CompTIA Linux+

View the Hard Drive Details

Introduction

Welcome to the **View the Hard Drive Details** Practice Lab. In this module you will be provided with the instructions and devices needed to develop your hands-on skills.

Hard Drive
Linux System
Filesystems

Learning Outcomes

In this module, you will complete the following exercise:

- Exercise 1 - View the Hard Drive Details

After completing this lab, you will be able to:

- Use various methods to view hard drive details

Exam Objectives

The following exam objectives are covered in this lab:

- **LPI:** 104.1 Create partitions and filesystems
- **LPI:** 104.3 Control mounting and unmounting of filesystems
- **CompTIA:** 1.4 Given a scenario, manage storage in a Linux environment.

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 **1 hour** to complete this lab.

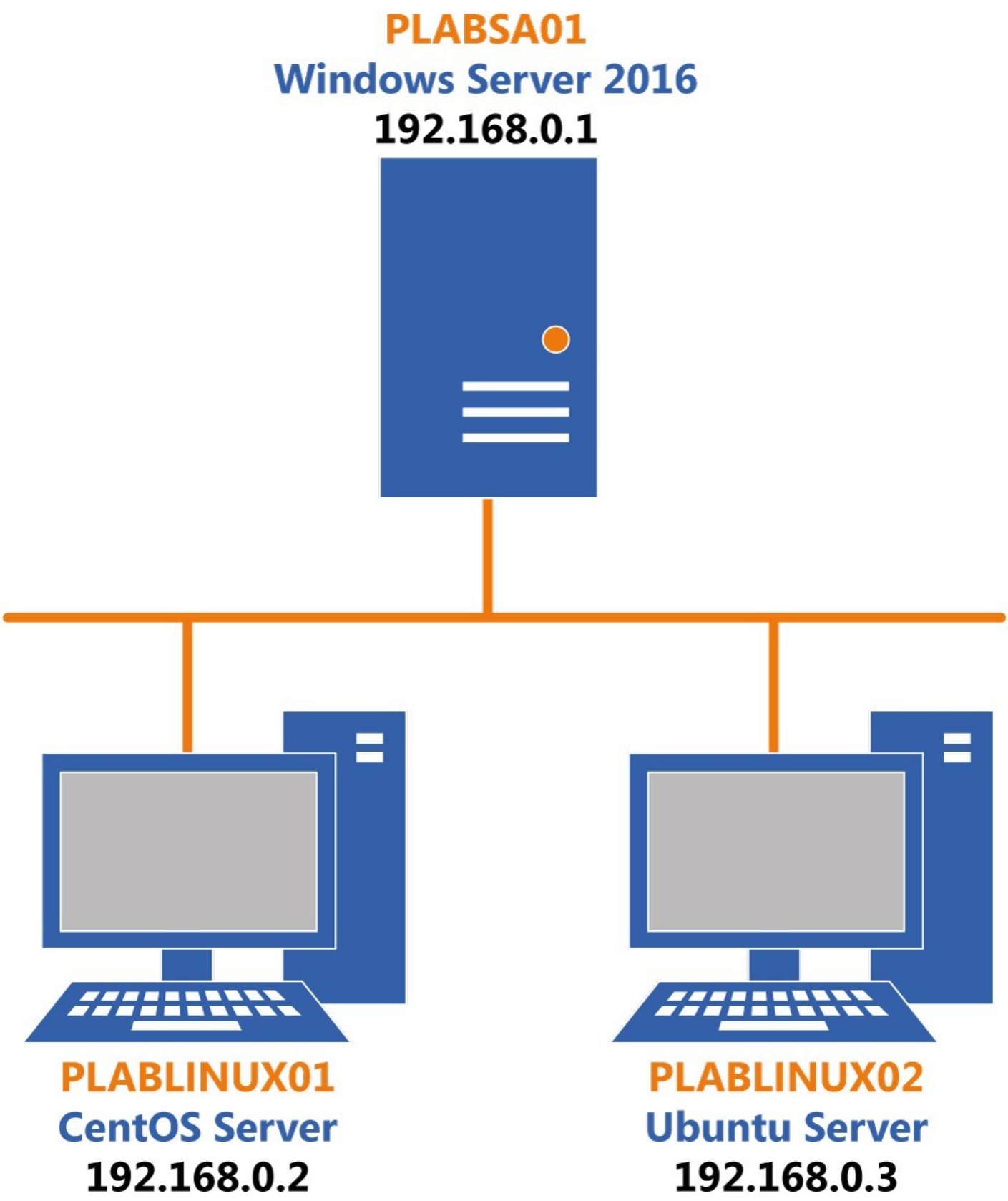
Help and Support

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.

- **PLABSA01** (Windows Server 2016)
- **PLABLINUX01** (CentOS Server)
- **PLABLINUX02** (Ubuntu Server)

Click Next to proceed to the first exercise.

Exercise 1 - View the Hard Drive Details

CentOS provides various methods and commands to view the hard drive details.

In this exercise, you will learn to view the hard drive details.

Learning Outcomes

After completing this exercise, you will be able to:

- Log into a Linux System
- Use various methods to view hard drive details

Your Devices

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

- **PLABLINUX01** (CentOS Server)

Task 1 -Use Various Methods to View Hard Drive Details

There are various methods that you can use to view the hard drive details.

In this task, you will learn to view the hard drive details. To view the hard drive details, perform the following steps:

Step 1

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

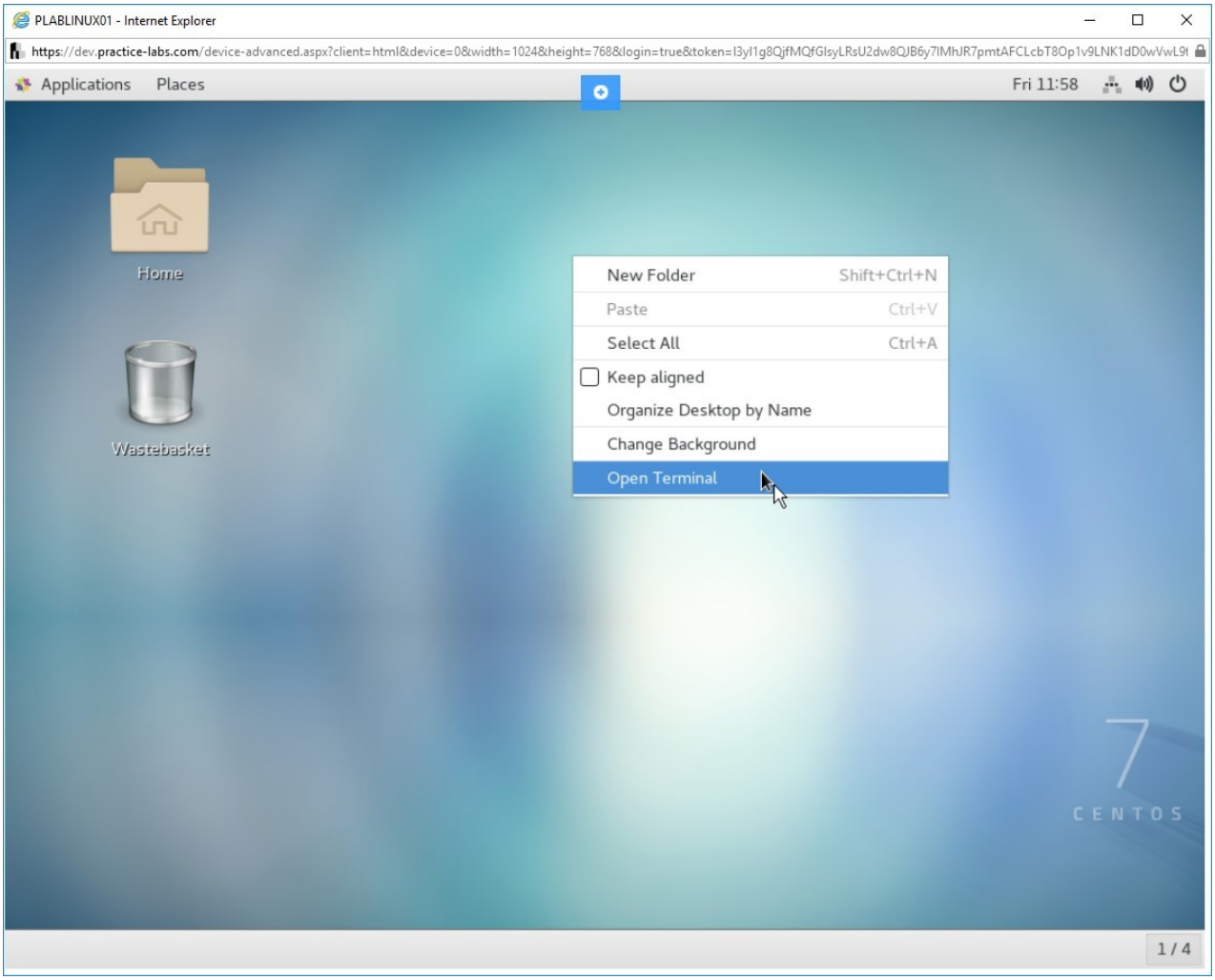


Figure 1.1 Screenshot of PLABLINUX01: Selecting the Open Terminal option from the context menu.

Step 2

The terminal window is displayed. You can use view the **/proc/partitions** file to view the hard drive details. This file contains a table that mentions the major and minor number of partitioned devices. Type the following command:

```
cat /proc/partitions
```

Press **Enter**. Notice that there are **major** and **minor** columns. The **major** column defines the device type. For example, the number **2** denotes a floppy drive. The number **8** denotes **sd** device. The **minor** column defines the unique identification of an instance of this device type.

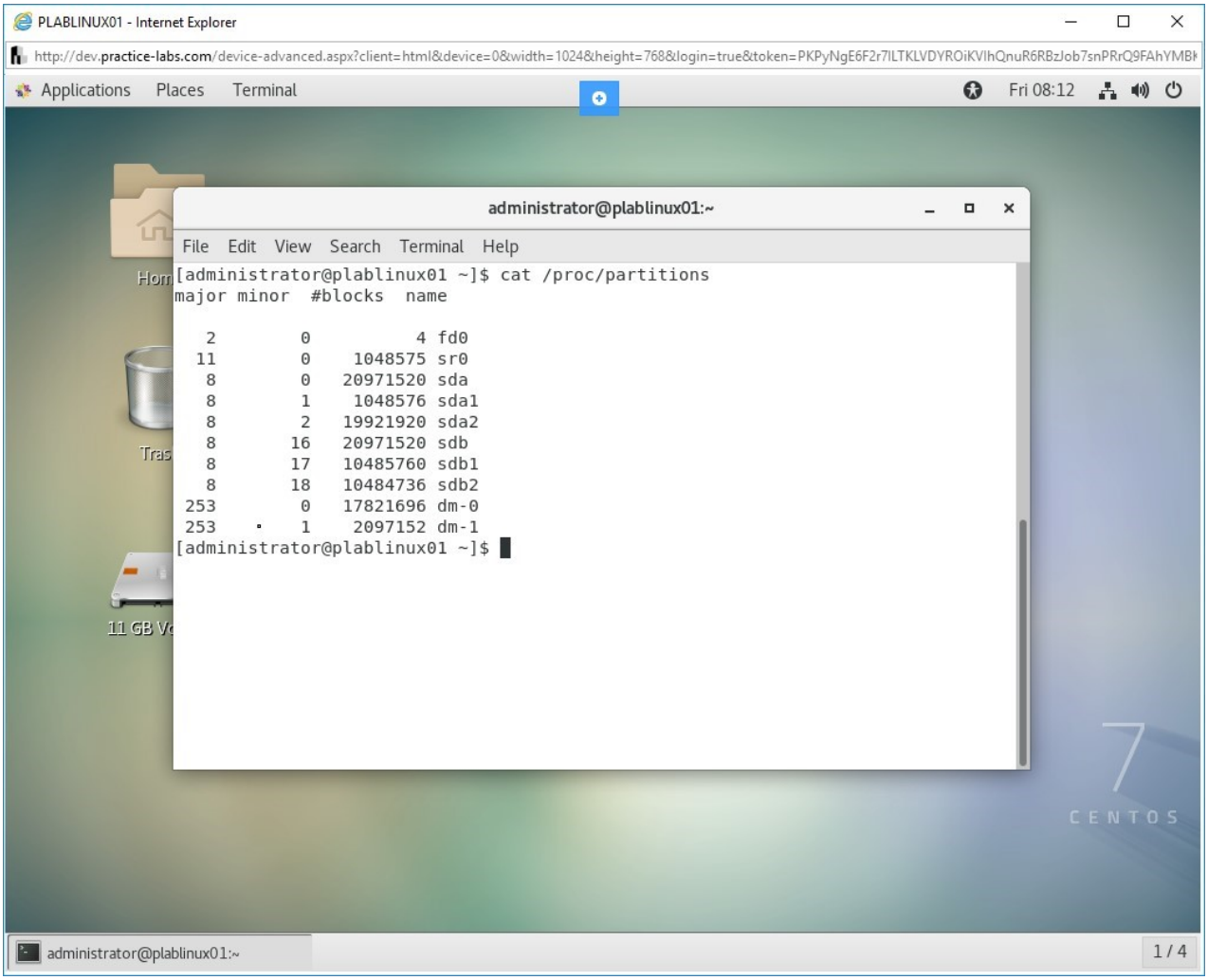


Figure 1.2 Screenshot of PLABLINUX01: Displaying /proc/partitions file.

Step 3

Similar to the partition and volume information, you can also view the mount points. Type the following command:

```
cat /proc/mounts
```

Press **Enter**.

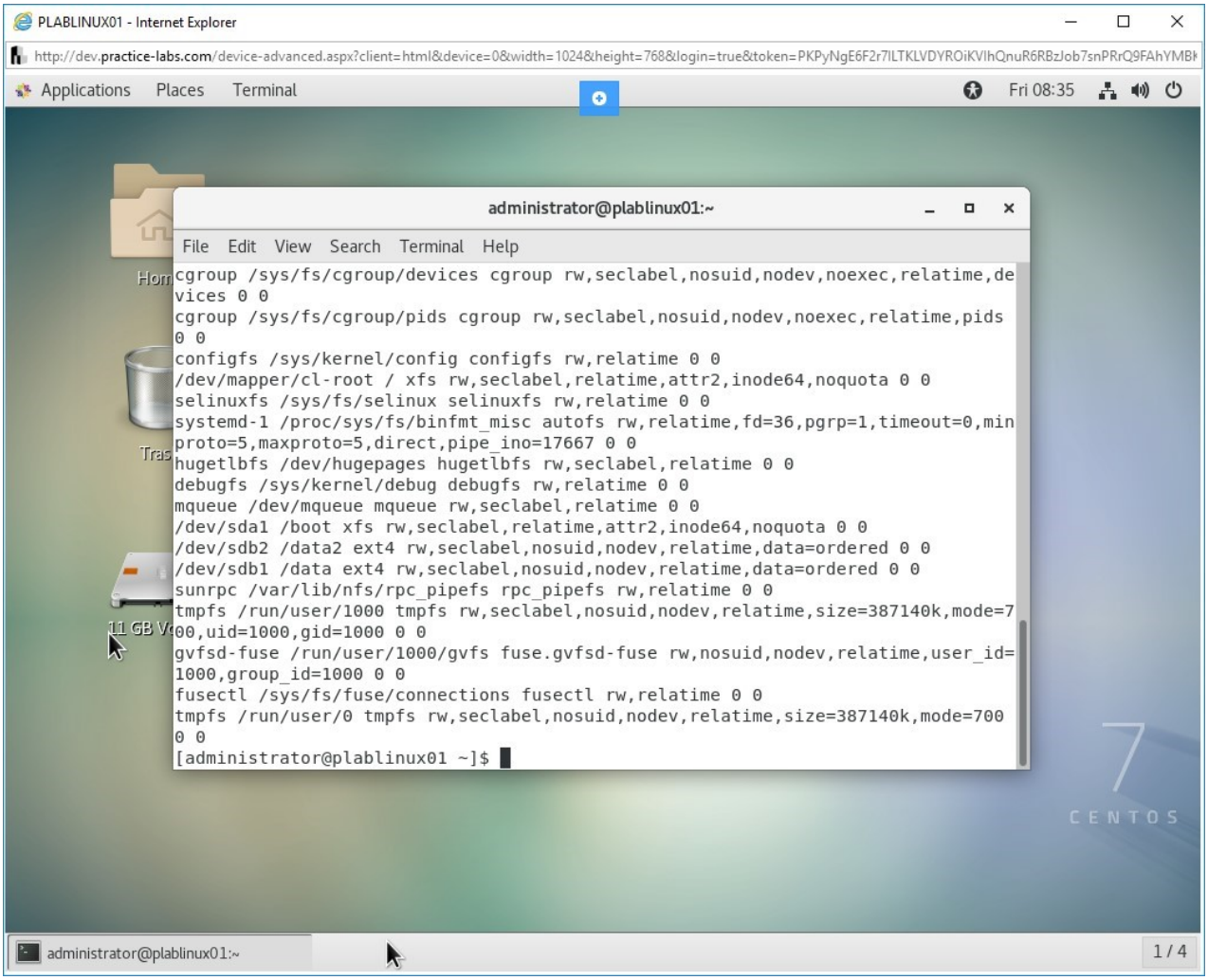


Figure 1.3 Screenshot of PLABLINUX01: Displaying /proc/mounts file.

Step 4

The **df** command can also display the information about the mounted filesystems. Type the following command:

```
df -h
```

Press **Enter**.

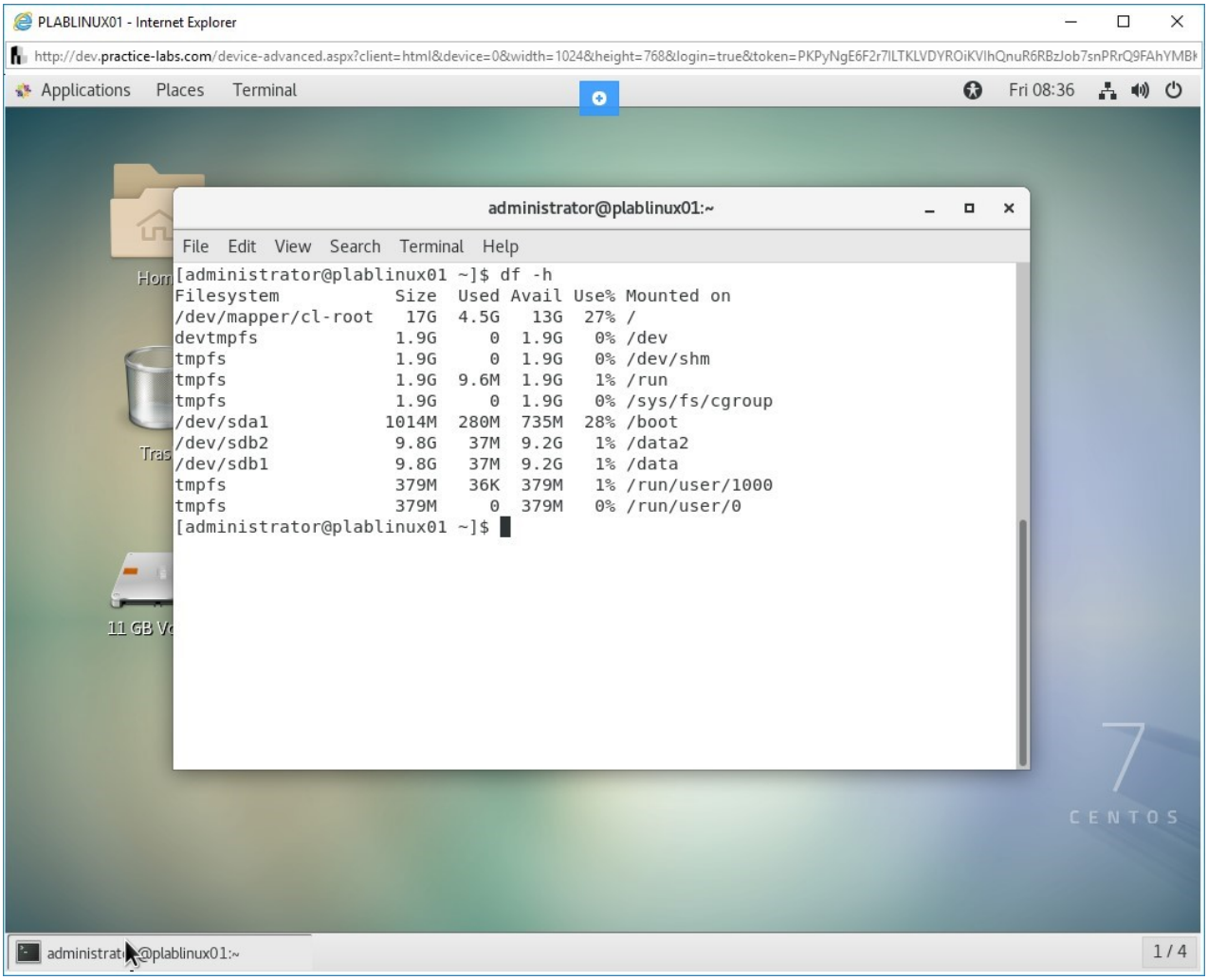


Figure 1.4 Screenshot of PLABLINUX01: Executing the df command.

Step 5

The **parted** command can also display and modify the partitions. Type the following command:

```
sudo parted -l
```

Press **Enter**.

When prompted, type the following password:

`Passw0rd`

Press **Enter**.

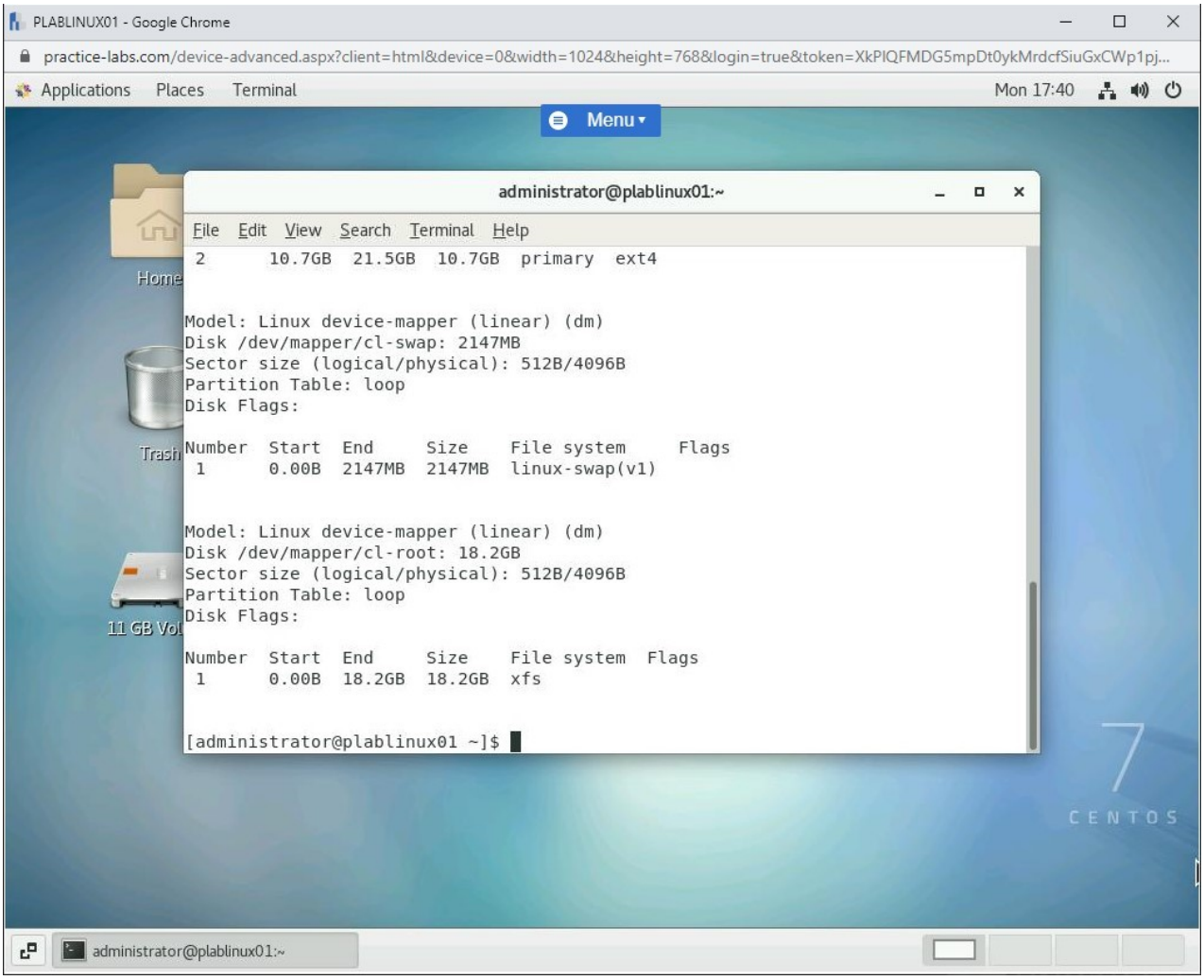


Figure 1.5 Screenshot of PLABLINUX01: Executing the parted command.

Step 6

The **cfdisk** utility is a partition editor that can display and modify the partitions. Type the following command:

```
sudo cfdisk
```

Press **Enter**. Press **Ctrl + C** to break the command.

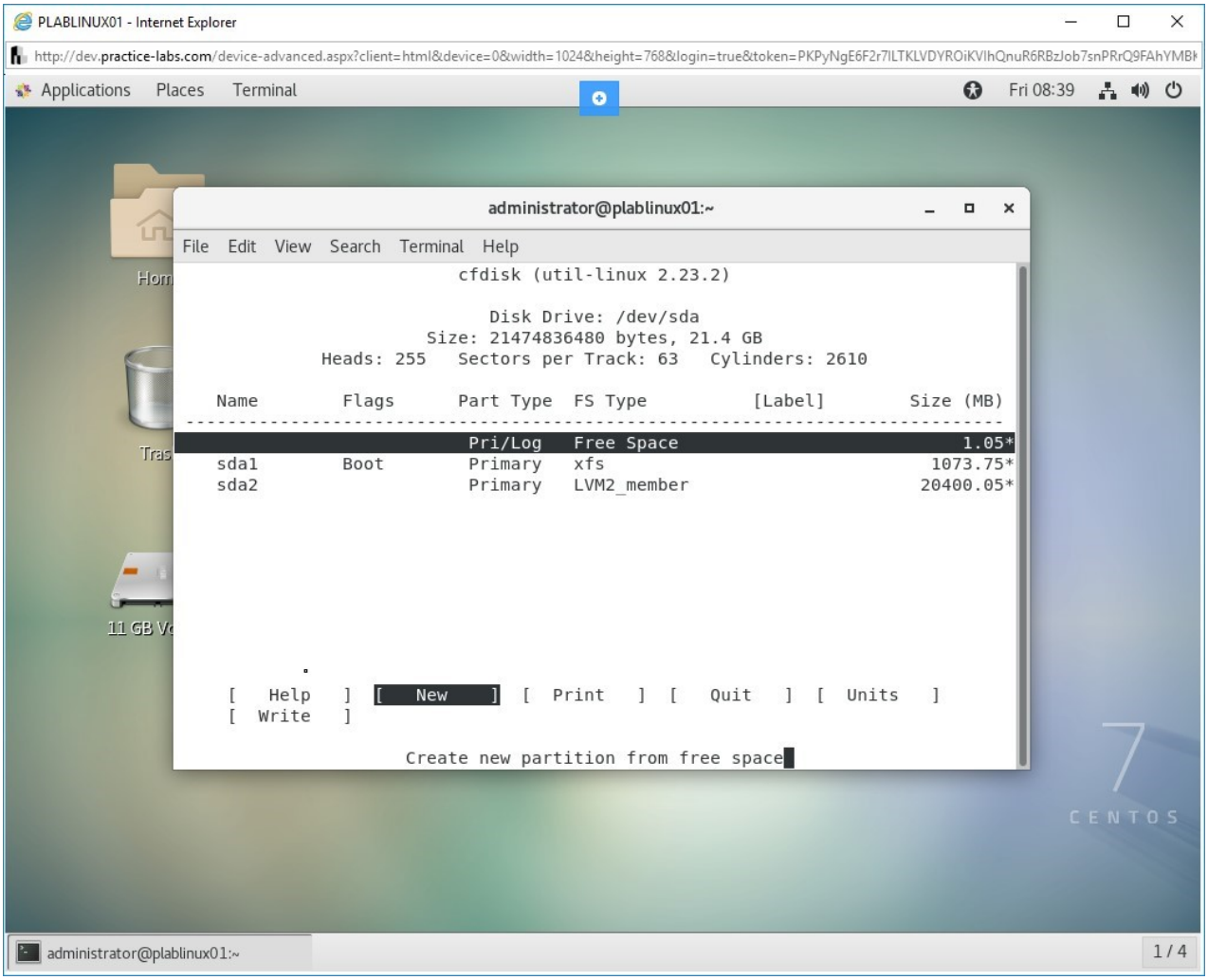


Figure 1.6 Screenshot of PLABLINUX01: Executing the cfutility.

Step 7

The **sfdisk** utility is a partition editor that can display and modify the partitions. Type the following command:

```
sudo sfdisk -l -uM
```

Press **Enter**.

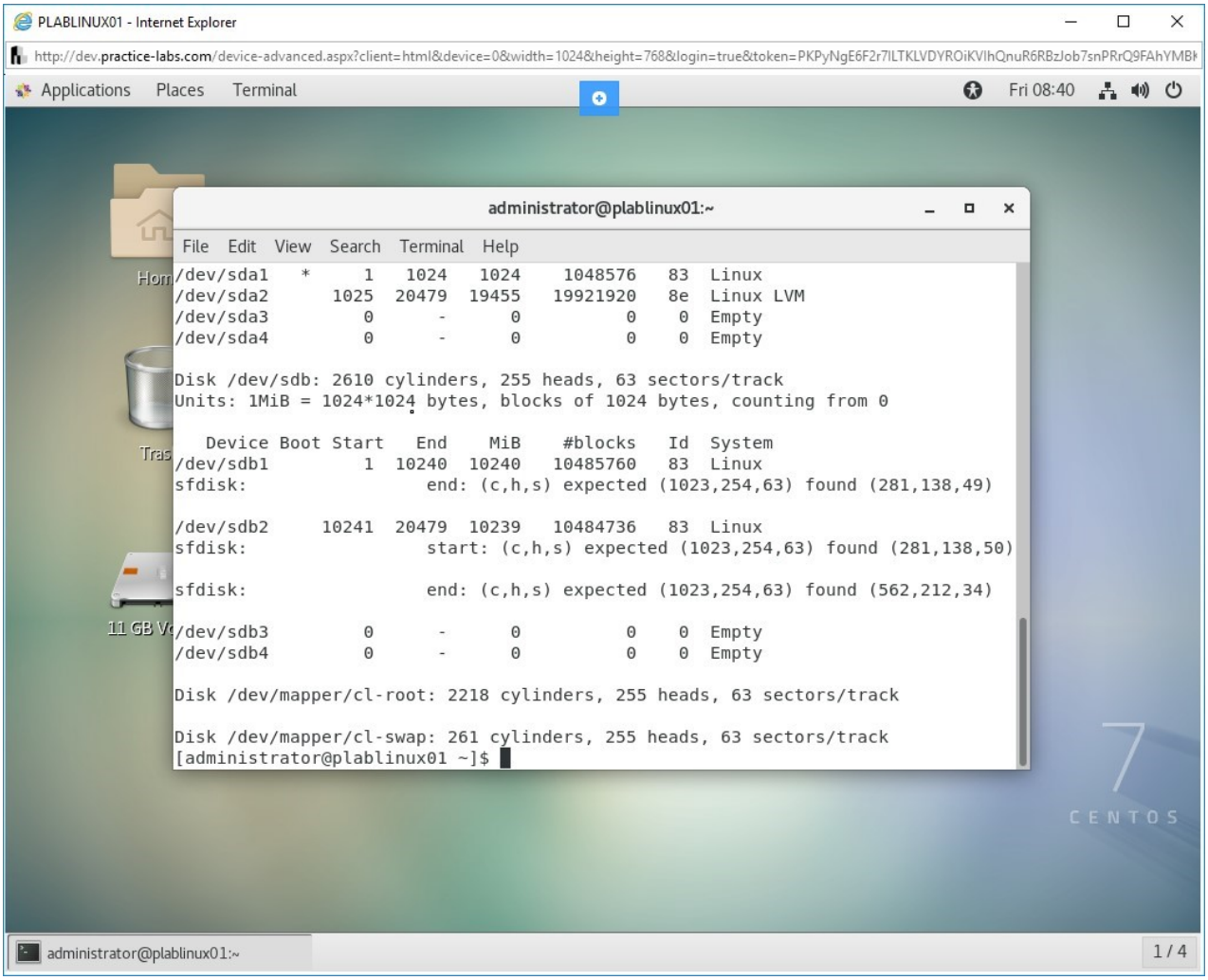


Figure 1.7 Screenshot of PLABLINUX01: Executing the sfdisk command.

Step 8

The **fdisk** utility is a partition editor that can display and modify the partitions. Type the following command:

```
sudo fdisk -l
```

Press **Enter**.

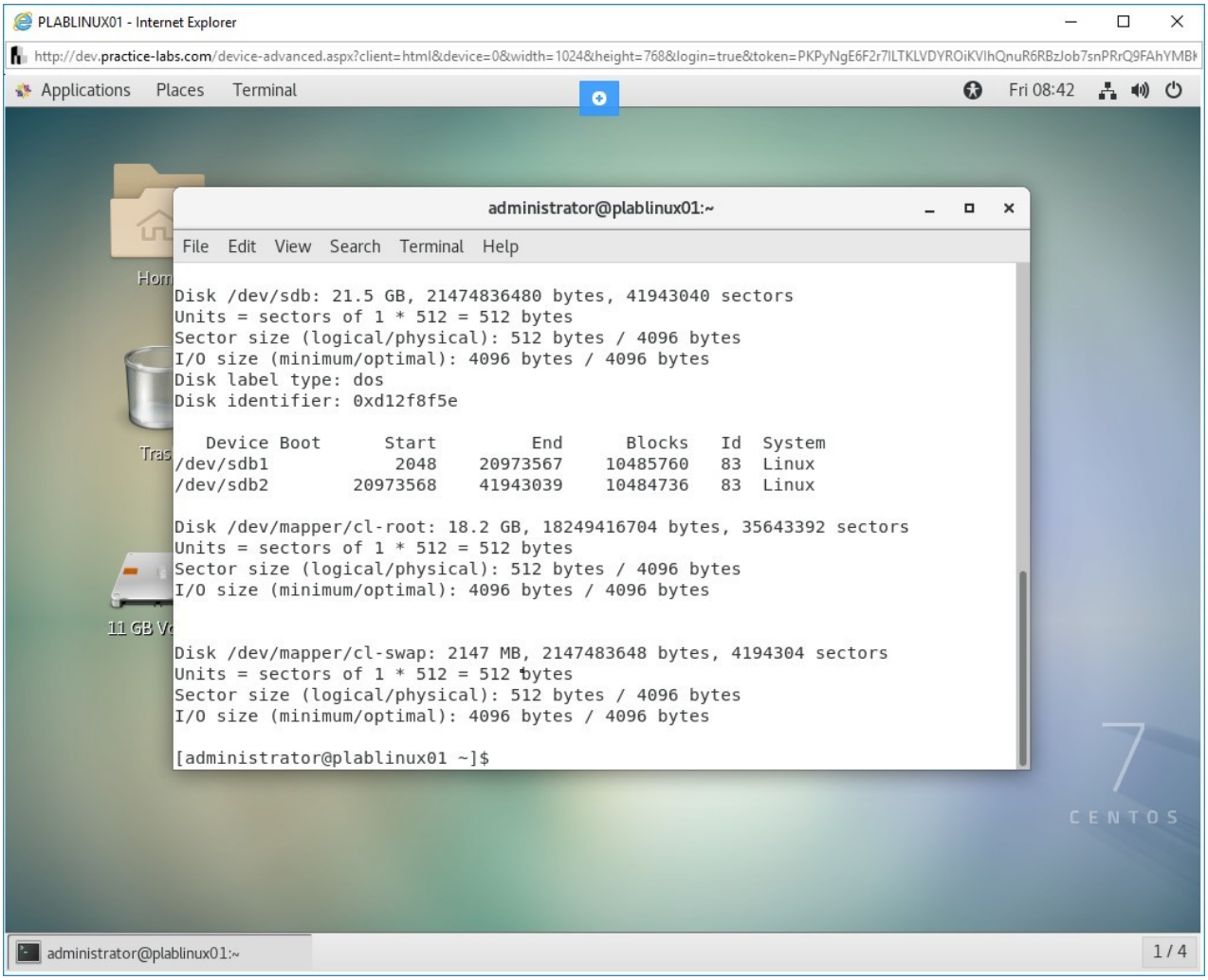


Figure 1.8 Screenshot of PLABLINUX01: Executing the fdisk command.

Step 9

The **df** utility is meant to list the disk space usage on filesystems. Type the following command:

```
df
```

Press **Enter**.

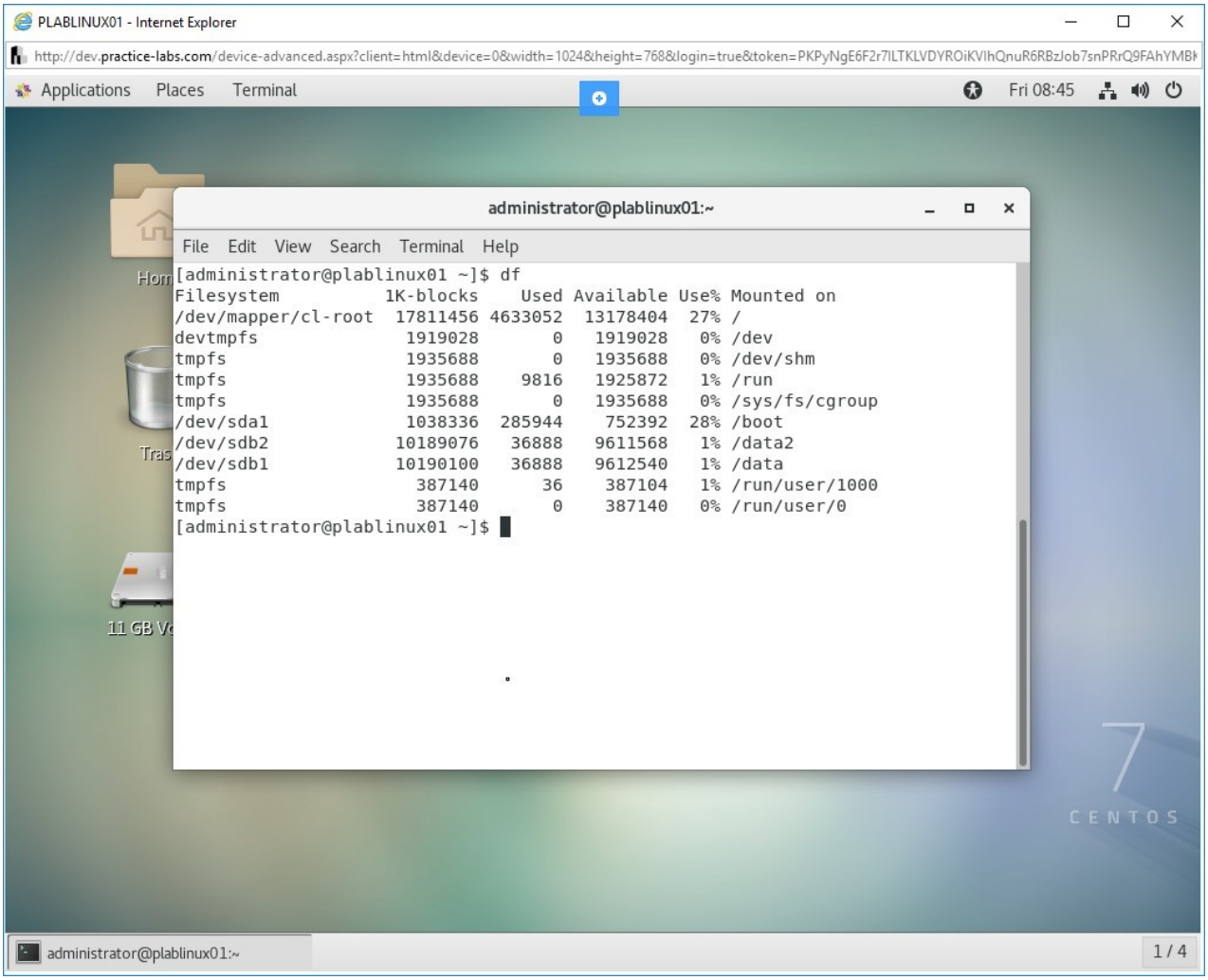


Figure 1.9 Screenshot of PLABLINUX01: Executing the df command.

Step 10

The **lsscsi** utility is meant to list the SCSI devices on a system. Type the following command:

```
lsscsi
```

Press **Enter**.

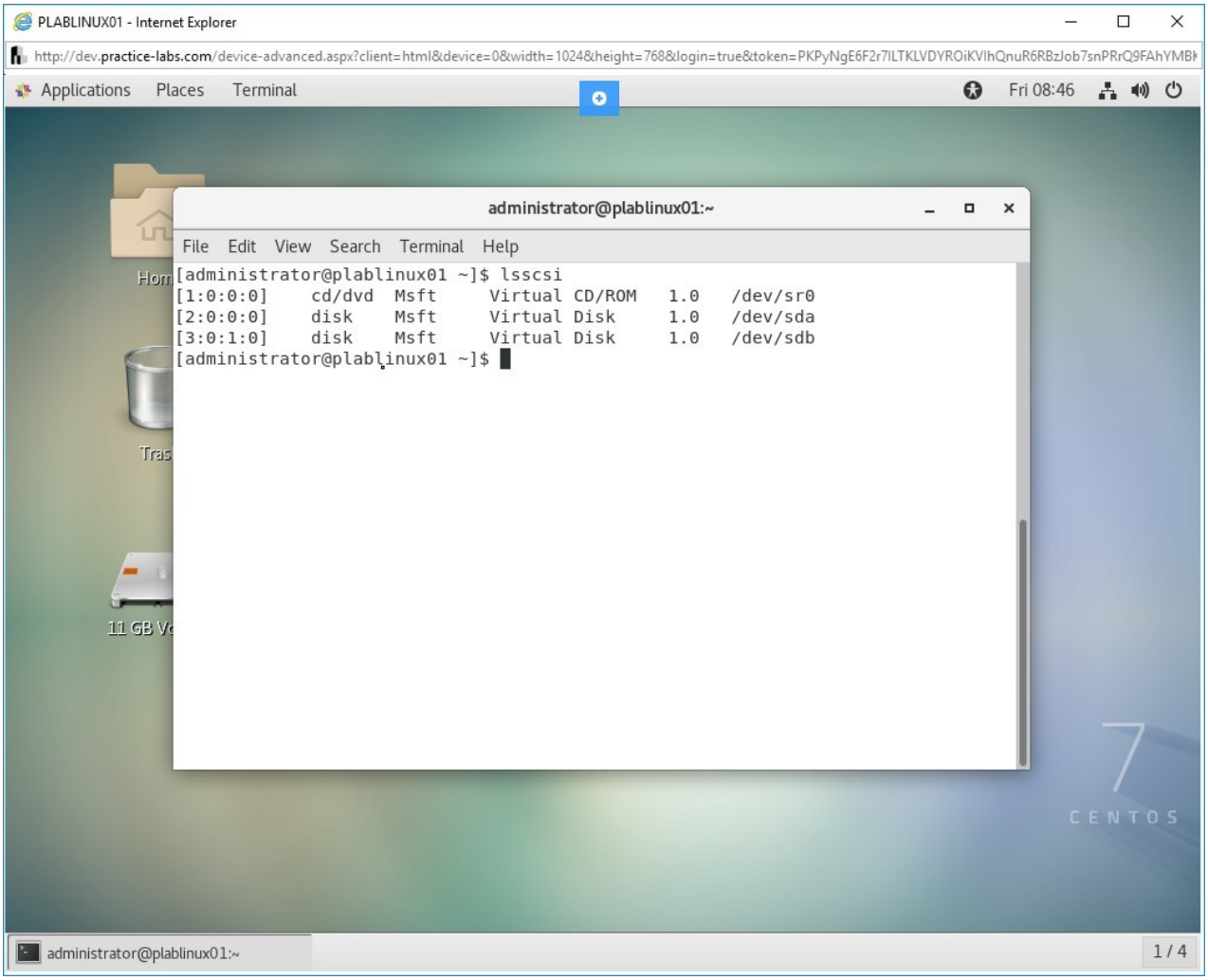


Figure 1.10 Screenshot of PLABLINUX01: Executing the lsscsi command.

Step 11

The **smartctl** utility is meant to print the drive information. Type the following command:

```
sudo smartctl -i /dev/sda
```

Press **Enter**.

If prompted, type the following password:

`Passw0rd`

Press **Enter**.

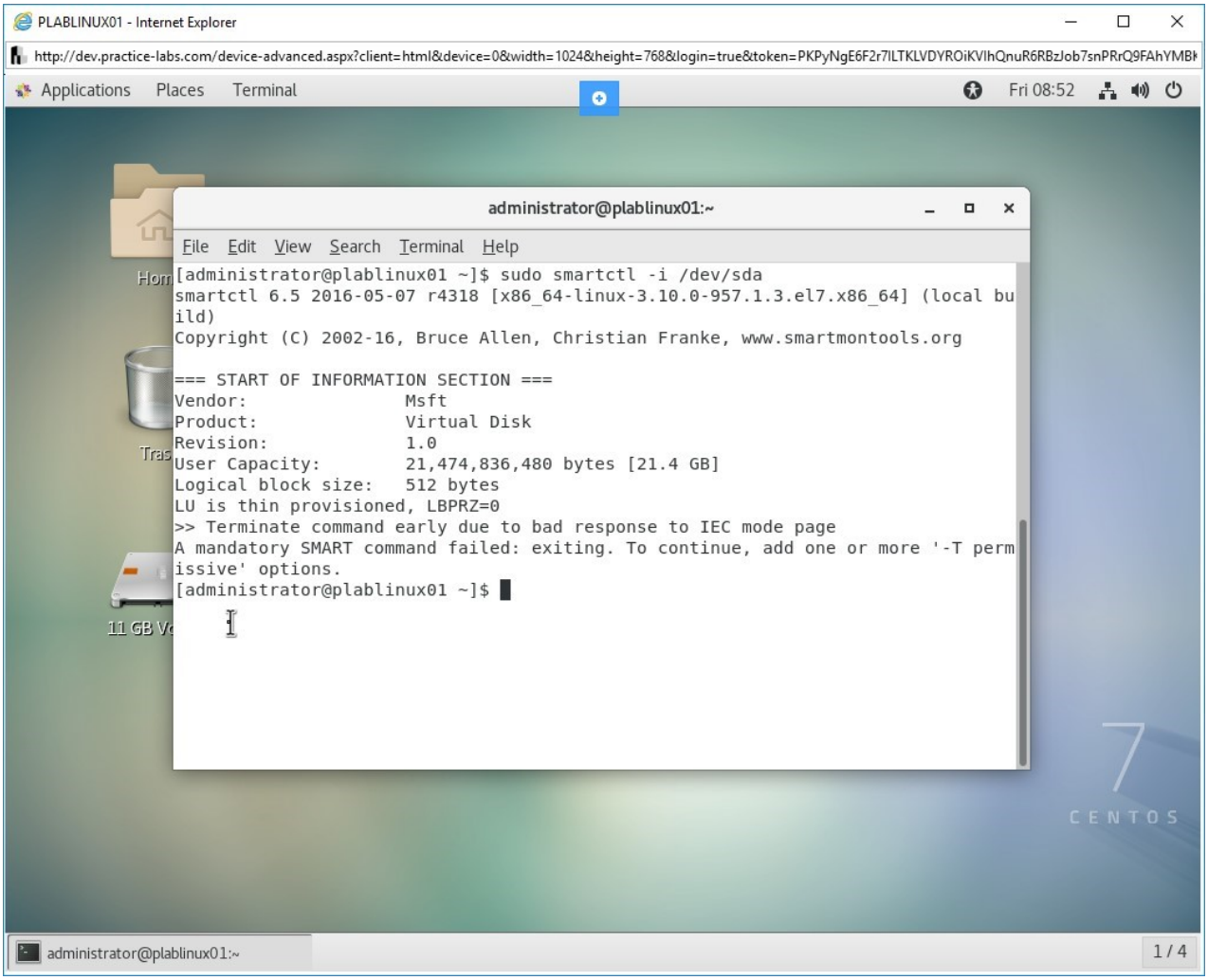


Figure 1.11 Screenshot of PLABLINUX01: Executing the smartctl command.

Step 12

You can determine the model and the serial number of your disk. Type the following command:

```
ls /dev/disk/by-id
```

Press **Enter**.

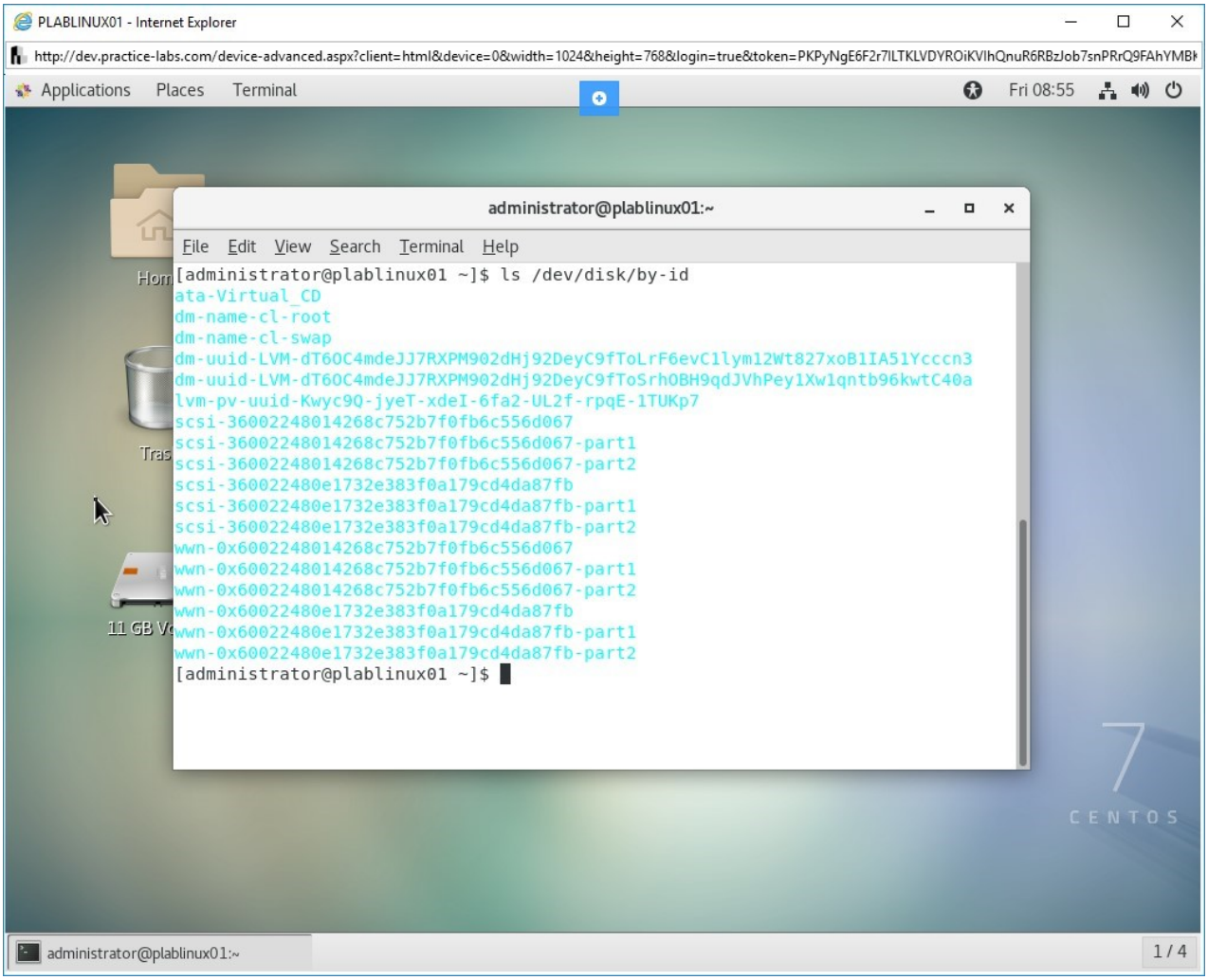


Figure 1.12 Screenshot of PLABLINUX01: Displaying the disks by disk id.

Keep all devices in their current state and proceed to the next exercise.

Review

Well done, you have completed the **View the Hard Drive Details** Practice Lab.

Summary

You completed the following exercise:

- Exercise 1 - View the Hard Drive Details

You should now be able to:

- Use various methods to view hard drive details

Feedback

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