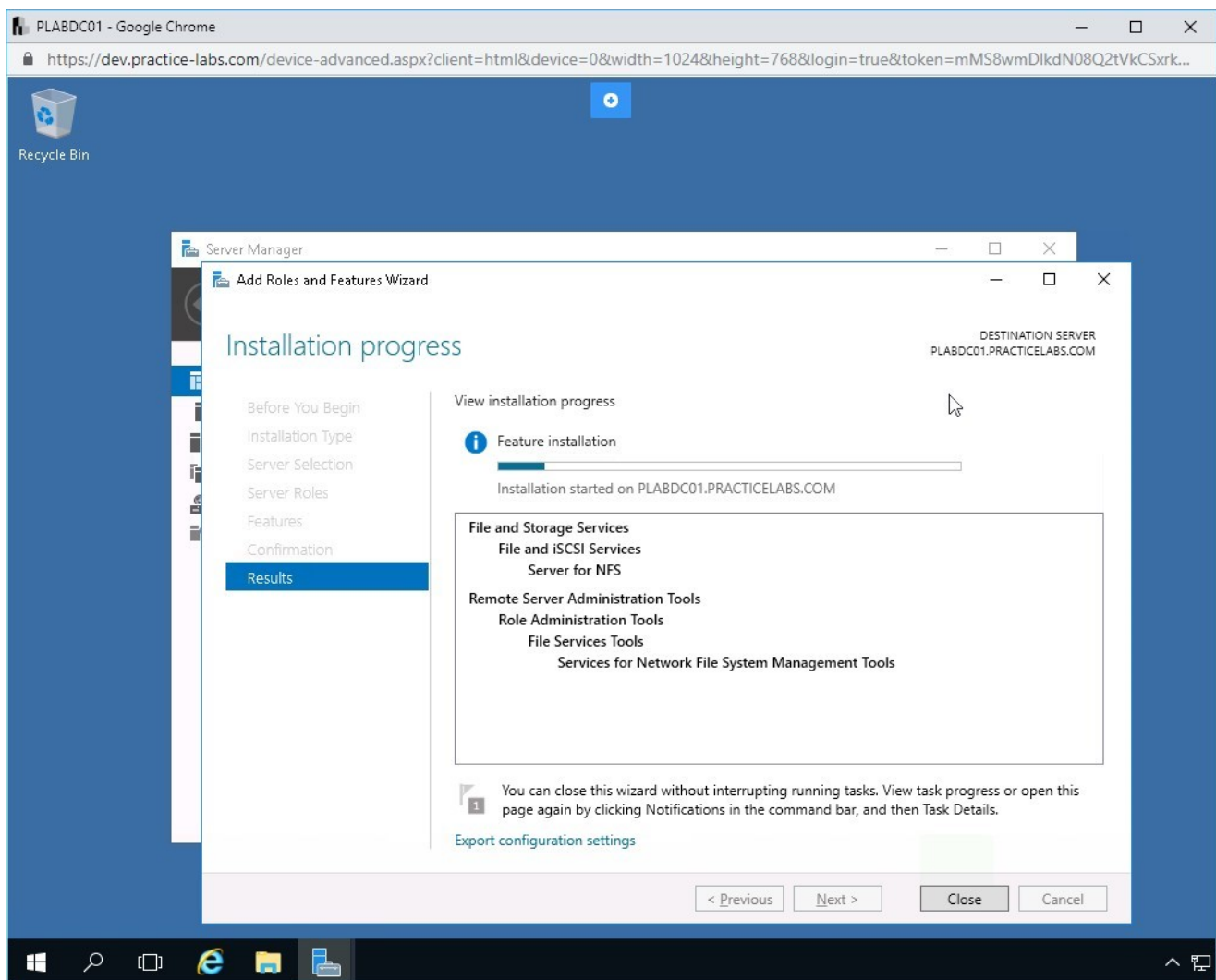
Figure 2.20 Screenshot of PLABDC01: Showing the installation on the Installation progress page.

Step 12

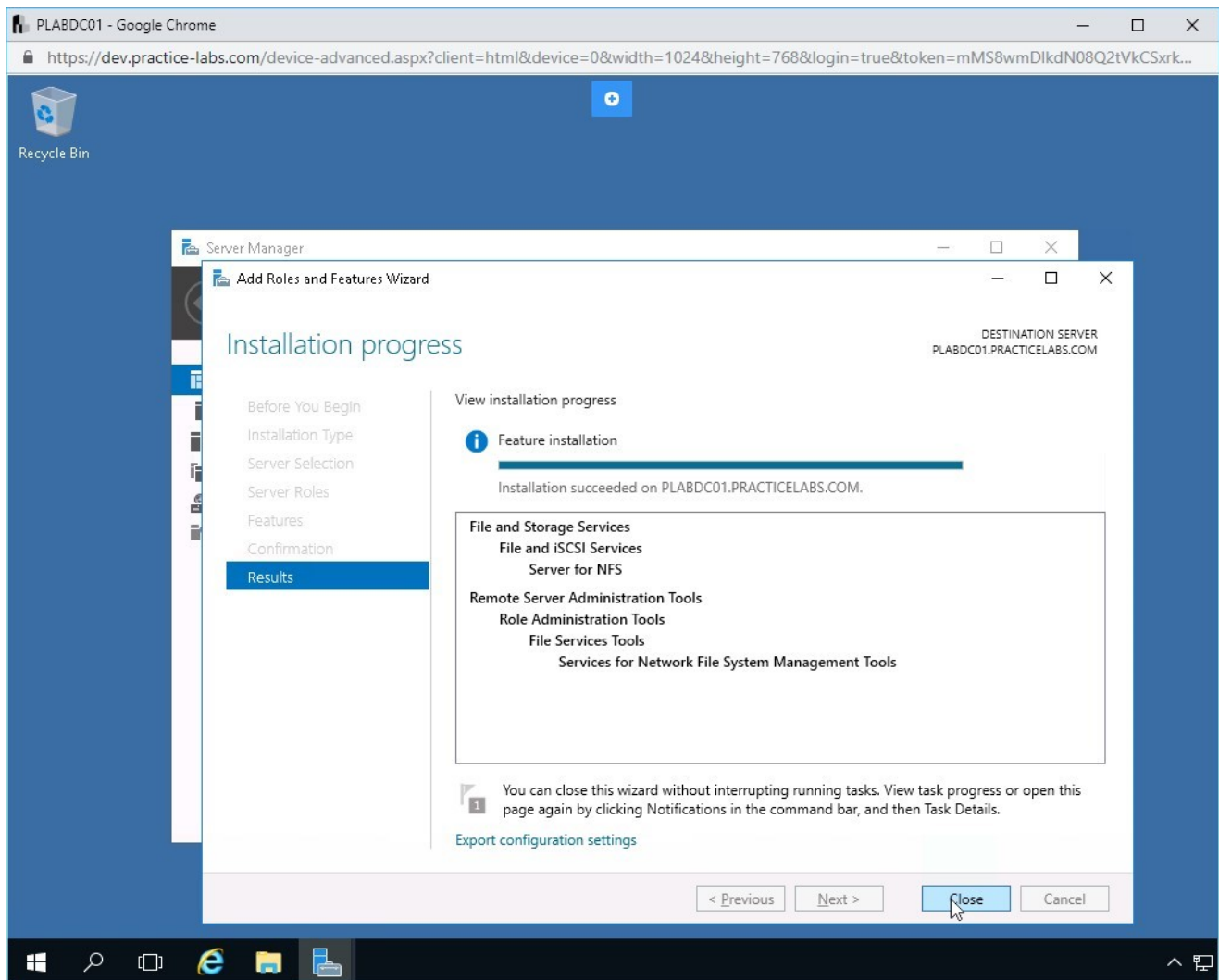On the **Installation progress** page, after the installation is completed, click **Close**.

Figure 2.21 Screenshot of PLABDC01: Clicking Close on the Installation progress page.

Step 13

You are back on the **Server Manager** window.

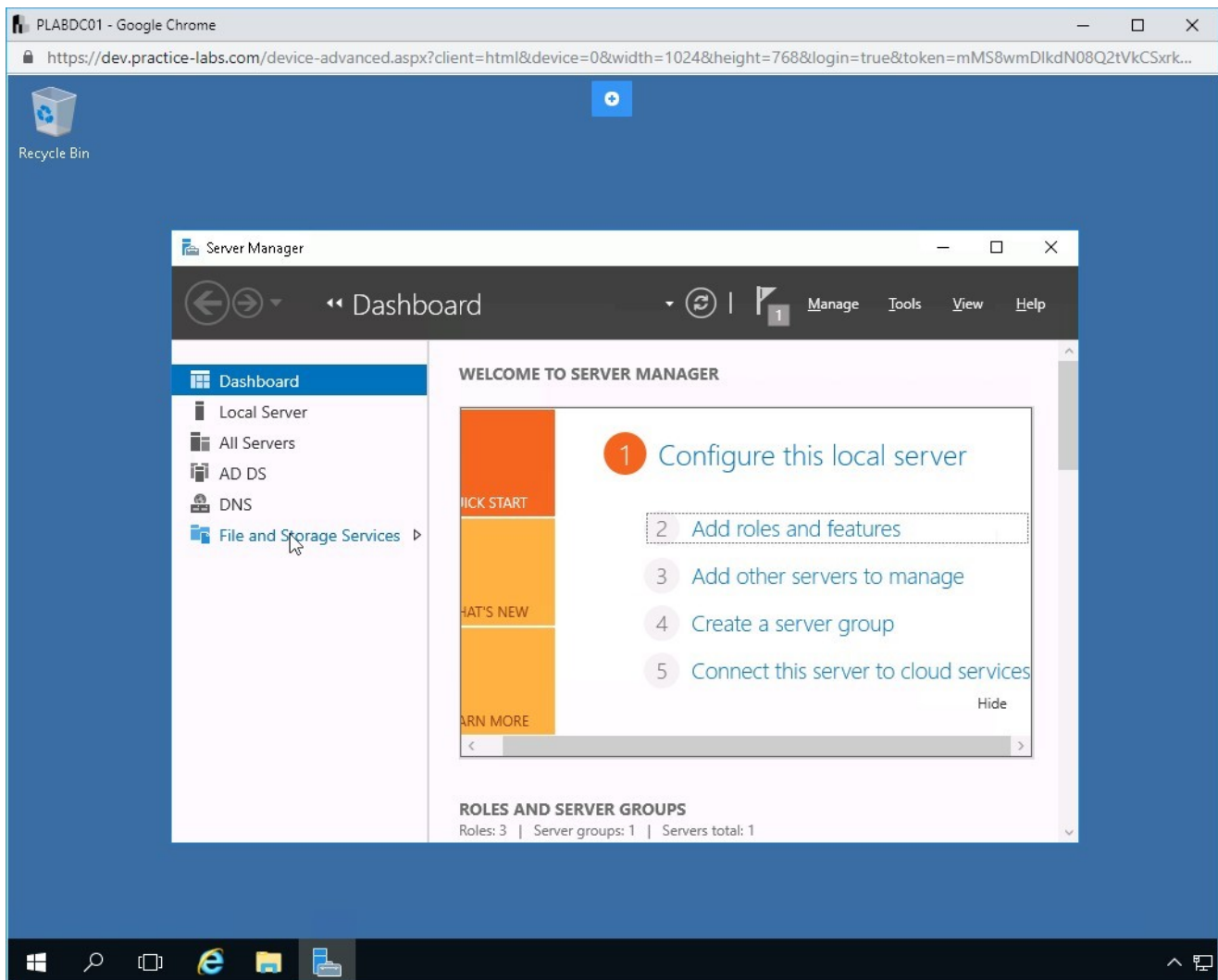Click the **File and Storage services** link in the left pane.

Figure 2.22 Screenshot of PLABDC01: Clicking the File and Storage Service link in the left pane of Server Manager.

Step 14

Ensure that **PLABDC01** is selected in the right pane.
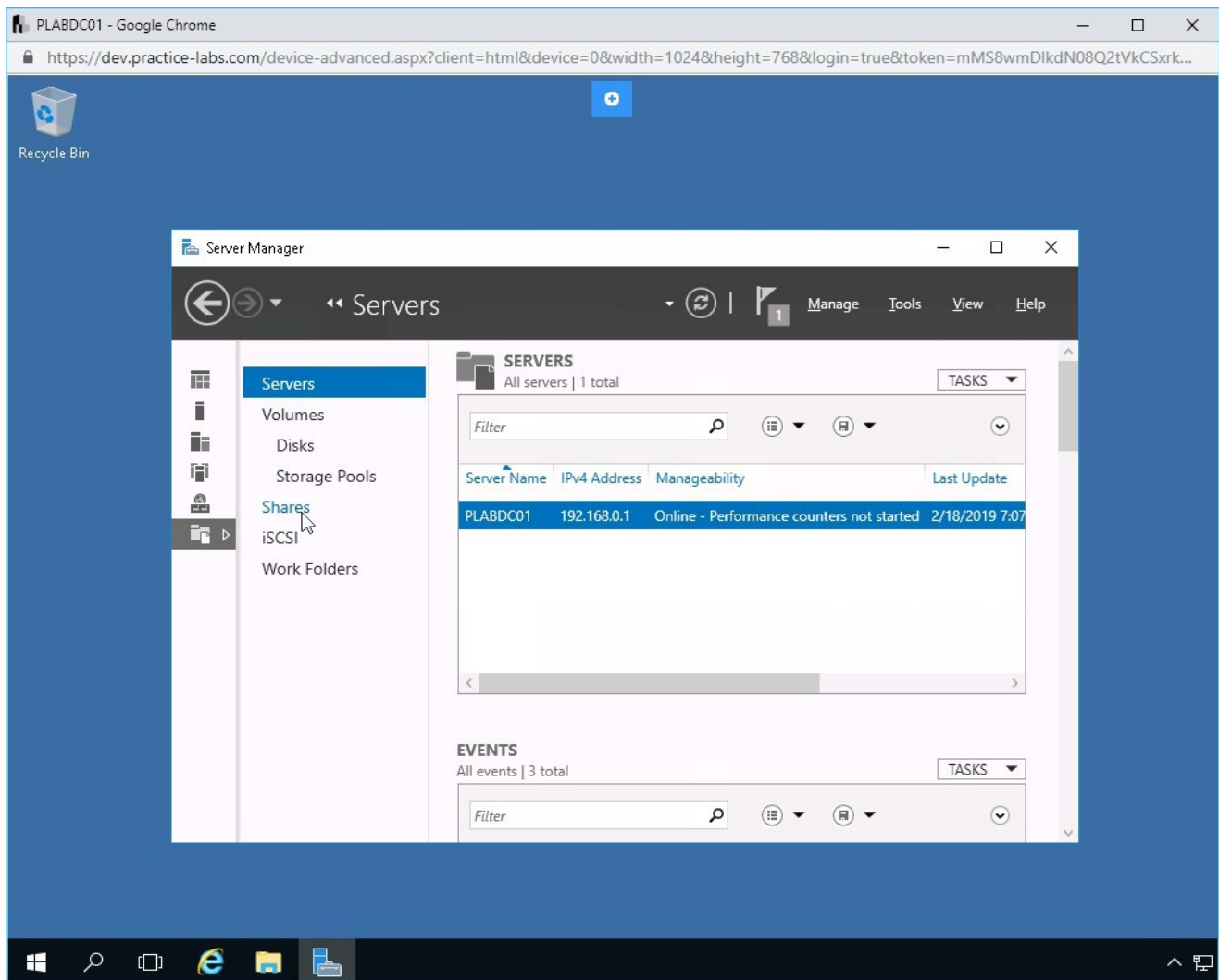
From the sliding menu, click **Shares**.

Figure 2.23 Screenshot of PLABDC01: Clicking the Shares option in the menu.

Step 15

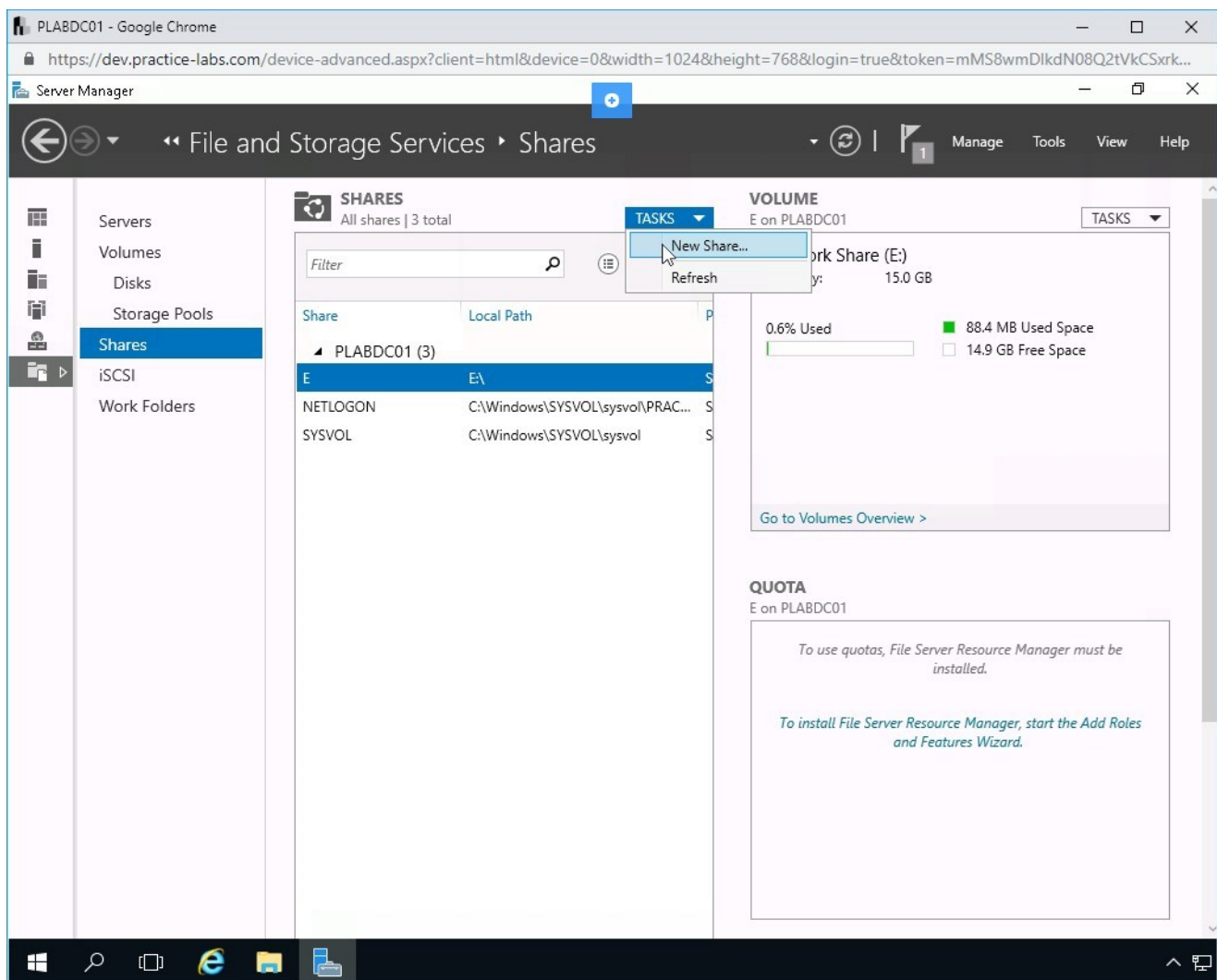Click the **TASKS** drop-down menu and then select **New Share**.

Figure 2.24 Screenshot of PLABDC01: Selecting the New Share option from the TASKS drop-down.

Step 16

The **New Share Wizard** is displayed. Select **SMB share - Quick** in the **File share profile** list box.
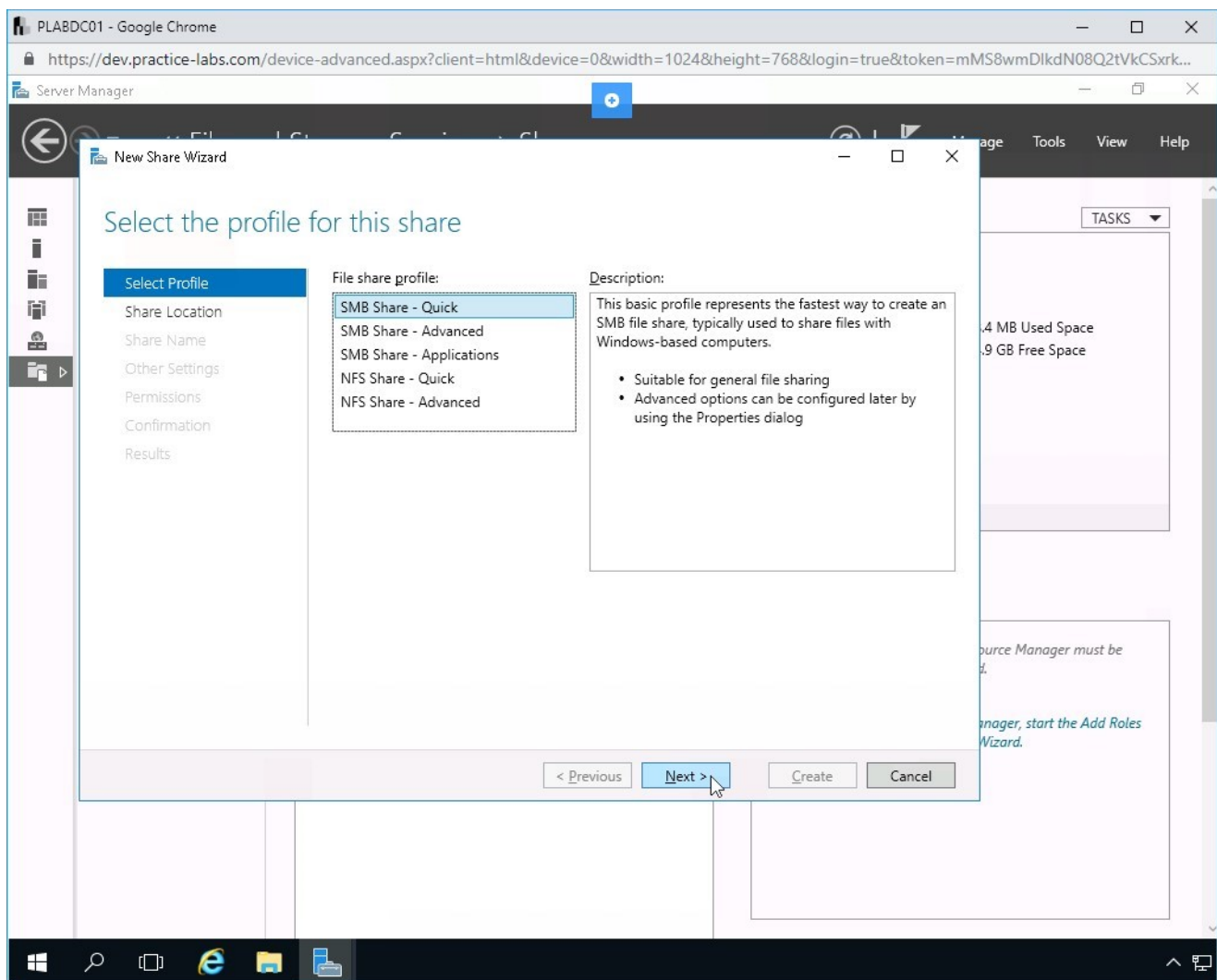
Then, click **Next**.

Figure 2.25 Screenshot of PLABDC01: Selecting the SMB Share - Quick option on the Select the profile for this share page.

Step 17

On the **Select the server and path for this share** page, in the **Select by volume** section, select **E:**.
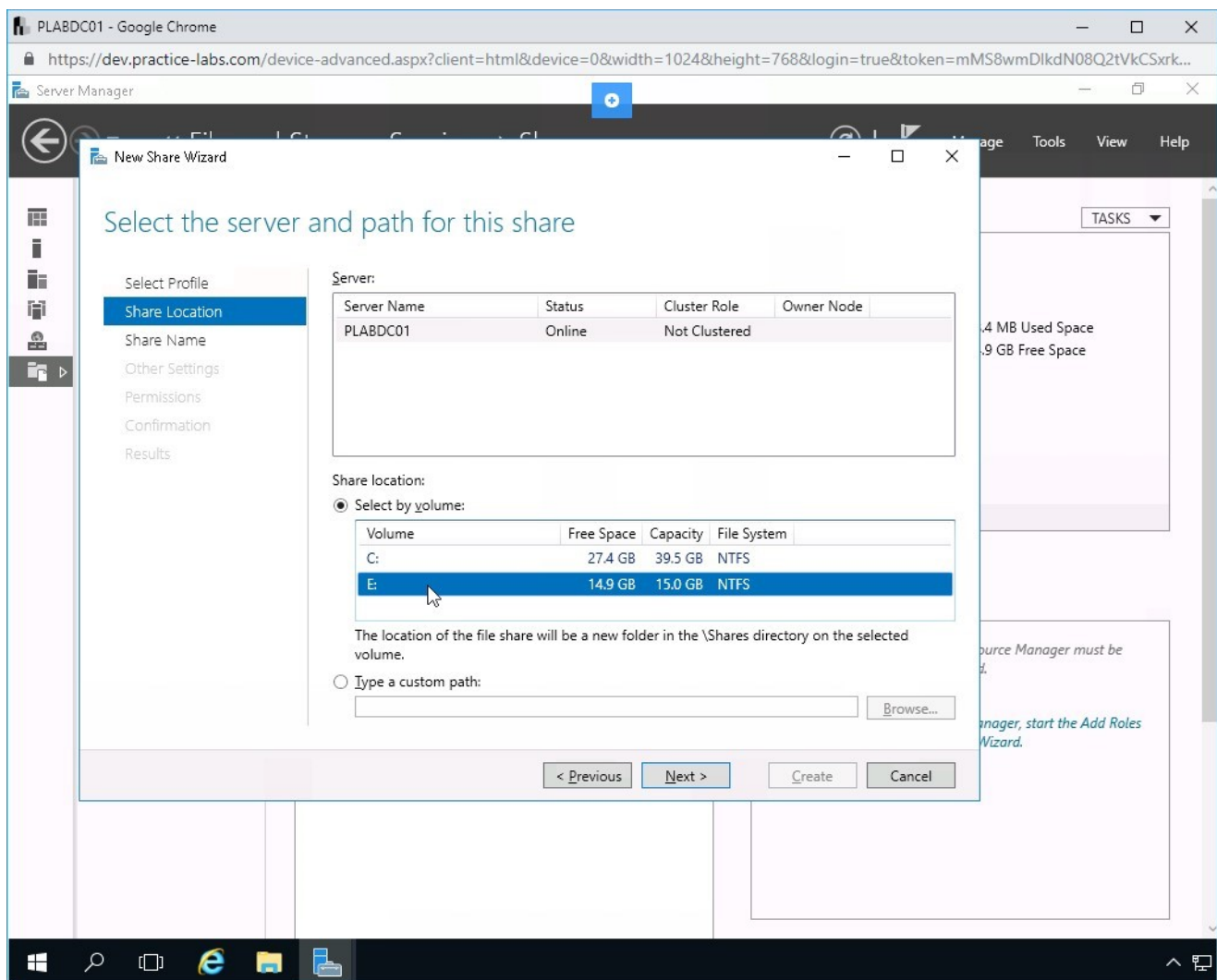
Click **Next**.

Figure 2.26 Screenshot of PLABDC01: Selecting the E drive on the Select the server and path for this share page.

Step 18

On the **Specify share name** page, type the following in the **Share name** text box:
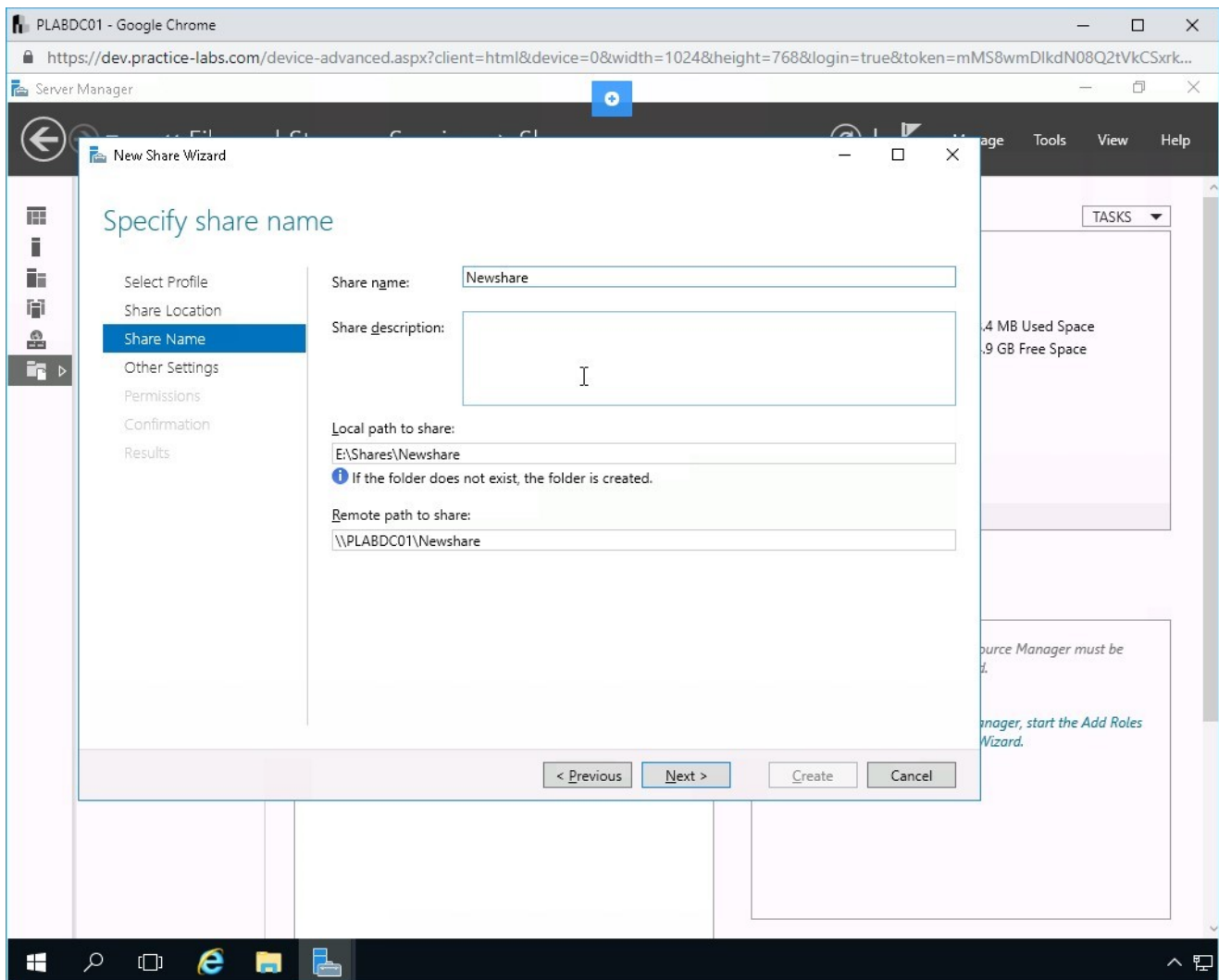
Newshare

Click **Next**.

Figure 2.27 Screenshot of PLABDC01: Specifying the name in the Share name text box on the Specify share name page.

Step 19

On the **Configure share settings** page, tick **Enable access-based enumeration**.
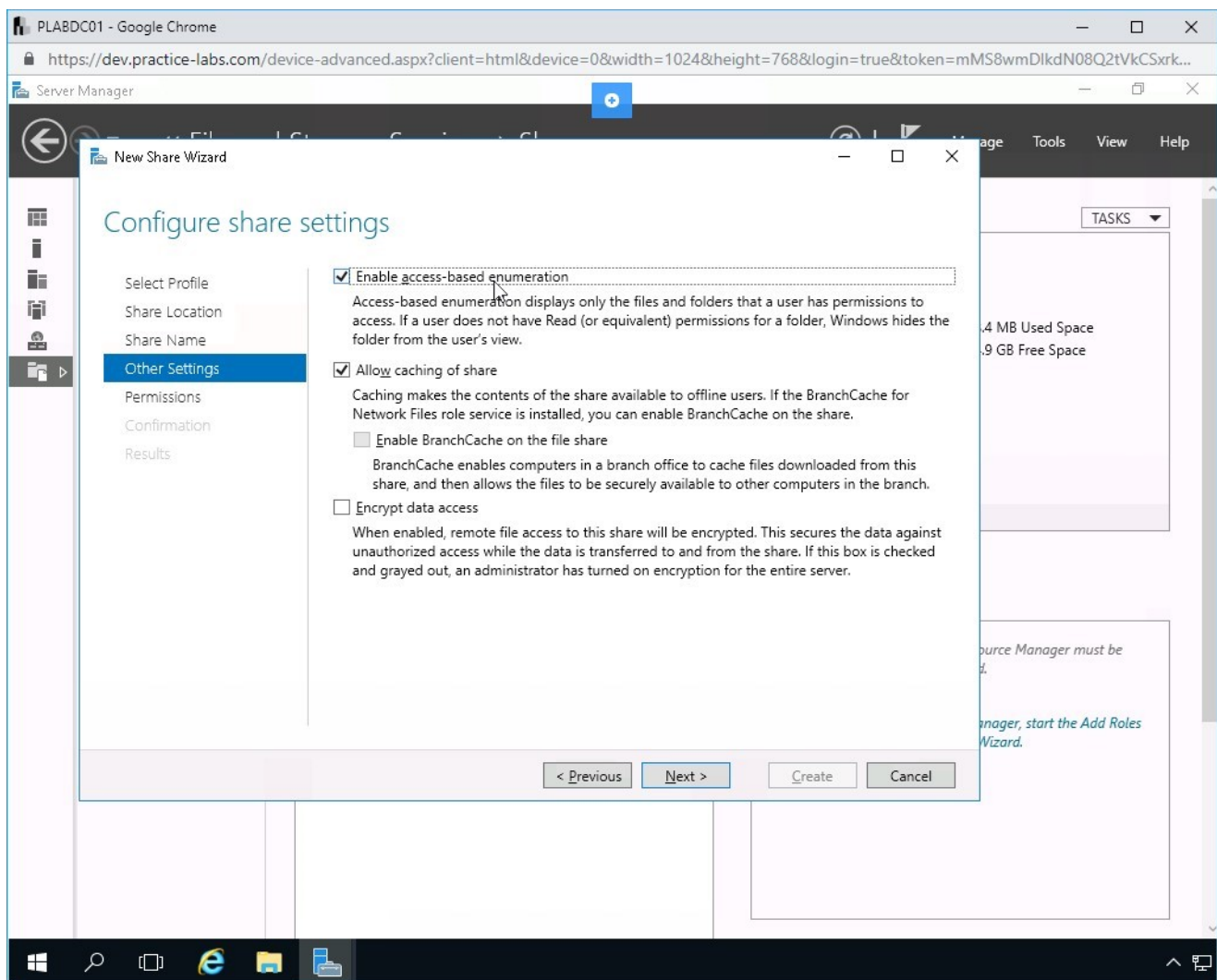
Click **Next**.

Figure 2.28 Screenshot of PLABDC01: Selecting the Enable access-based enumeration on the Configure share settings page.

Step 20

On the **Specify permissions to control access** page, select **BUILTIN\Users** (with the access **Read & execu**...).
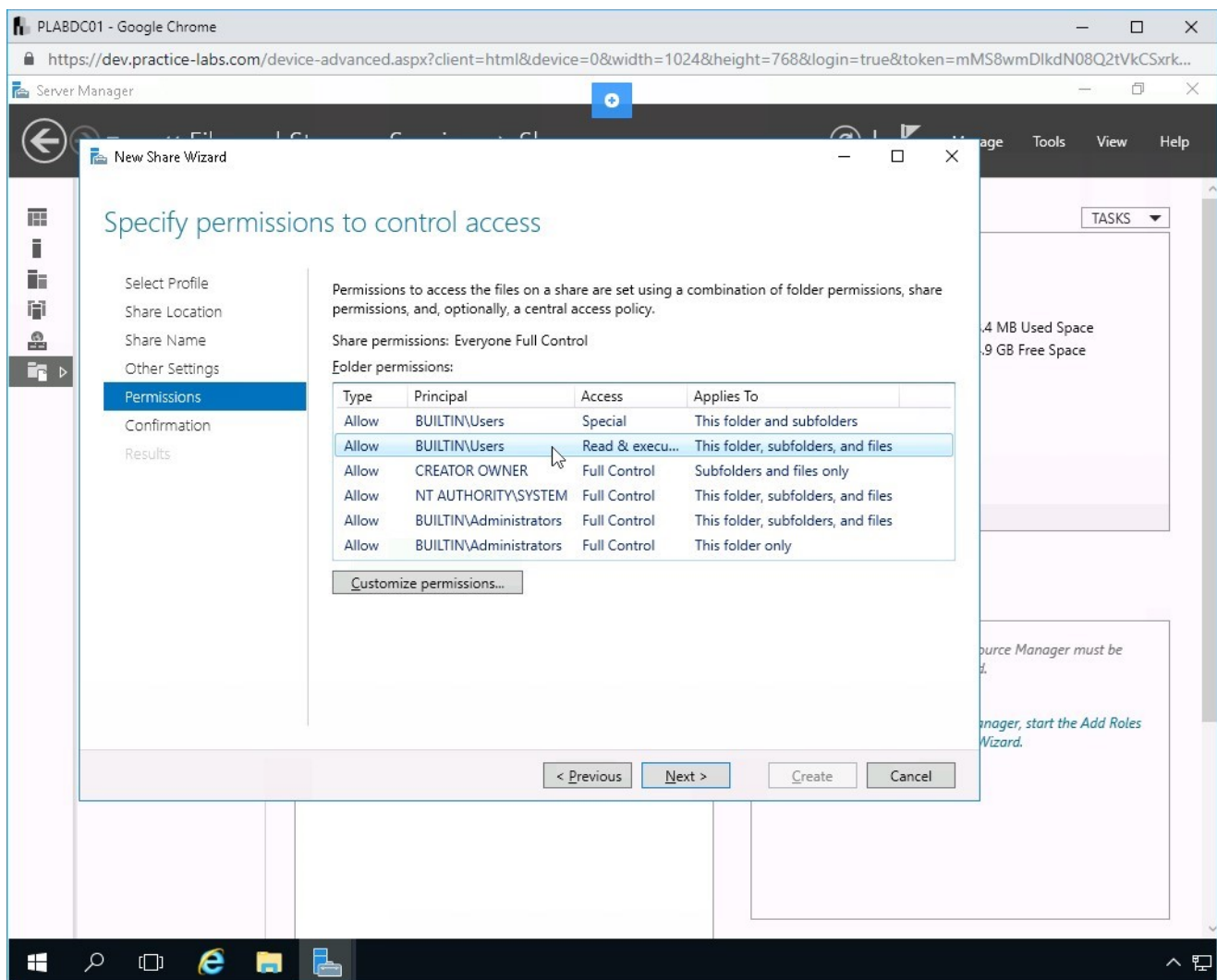
Click **Next**.

Figure 2.29 Screenshot of PLABDC01: Selecting permissions for users on the Specify permissions to control access page.

Step 21

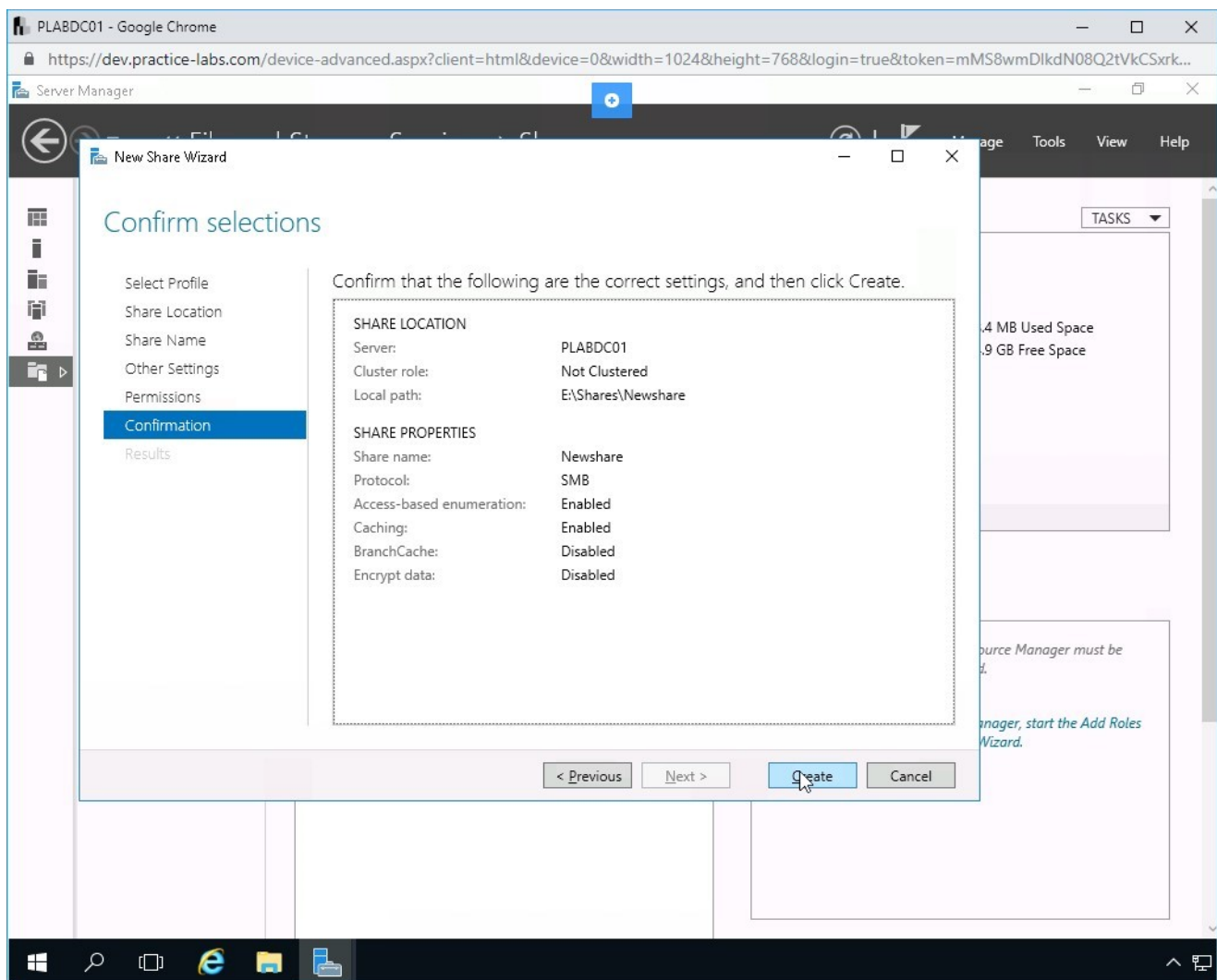On the **Confirm selections** page, click **Create**.

Figure 2.30 Screenshot of PLABDC01: Clicking Create on the Confirm selections page.

Step 22

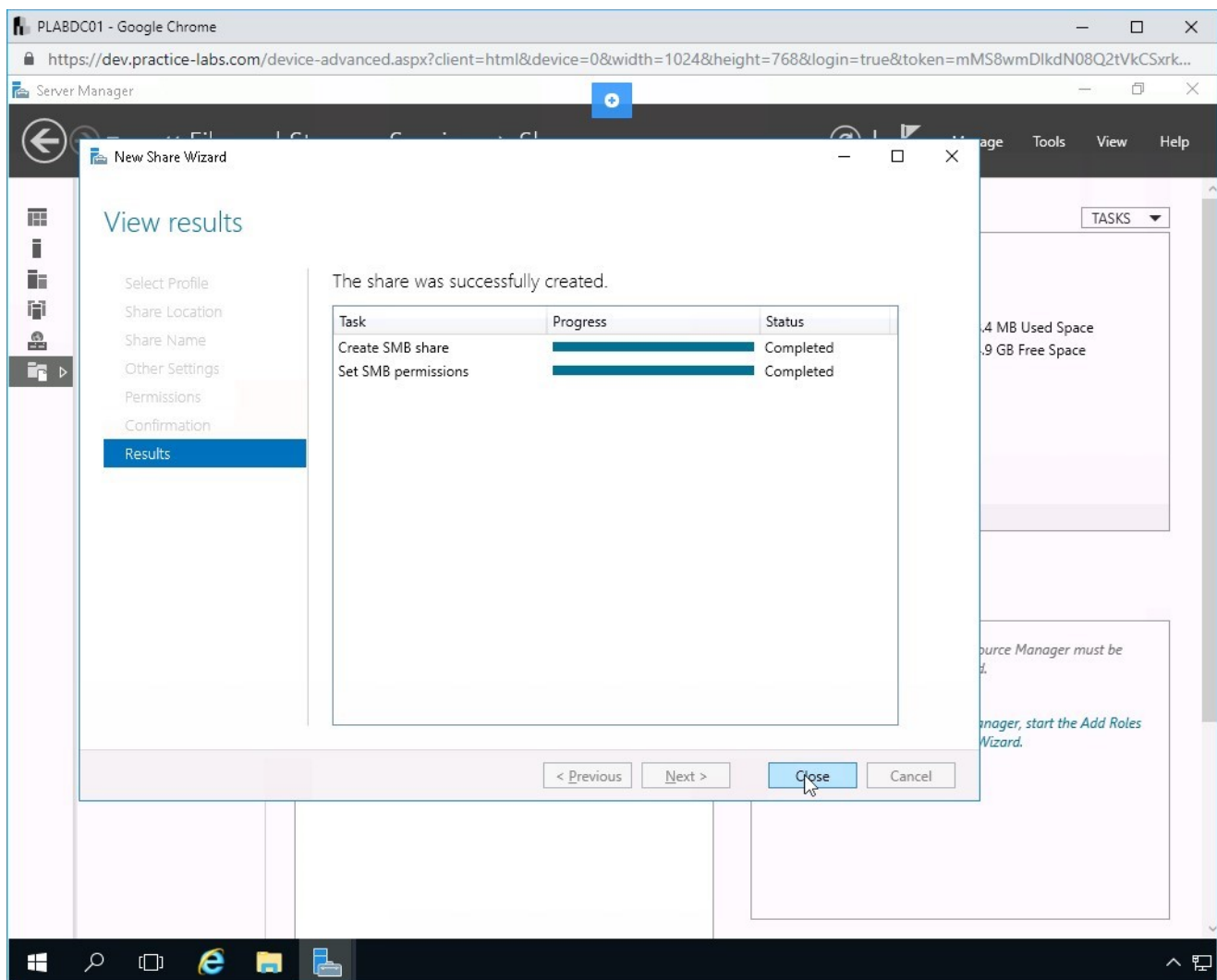On the **View results** page, click **Close**.

Figure 2.31 Screenshot of PLABDC01: Clicking Close on the View results page.

Step 23

You are back on the **Server Manager**.

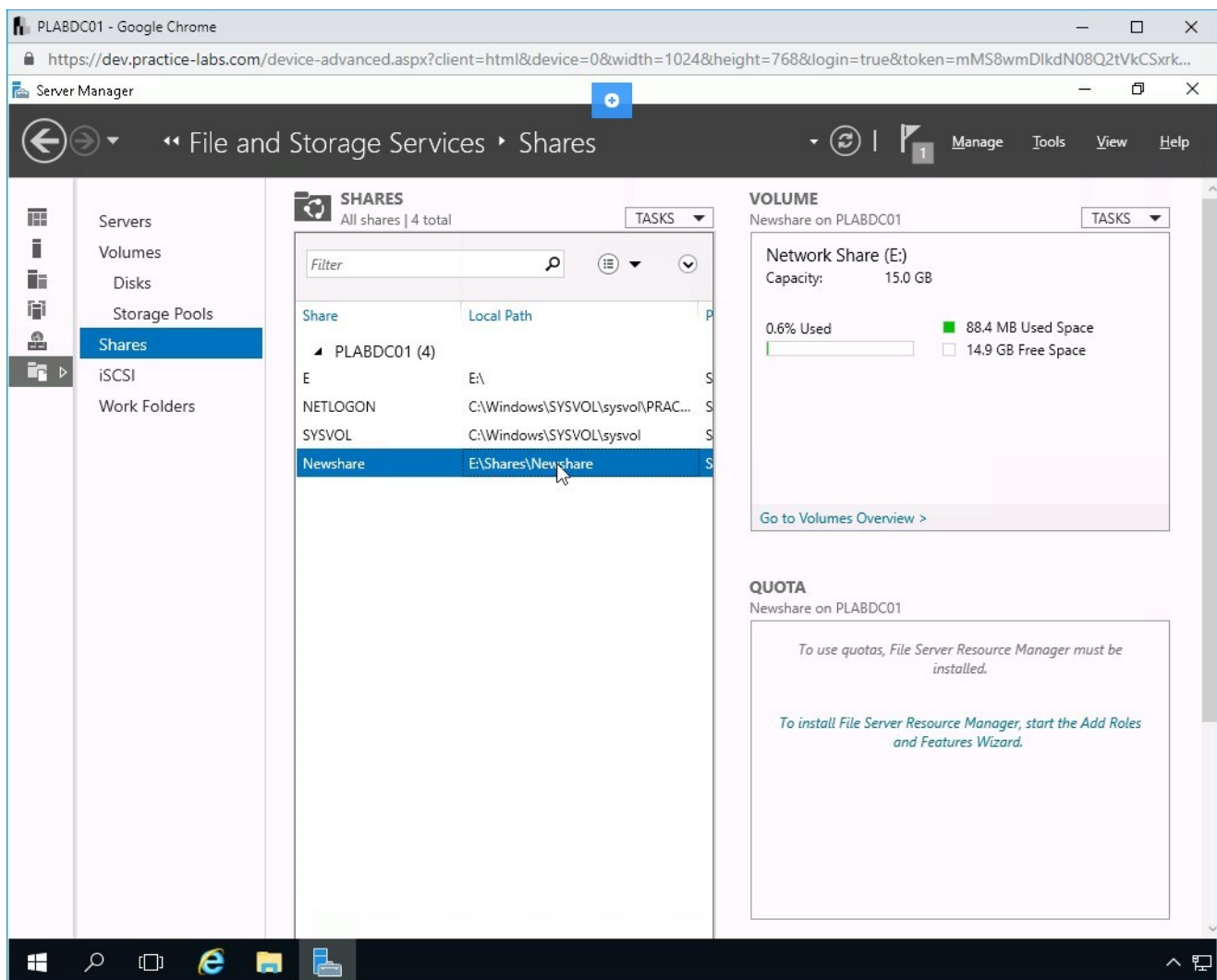Notice that a new share with the name **Newshare** has been created.

Figure 2.32 Screenshot of PLABDC01: Showing the newly created share in the Server Manager window.

Step 24

Let's now connect to the NFS share from **PLABWIN10**.

Connect to the **PLABWIN10** device.

Open **File Explorer** from the Windows taskbar.

From the left pane, right-click **This PC** and select **Map network drive…** from the context menu.
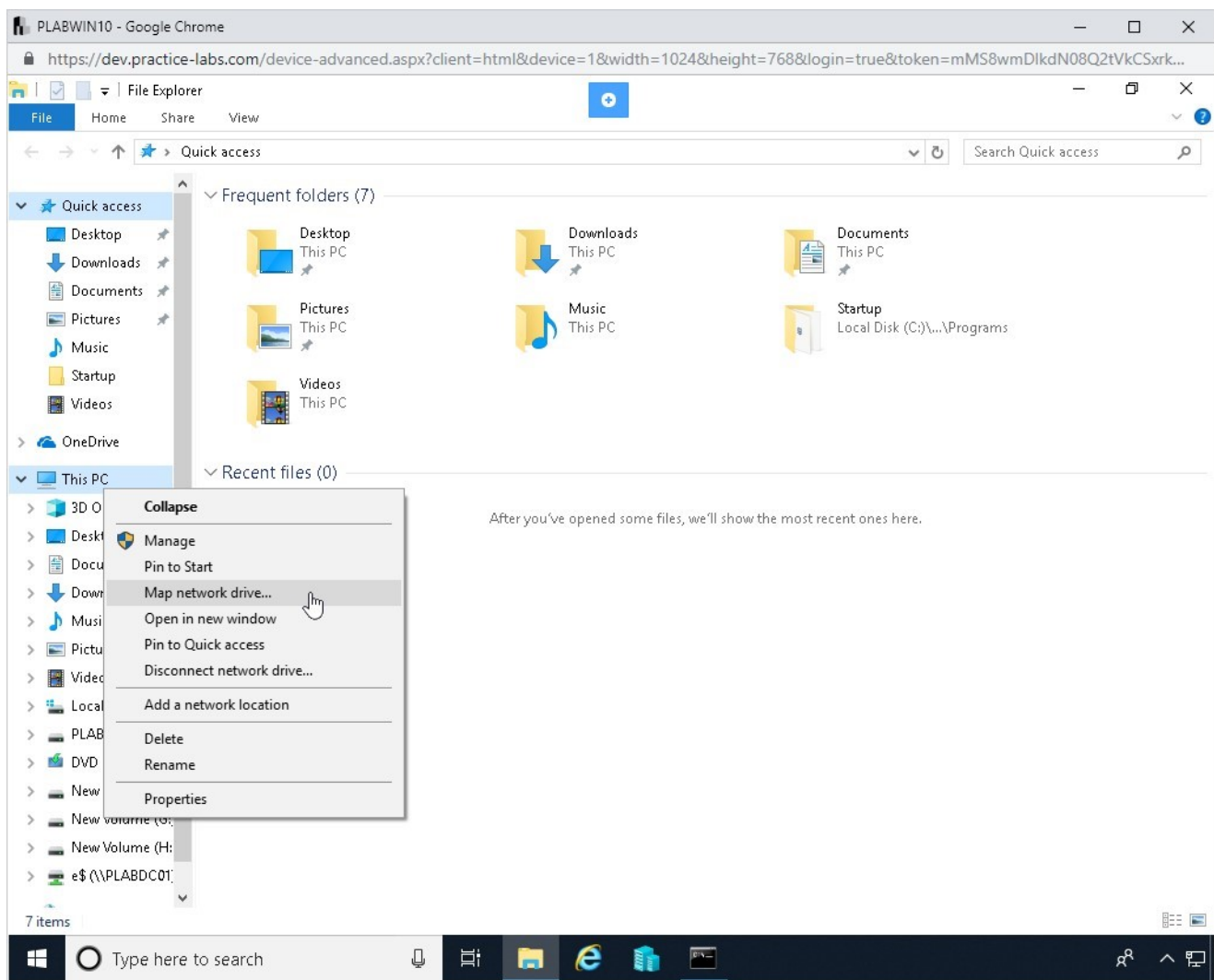
Figure 2.33 Screenshot of PLABWIN10: Selecting the Map network drive option from the context menu.

Step 25

The **Map Network Drive** dialog box is displayed.

In the **Folder** drop-down, type the following path:

```
\\plabdc01\Newshare
```
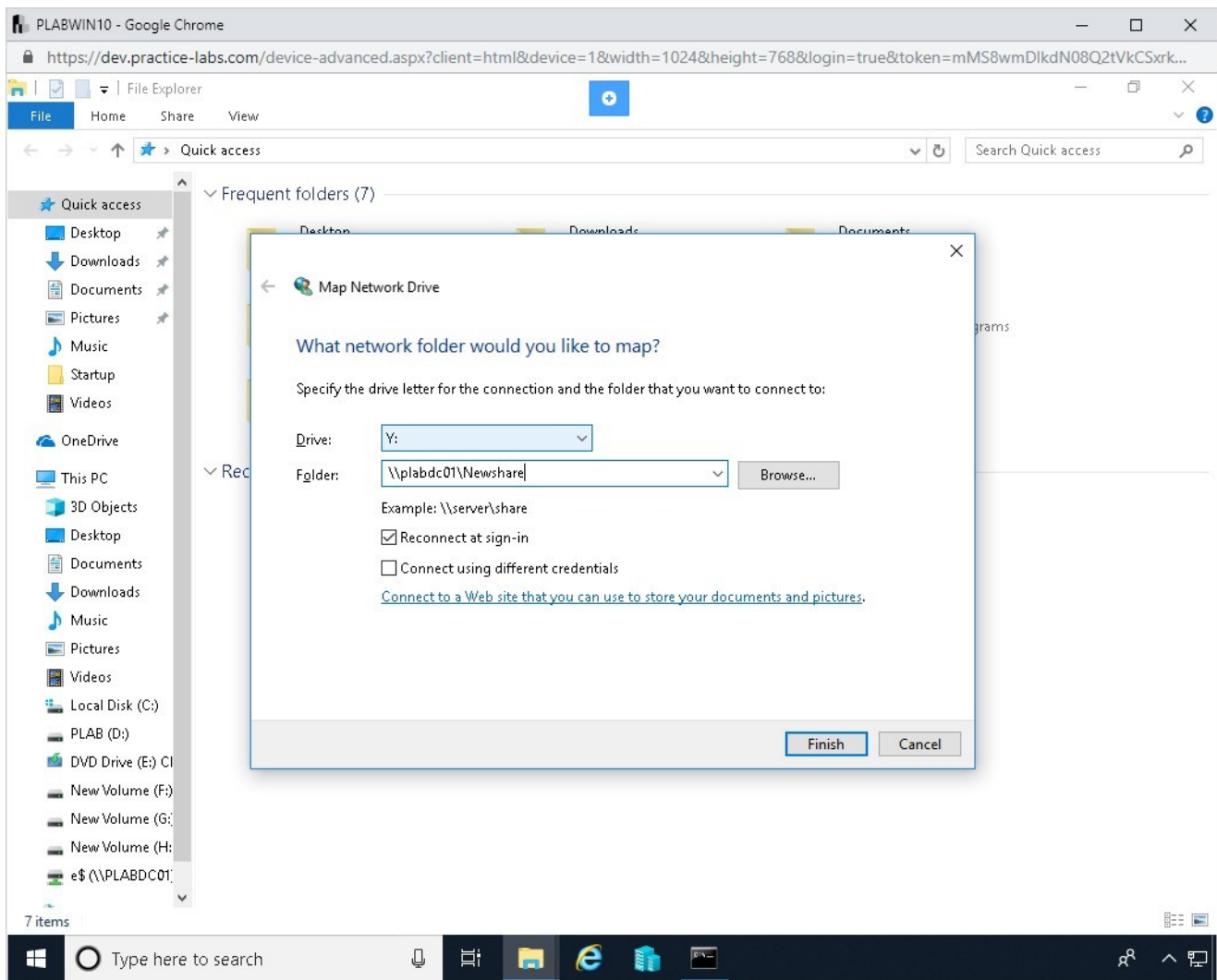
Click **Finish**.

Figure 2.34 Screenshot of PLABWIN10: Entering the path in the Folder drop-down on the Map Network Drive dialog box.

Step 26

A new **File Explorer** window is displayed. You have successfully connected with the SMB (Server Message Block) share.
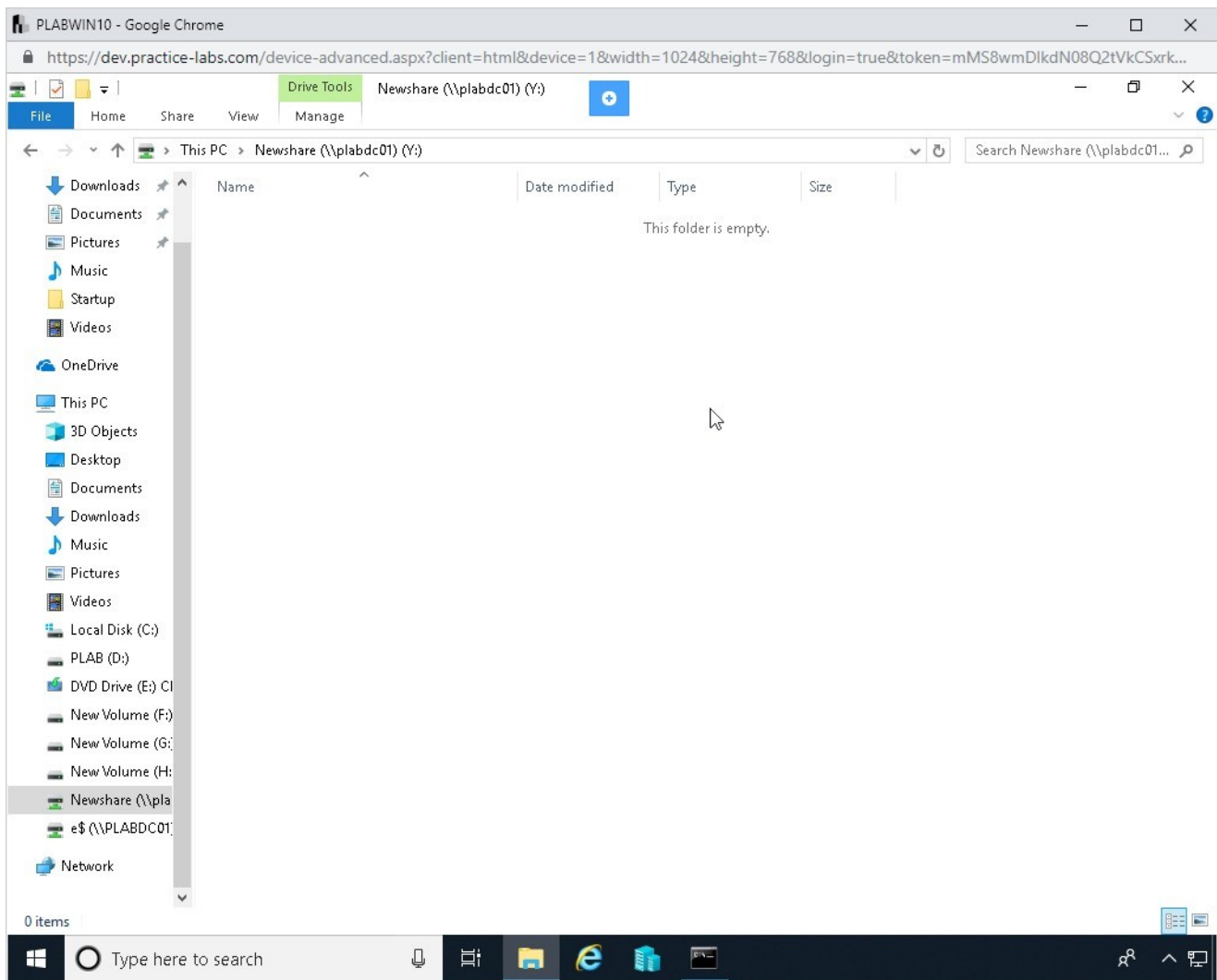
Figure 2.35 Screenshot of PLABWIN10: Showing the share that is accessible.

Step 27

Close all open windows.

Task 3 - View the Swap Partition on CentOS

A swap partition is a part of the hard disk space. This space is used as an extension of the RAM in a computer system. The swap partition is a way to overcome RAM limitations of your system.

When applications demand memory, and there is no physical memory available, then the swap partition is used. The swap partition works like additional memory in the system. However, it is important to note that a swap partition is NOT the replacement for physical memory.

The most recently used files are in the RAM, and the least recently used files are kept in the swap partition. When a new file is to be swapped into the RAM, the least recently used file is swapped out of it and moved to the swap partition.

A swap partition is created on the hard drive, and therefore, it can increase the wear and tear of the hard drive.

In this task, you will view the swap partition in CentOS.

Step 1

Connect to **PLABCENTOS**.

On the desktop, right-click and select **Open Terminal**.
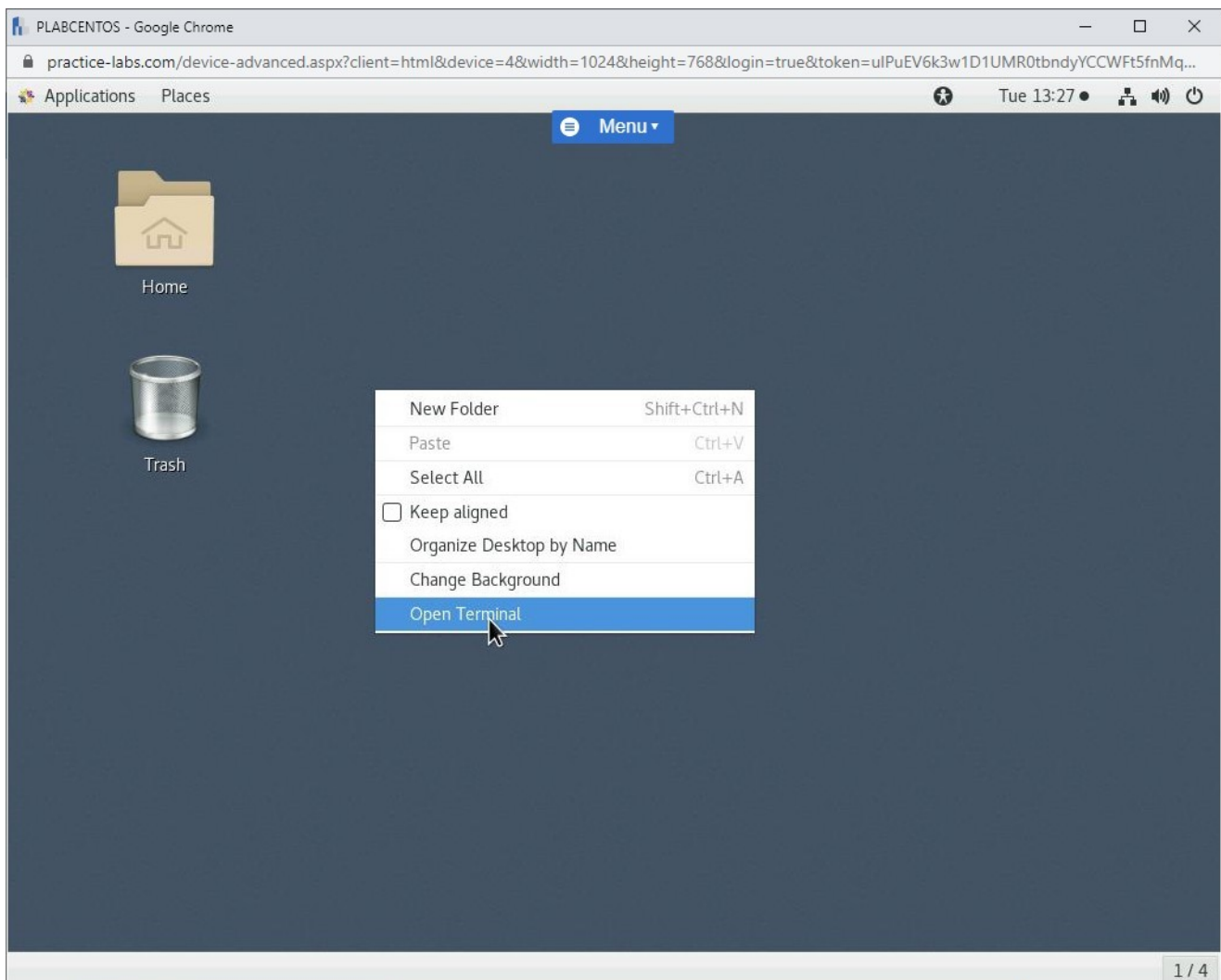

Figure 2.36 Screenshot of PLABCENTOS: Selecting the Open Terminal option from the context menu.

Step 2

The terminal window is displayed. Type the following command:

```
su -
```

Press **Enter**.

At the **Password** prompt, type the following password:

Passw0rd

Press **Enter**.

Step 3

To view the swap partition, type the following command:

```
swapon -s
```

Press **Enter.** Notice that CentOS has a **209174 KB** of the swap partition. This number may vary in the lab enviroment.
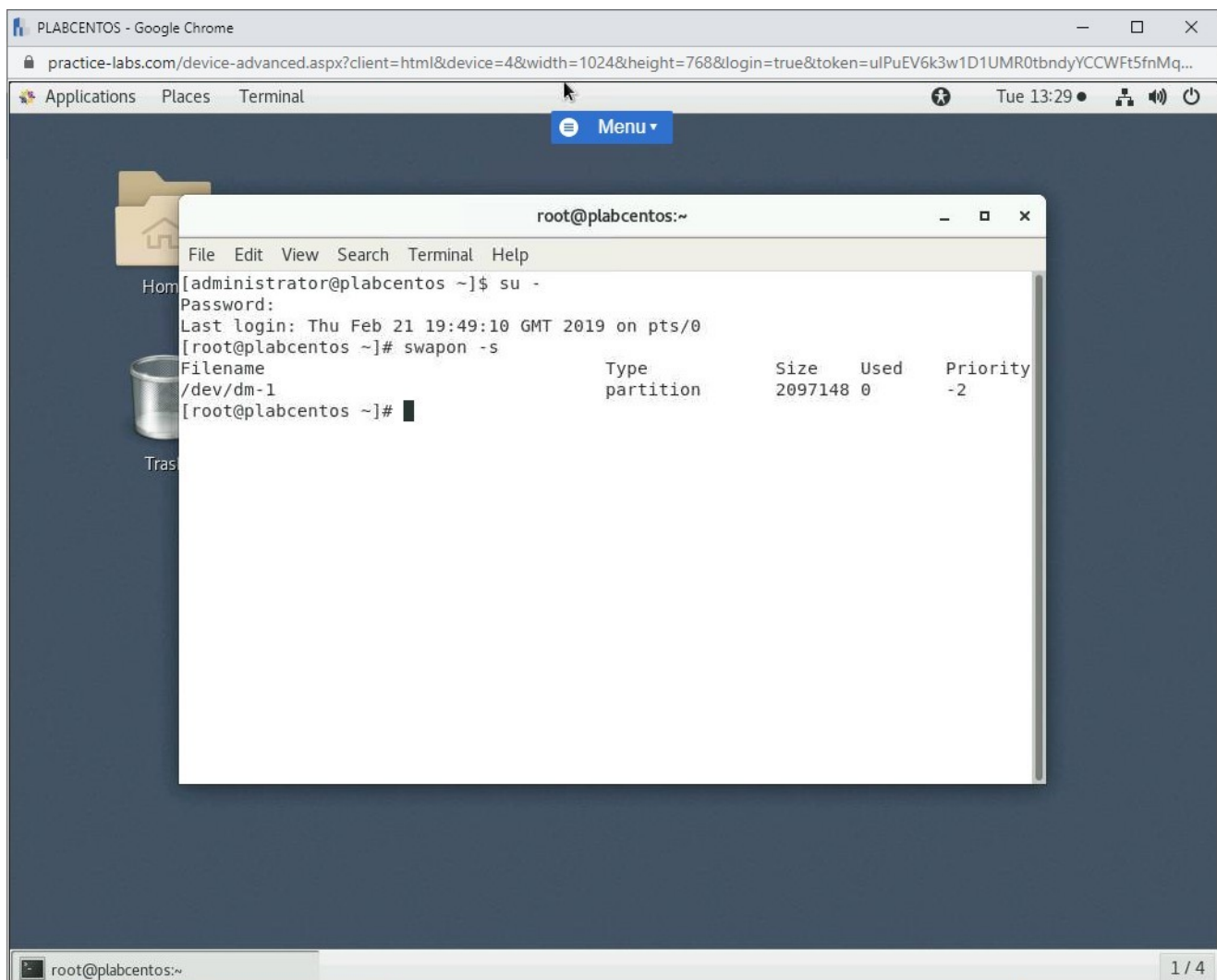
Figure 2.38 Screenshot of PLABCENTOS: viewing the swap partition with the swapon -s command.

Task 4 - View the Swap File in Windows 10

Windows does not contain a swap partition, but it contains a swap file, which is known as pagefile.sys. It serves the same purpose as the swap partition. You can store the pagefile.sys in its default location, create a new partition and store the pagefile.sys there, or configure the pagefile.sys to be stored on all partitions.

In this task, you will view the swap partition in Windows 10.

Step 1

Connect back to **PLABWIN10**. In the Type here to search text box, type the following command:

```
Control Panel
```
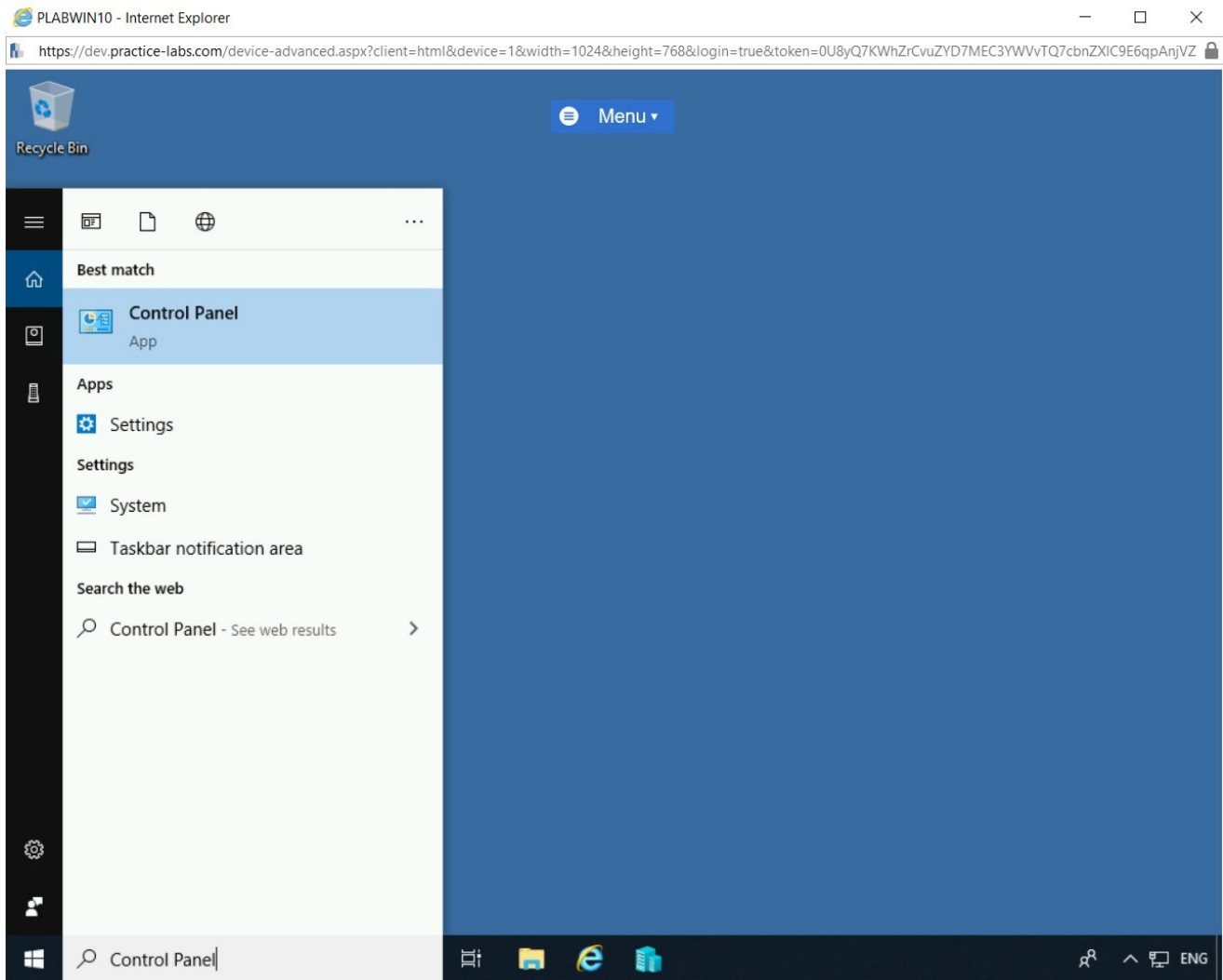
Select **Control Panel** from the search results.

Figure 2.39 Screenshot of PLABWIN10: Selecting Control Panel from the search results.

Step 2

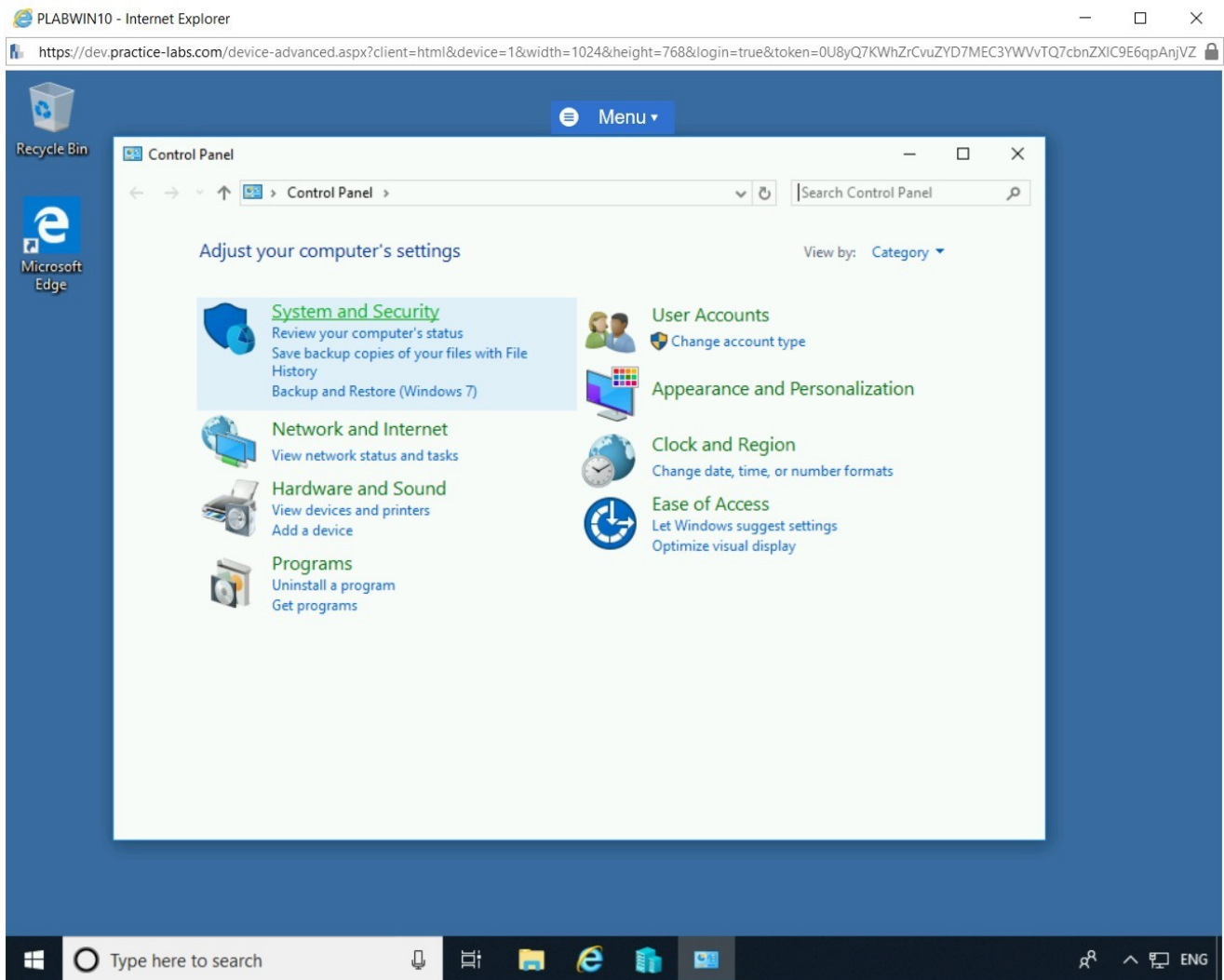The **Control Panel** window is displayed. Select **System and Security.**

Figure 2.40 Screenshot of PLABWIN10: Selecting System and Security from the Control Panel window.

Step 3

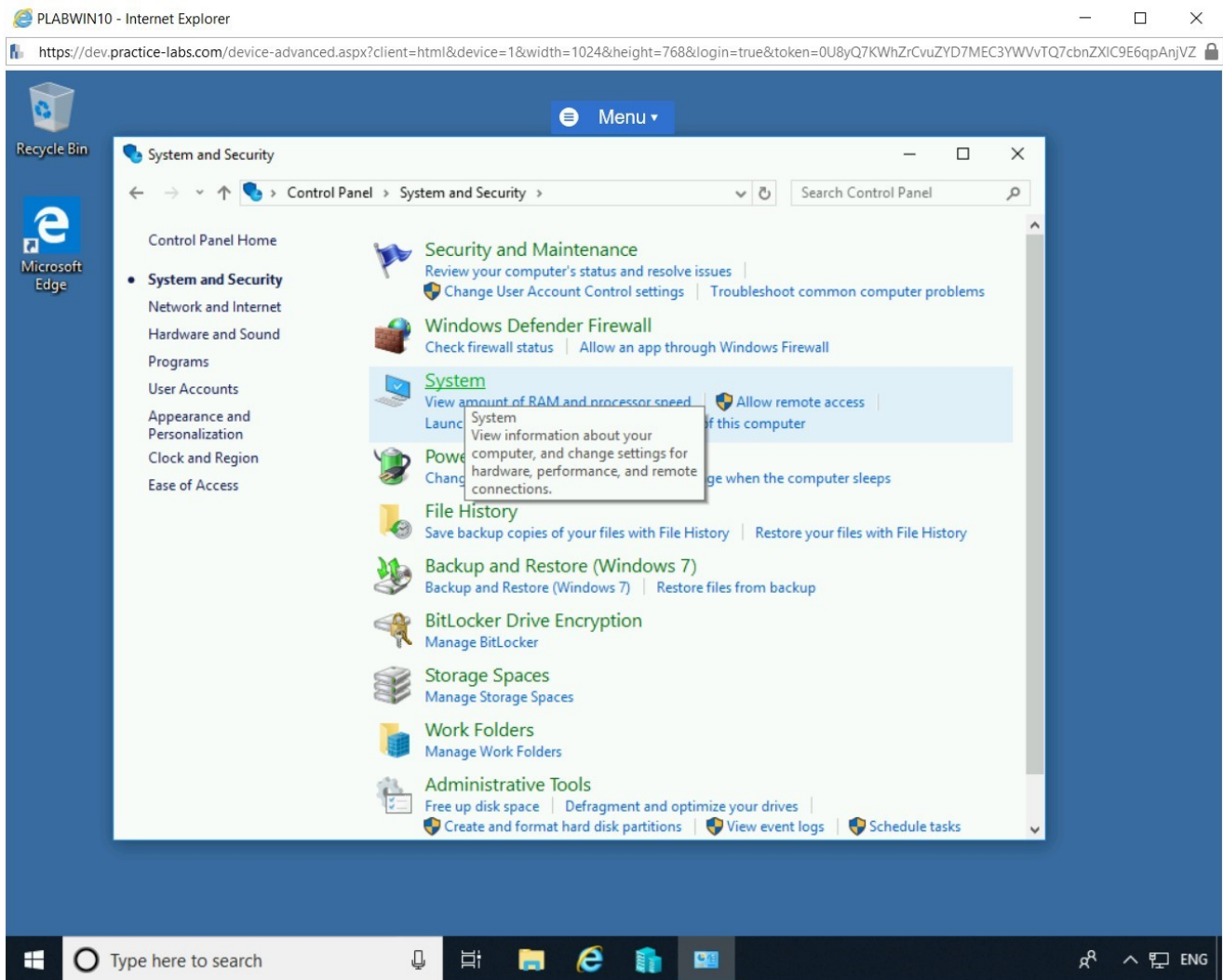Click **System** from the **System and Security** window.

Figure 2.41 Screenshot of PLABWIN10: Selecting System from the System and Security window.

Step 4

The **System** window is displayed. In the left pane, click the **Advanced system settings** link.
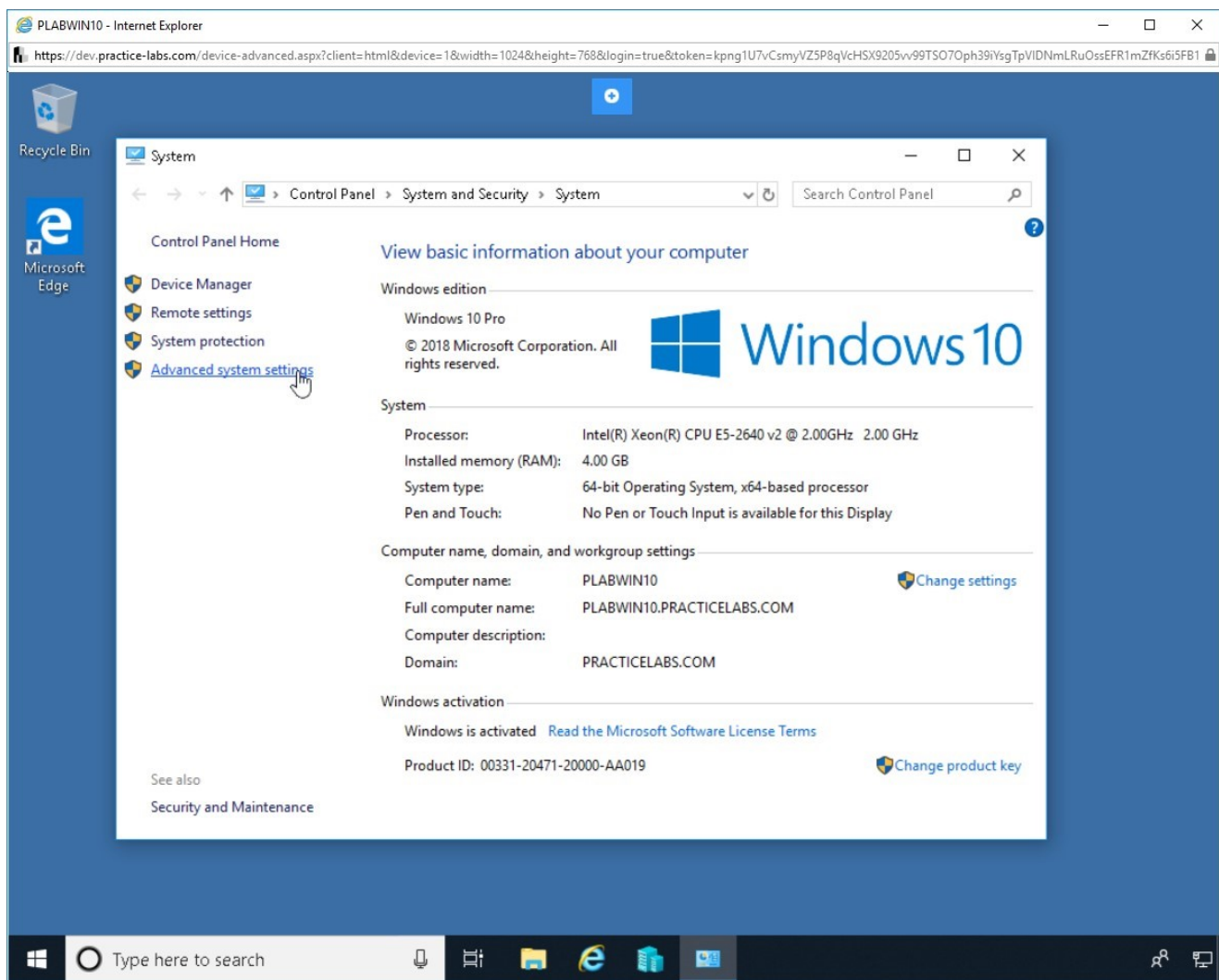
Figure 2.42 Screenshot of PLABWIN10: Clicking the Advanced system settings link in the left pane.

Step 5

The **System Properties** dialog box is displayed. On the **Advanced** tab, click **Settings** in the **Performance** section.
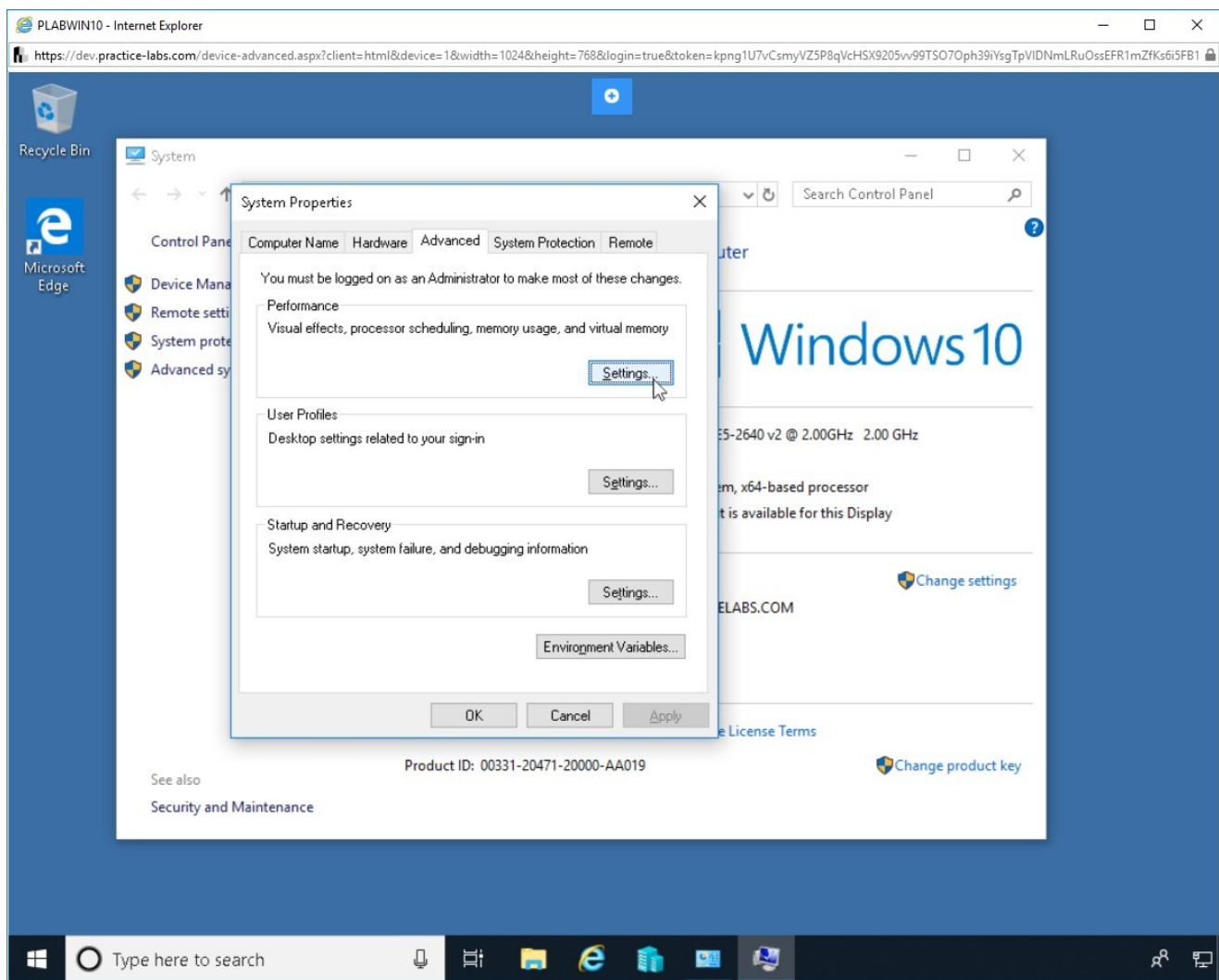
Figure 2.43 Screenshot of PLABWIN10: Clicking Settings on the Advanced tab of the System Properties dialog box.

Step 6

The **Performance Options** dialog box is displayed. Click the **Advanced** tab, and then click **Change** in the **Virtual memory** section.
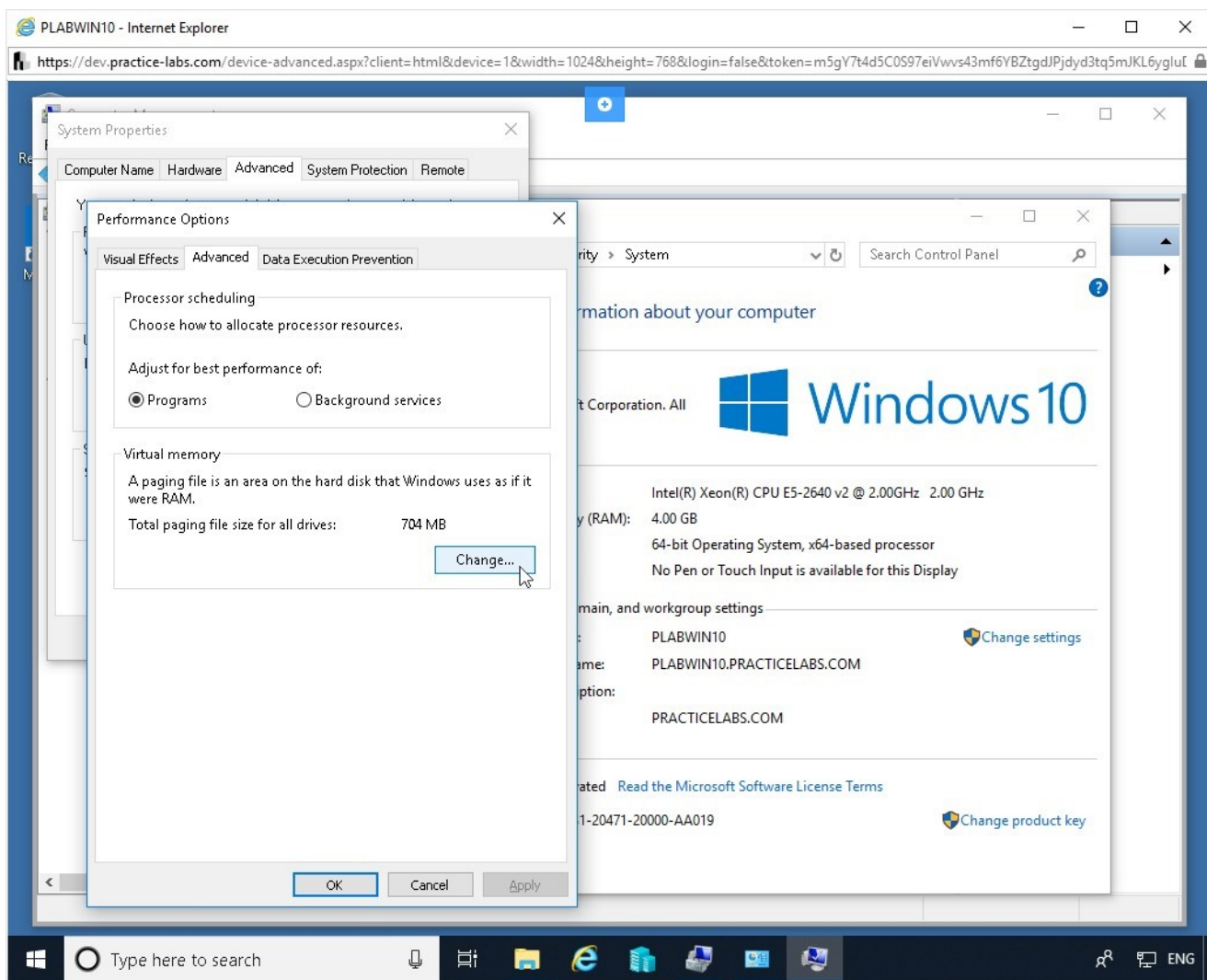
Figure 2.44 Screenshot of PLABWIN10: Clicking Change on the Advanced tab of the Performance Options dialog box.

Step 7

The **Virtual Memory** dialog box is displayed.

Notice that **Automatically manage paging file size for all drives** is selected by default. When this option is selected, there is no manual intervention required to set the paging file size. Windows, depending on the RAM installed, configures the size of the **pagefile.sys** file.

If you deselect this option, then you should select the **Custom size** and set the page file size on a single partition or multiple partitions/hard drives.

Also notice that the **Total paging file size for all drives** is displayed in the **Virtual memory** section.
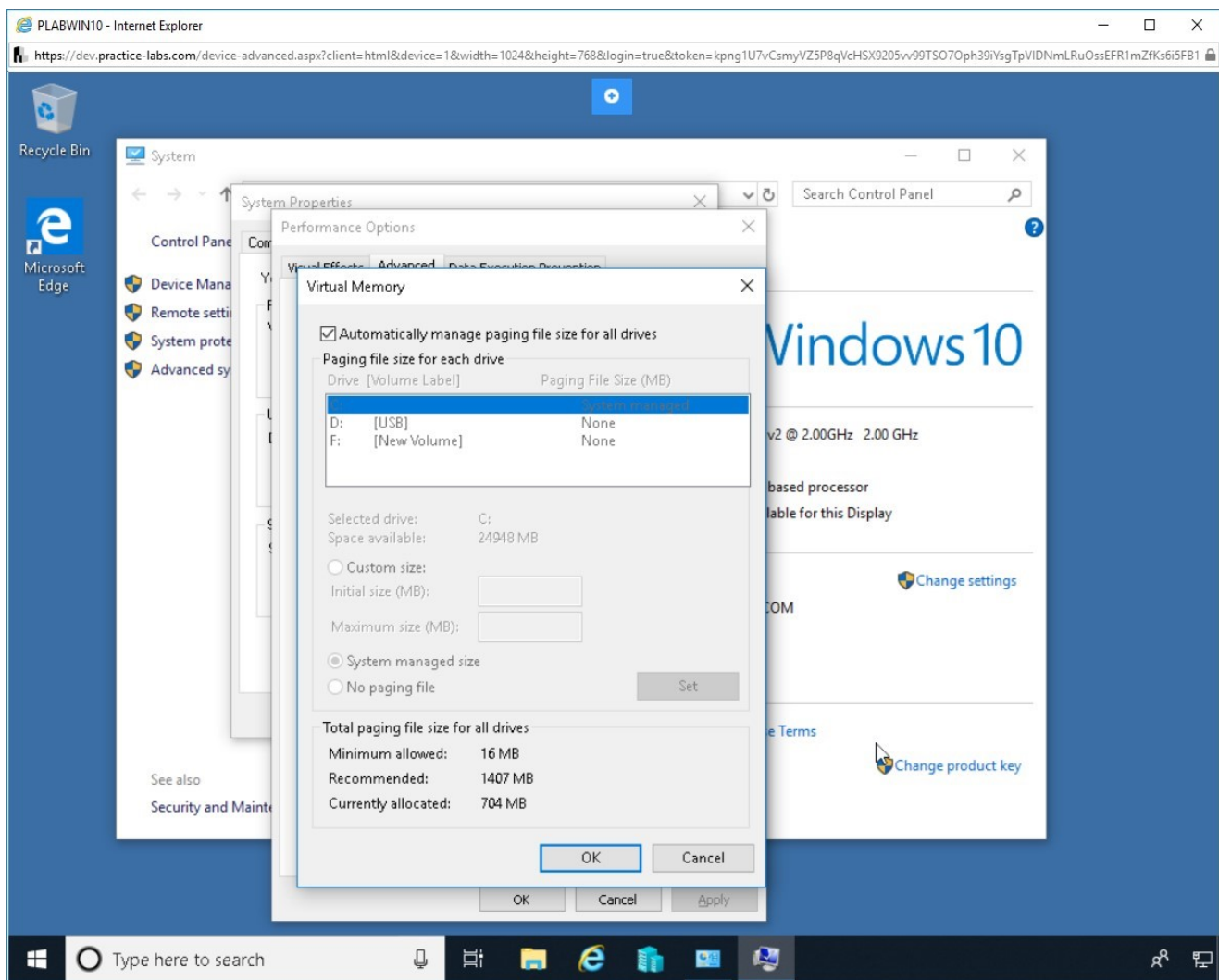
Figure 2.45 Screenshot of PLABWIN10: Showing the Virtual Memory dialog box with the page file configuration.

Step 8

Close all open dialog boxes and windows.

Review

Well done, you have completed the **Disk Partitioning Methods and File Systems** Practice Lab.

Summary

You completed the following exercises:

- Exercise 1 - Perform Disk Partitioning
- Exercise 2 - Work with Different File Systems

You should now be able to:

- Create a Dynamic Partition
- Create a Primary Partition
- Create an Extended and Logical Partition
- Convert to MBR or GPT Disk
- Create FAT32 and NTFS File Systems
- Configure the Network File System (NFS)
- View the Swap Partition on CentOS
- View the Swap File in Windows 10

Feedback

Shutdown all virtual machines used in this lab. Alternatively, you can log out of the lab platform.