CompTIA Linux+

Work with TTY

Introduction

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

TTY
Linux System
Logind.conf

Learning Outcomes

In this module, you will complete the following exercise:

- Exercise 1 - Work with TTY

After completing this lab, you will be able to:

- Enable and disable TTYs
- View the logind.conf File

Exam Objectives

The following exam objectives are covered in this lab:

- **LPI:** 110.3 Securing data with encryption
- **CompTIA:** 3.2 Given a scenario, configure and implement appropriate access and authentication methods.

Lab Duration

It will take approximately **30 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.

PLABSA01
Windows Server 2016
192.168.0.1

PLABLINUX01
CentOS Server
192.168.0.2

PLABLINUX02
Ubuntu Server
192.168.0.3

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)

Exercise 1 - Work with TTYs

By default, getty, or the get tty, processes are started only on the first six virtual consoles in CentOS. A getty process is responsible for managing the virtual consoles, which are TTYs. The getty process is started only the TTY that is invoked.

In this exercise, you will work with TTYs.

Learning Outcomes

After completing this exercise, you will be able to:

- Log into a Linux System
- Enable and disable TTYs
- View the logind.conf File

Your Devices

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

- **PLABLINUX01** (CentOS Server)

PLABLINUX01
CentOS Server
192.168.0.2

Task 1 - Enable and Disable TTYs

A user can toggle between the TTY consoles using the Ctrl+Alt+F[1-6] keys. Even though there are six TTY consoles, they are created on the fly. The **systemd** process in CentOS and many other flavors of Linux manages the TTY consoles.

In this task, you will enable and disable TTYs.

To enable and disable TTYs, perform the following steps:

Step 1

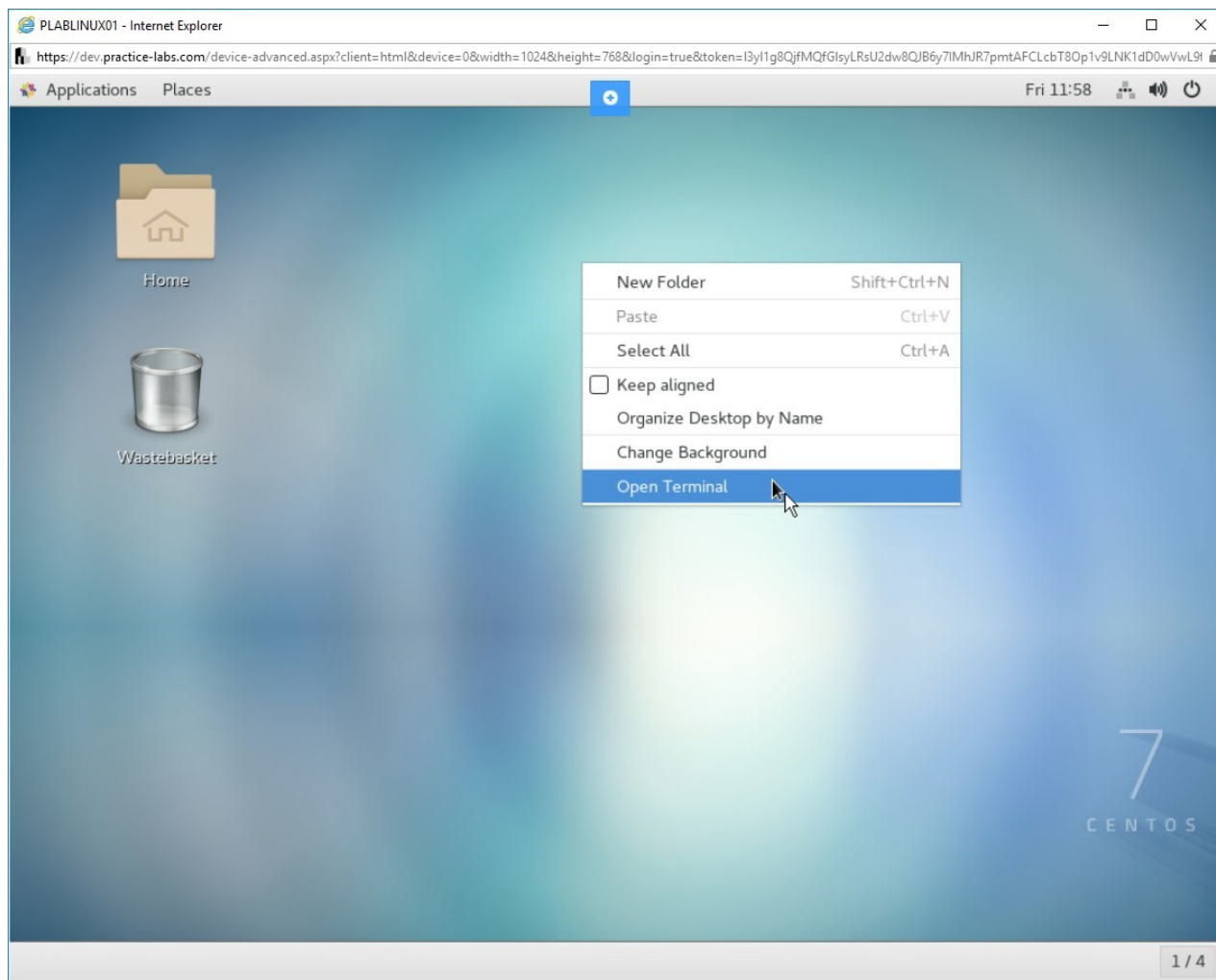On the desktop, right-click and select **Open Terminal**.

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

Step 2

The terminal window is displayed.

You can check the active TTY connections. Type the following command:
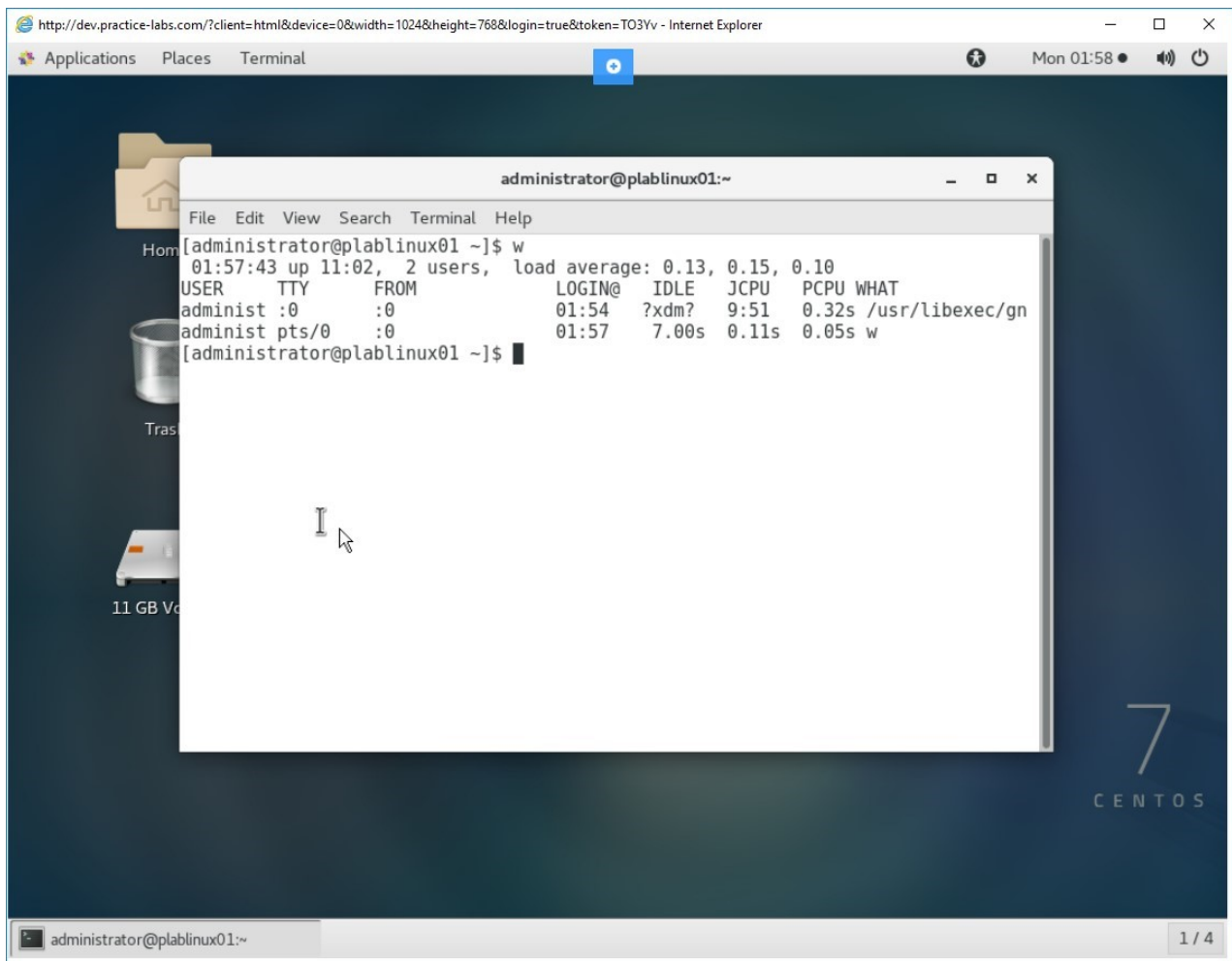
```
w
```

Press **Enter.**

Figure 1.2 Screenshot of PLABLINUX01: Checking the active TTY connections.

Step 3

Let's first start a TTY. You can start TTY 3. Press the following keys:

```
Ctrl+Alt+F3
```
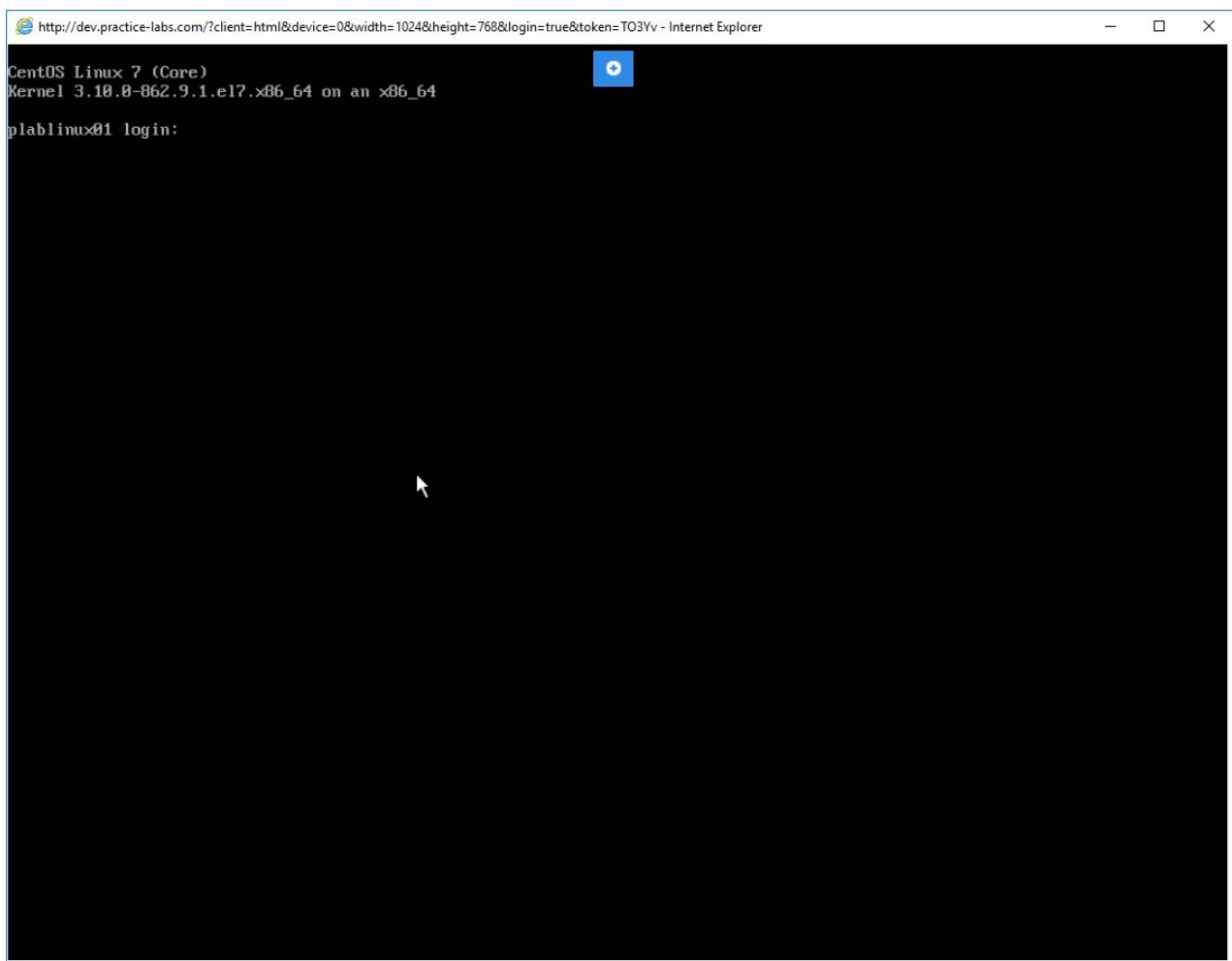
Notice that you are now in the command window.

Figure 1.3 Screenshot of PLABLINUX01: Starting the TTY3.

Step 4

Press the following keys to come back to the graphical mode:

```
Ctrl+Alt+F1
```
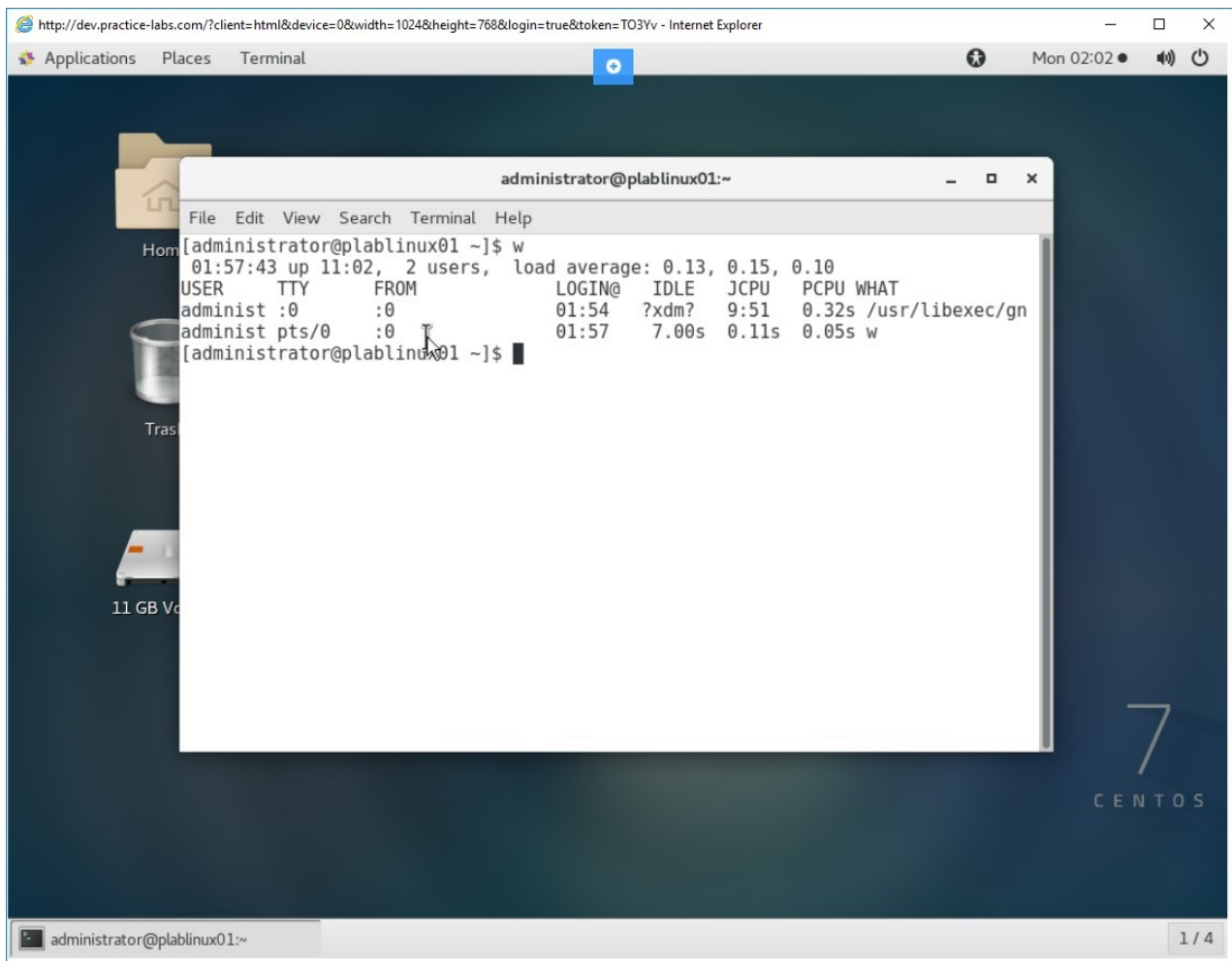
Notice that you are now in the graphical window.

Figure 1.4 Screenshot of PLABLINUX01: Switching back to TTY 1.

Step 5

You can use the **ps** command to find out the process ID of the TTY consoles. Type the following command:
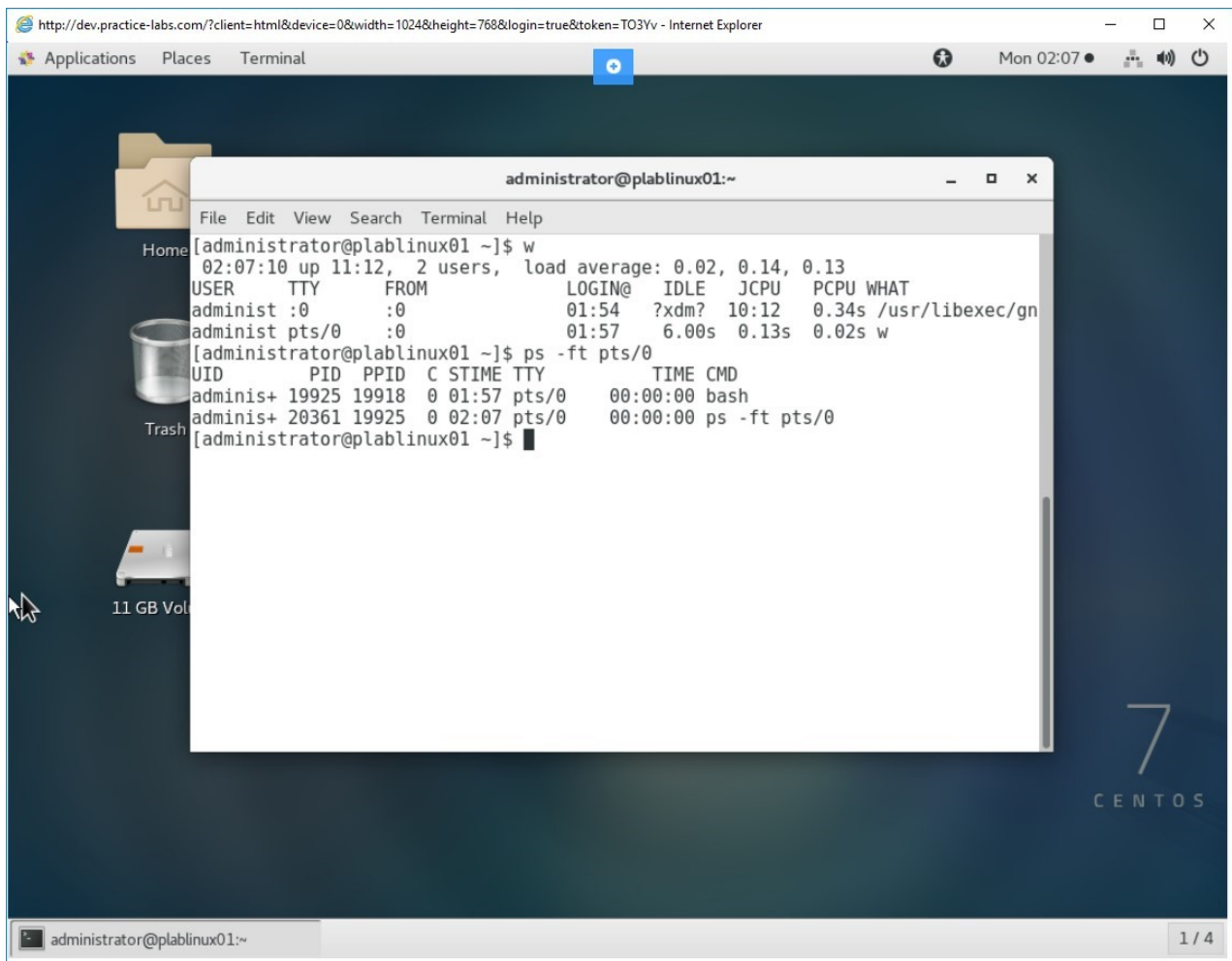
```
ps -ft pts/0
```

Press **Enter**.

Figure 1.5 Screenshot of PLABLINUX01: Viewing the process IDs of the TTY consoles.

Step 6

You can use the **kill** command to kill a TTY console using its process ID. Type the following command:

```
kill 19925
```

Press **Enter**.

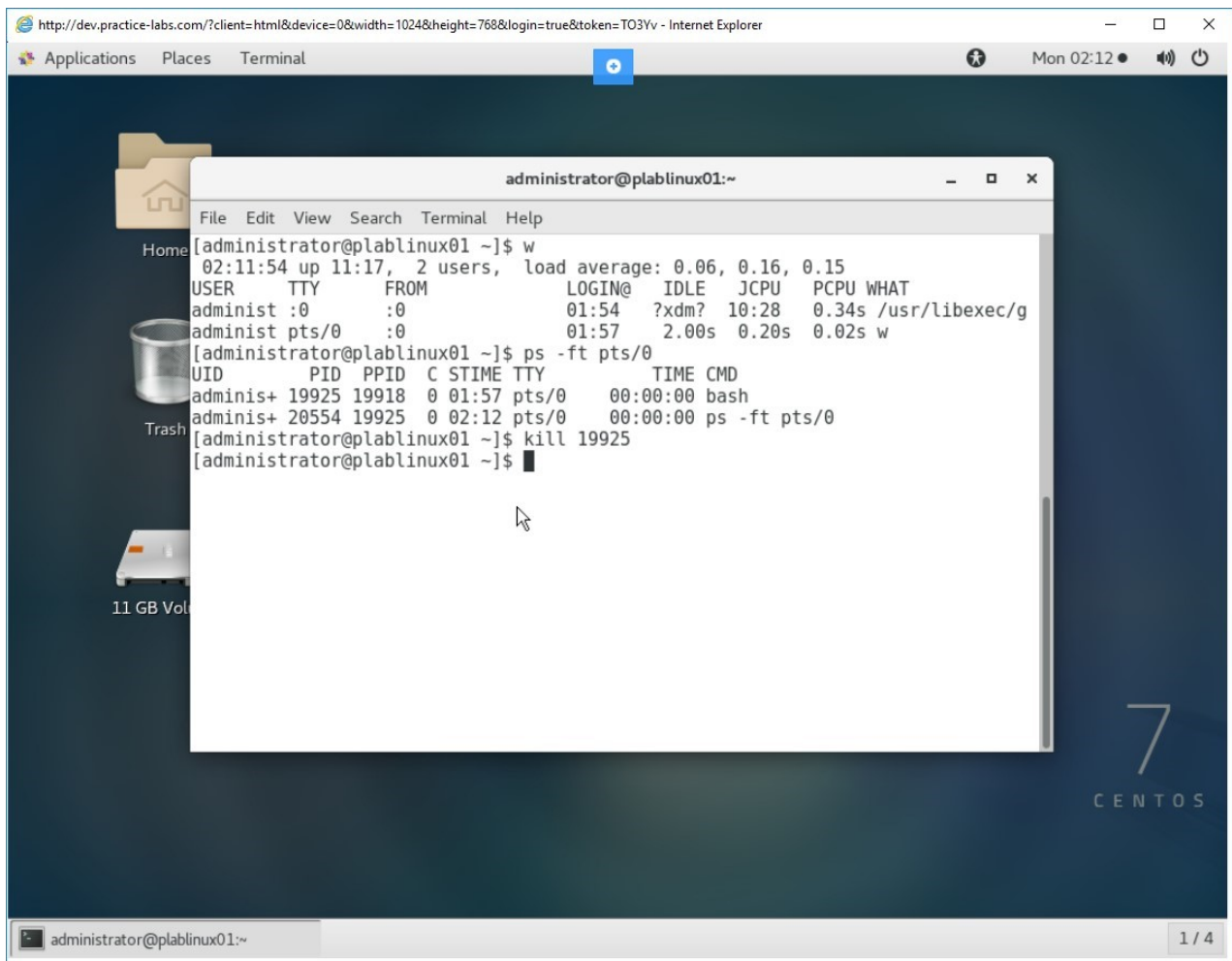*Note: In your lab environment, the process IDs will differ. Use the process ID that you see.*

Figure 1.6 Screenshot of PLABLINUX01: Killing the TTY connection using its process ID.

Step 7

Clear the screen by entering the following command:

```
clear
```

To kill a TTY connection forcefully, type the following command:

```
pkill -9 -t pts/0
```

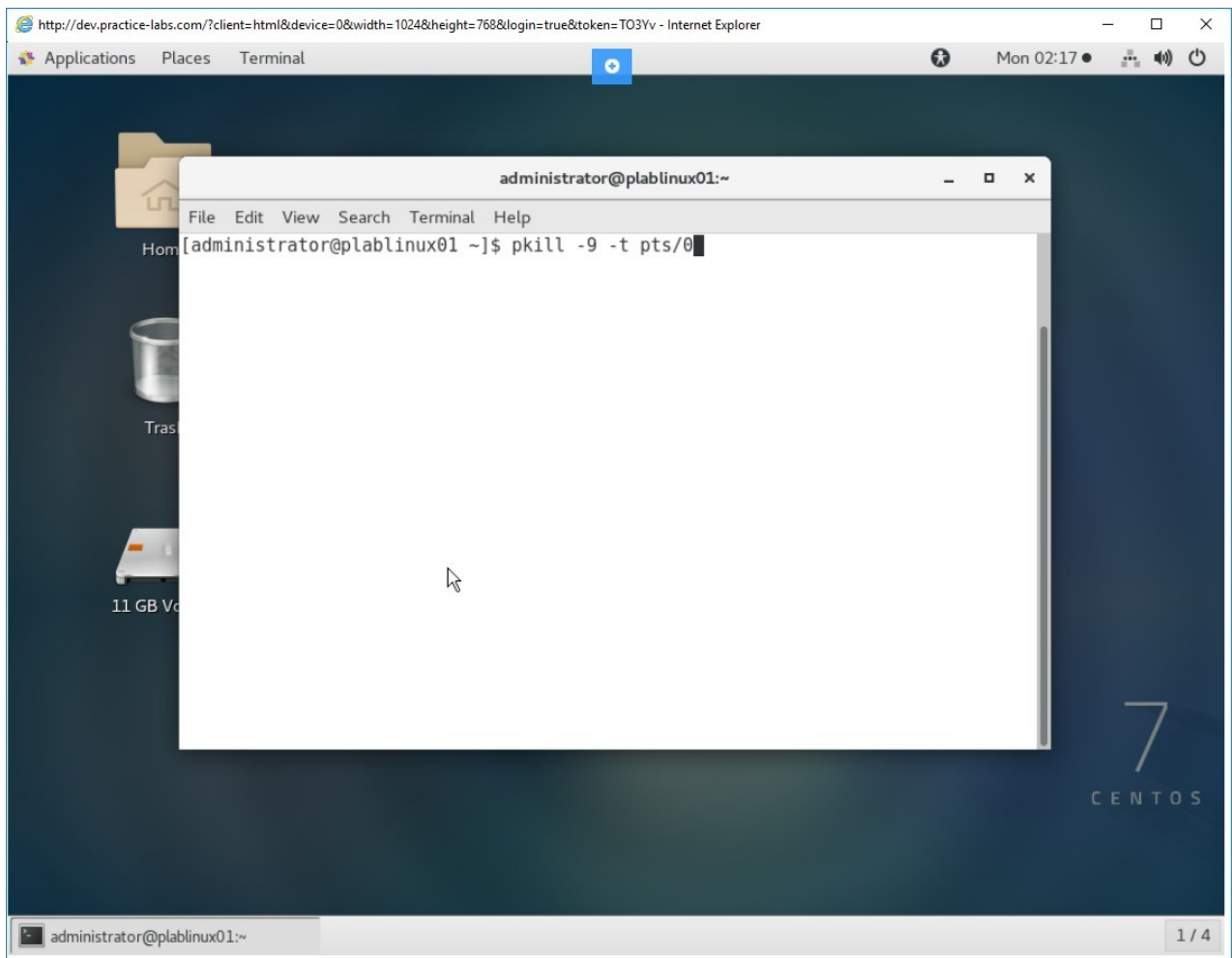Press **Enter**. Notice that the terminal window will close.

Figure 1.7 Screenshot of PLABLINUX01: Killing a TTY connection forcefully.
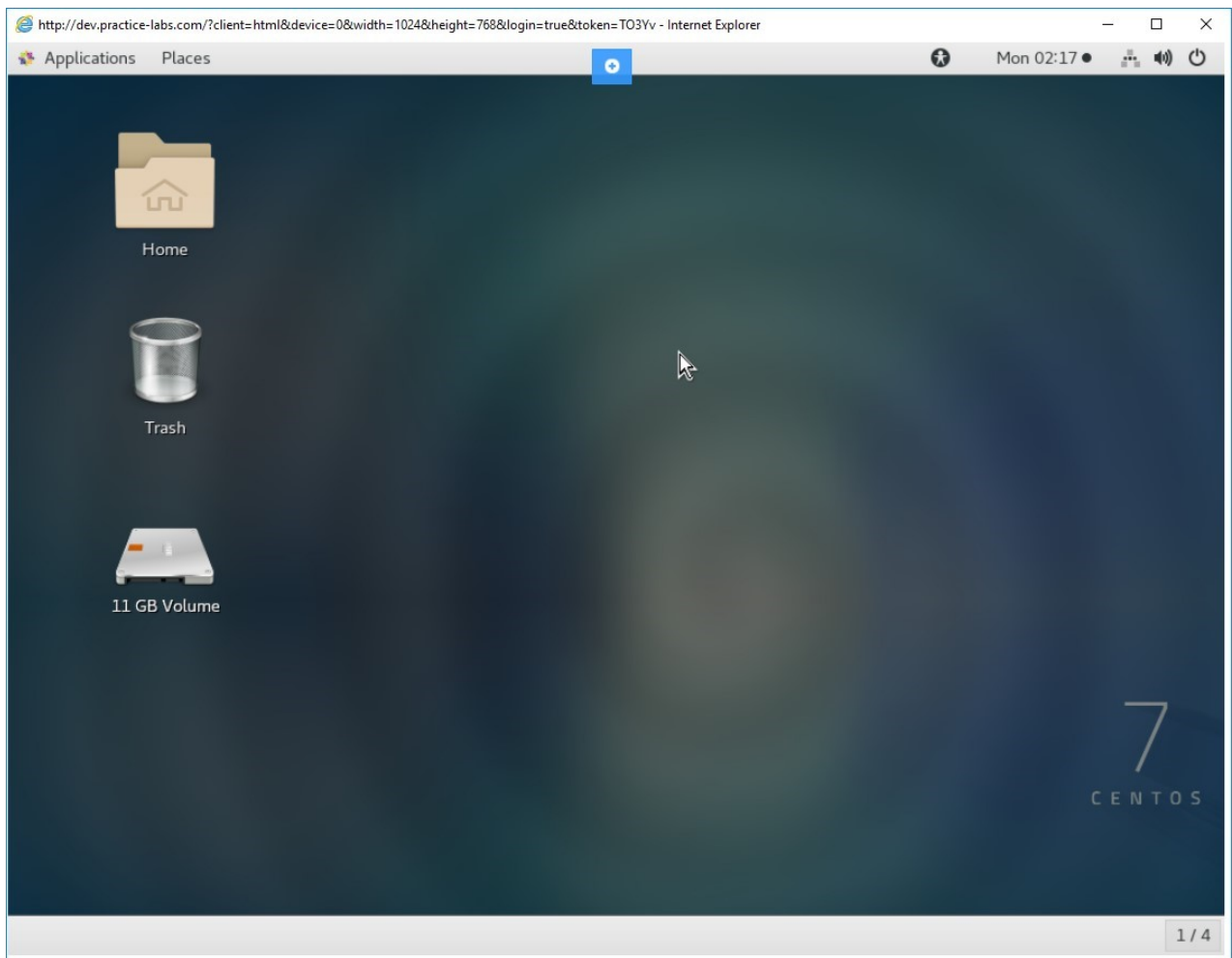
Step 8

You are now on the desktop.

Figure 1.8 Screenshot of PLABLINUX01: Navigating back to the desktop.

Step 9

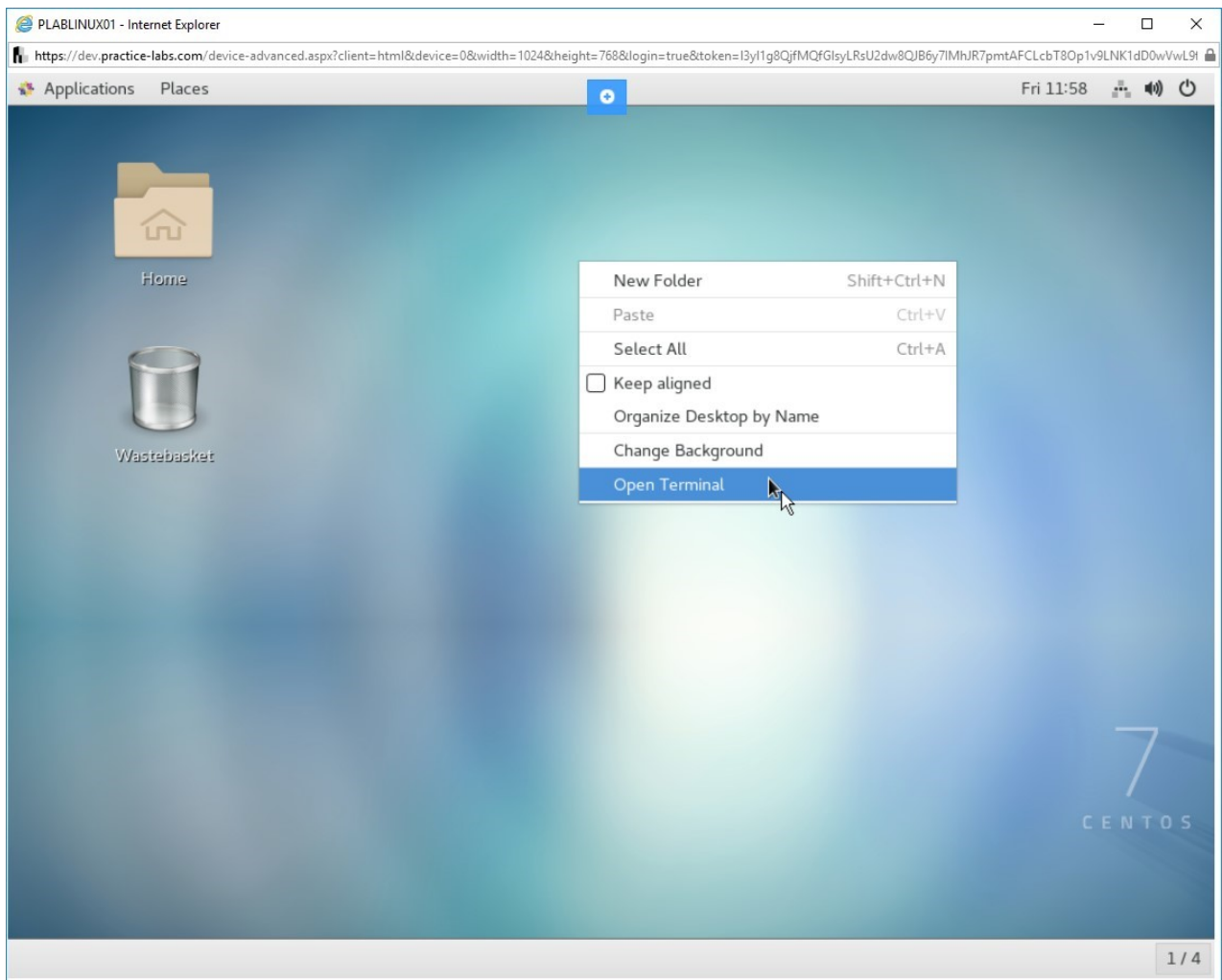On the desktop, right-click and select **Open Terminal**.

Figure 1.9 Screenshot of PLABLINUX01: Selecting the Open Terminal option from the context menu.

Step 10

The terminal window is displayed.

You can check for the current TTY console. Type the following command:
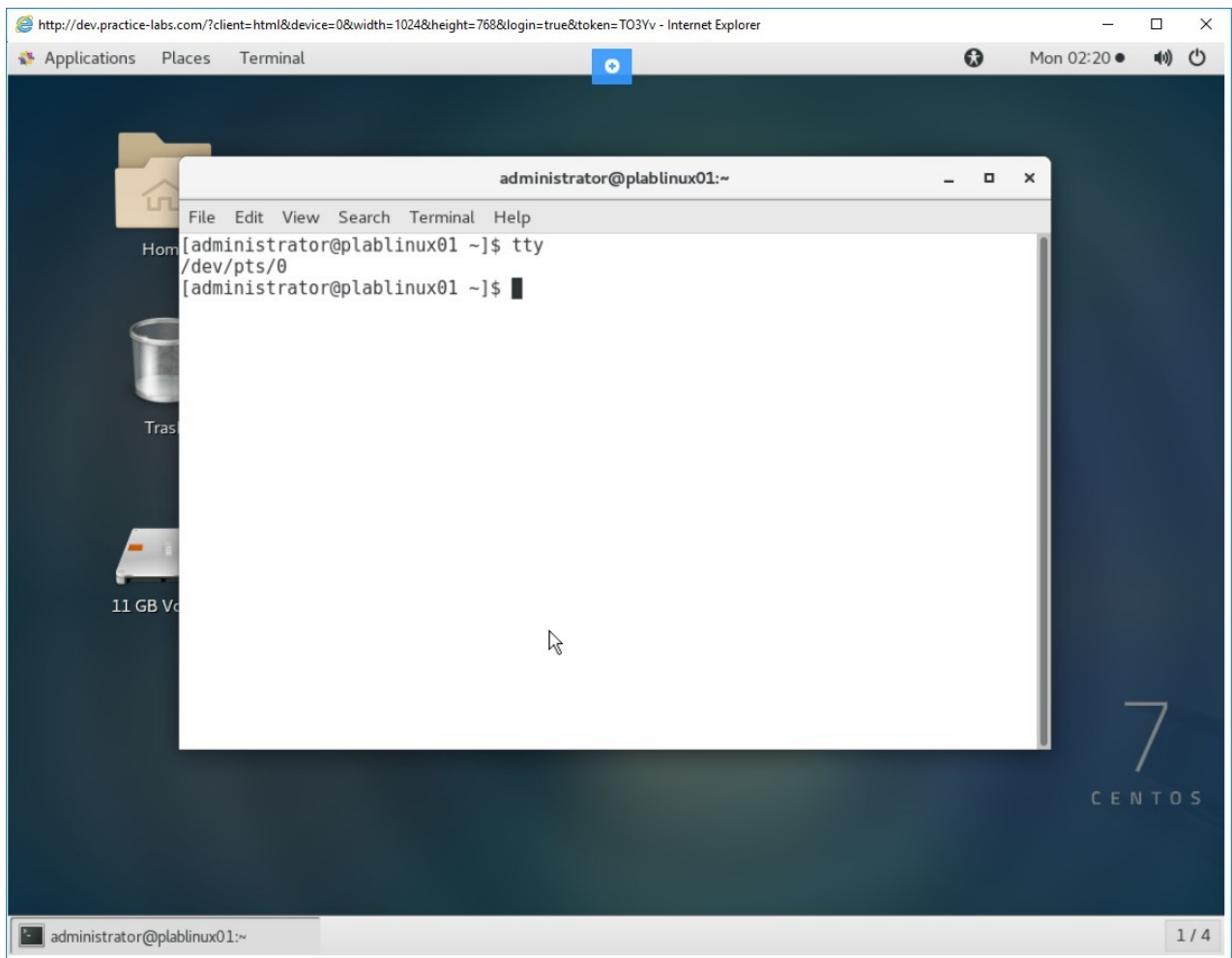
```
tty
```

Press **Enter**.

Figure 1.10 Screenshot of PLABLINUX01: Viewing the current TTY console.

Step 11

You can check for the current TTY console using the **ps** command as well. Type the following command:
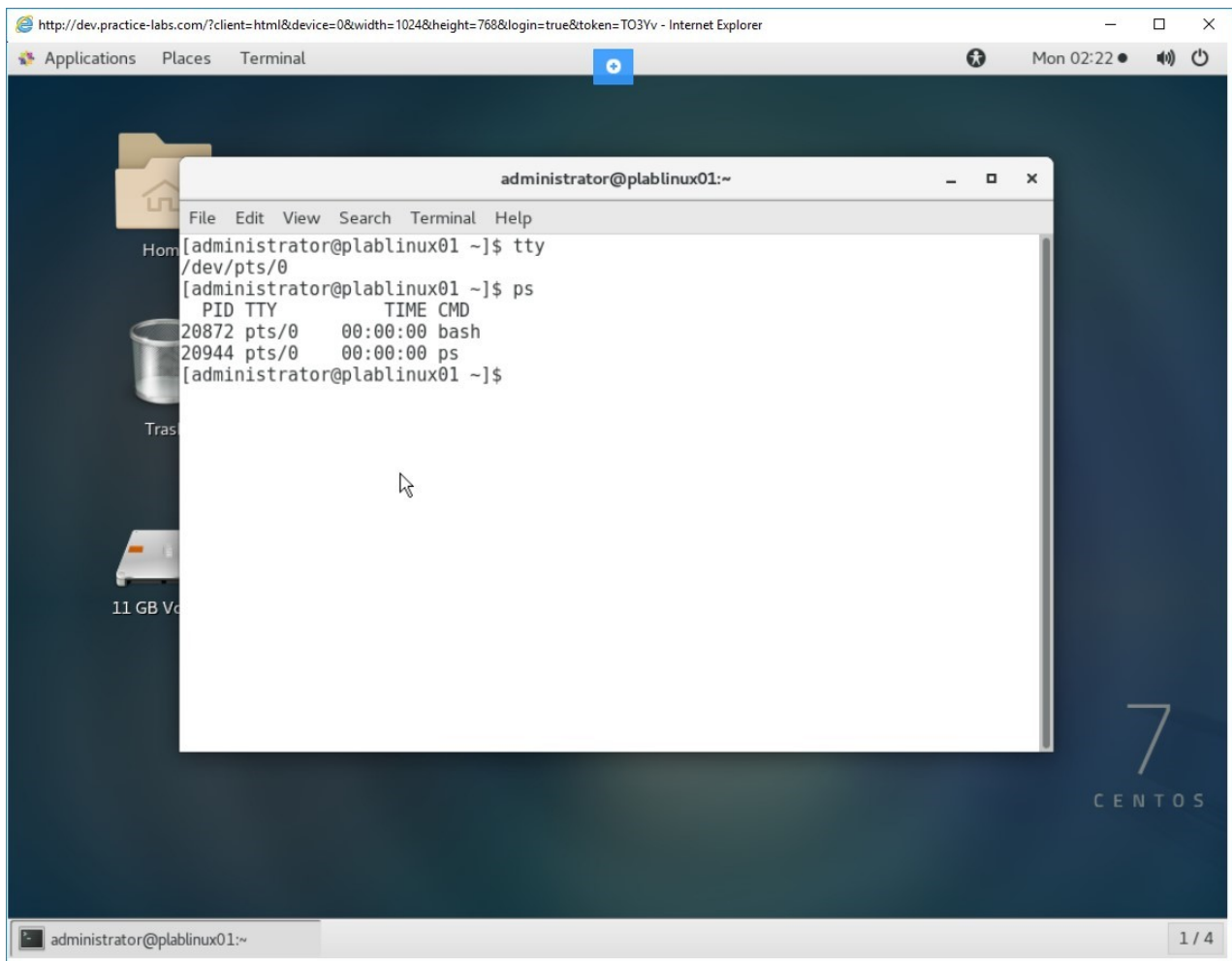
```
ps
```

Press **Enter**.

Figure 1.11 Screenshot of PLABLINUX01: Viewing the current TTY console using the ps command.

Step 12

In one of the previous steps, you had opened the TTY 3 console. You can verify if the TTY console is still open. Type the following command:

```
ps -ef | grep tty
```

Press **Enter**. You can kill a TTY console by using the **kill** command.

> *Note: At this point, attempt to kill the tty3 process. Start multiple TTY consoles and then use this command again to kill each one. Try killing tty1 as well.*
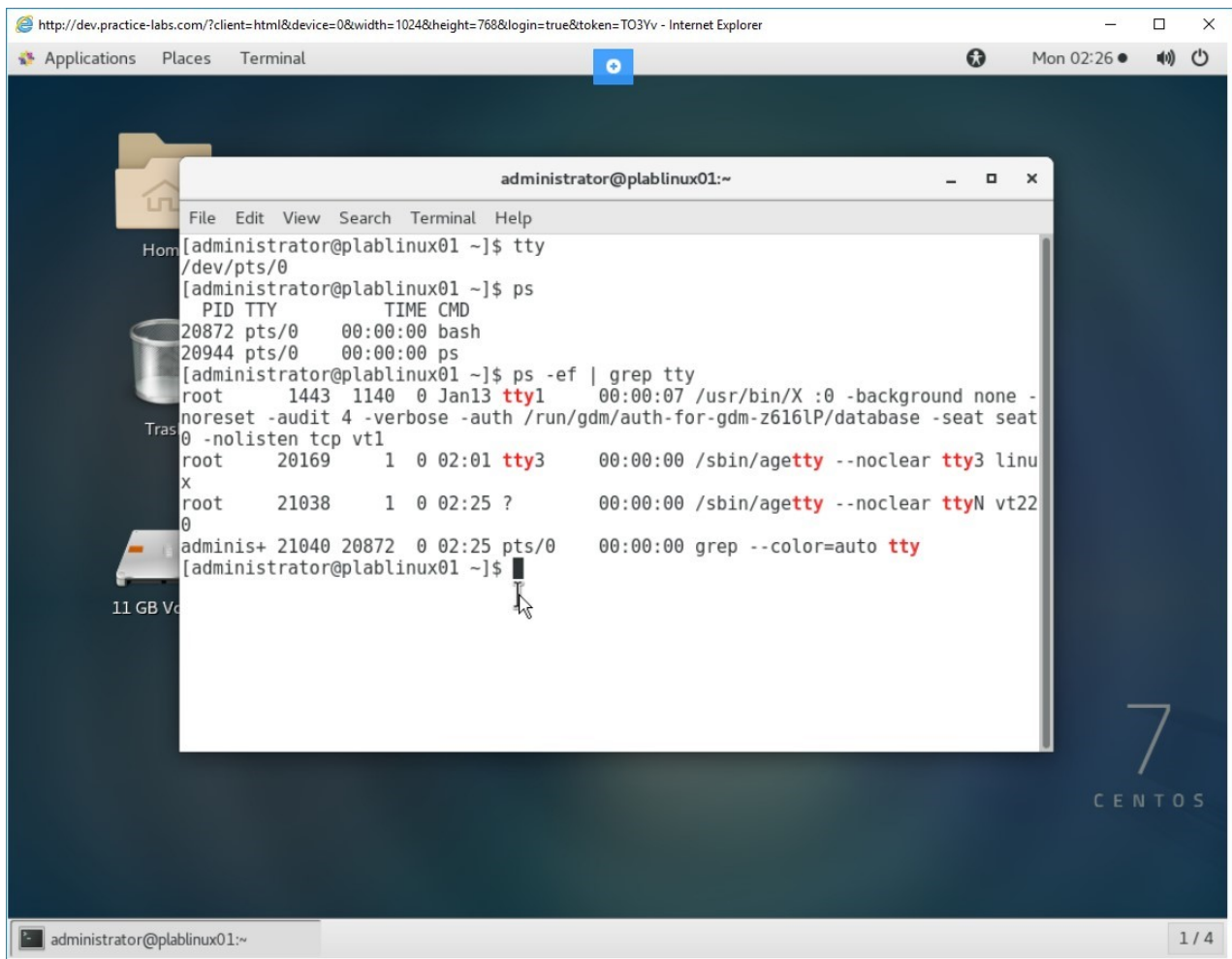
Figure 1.12 Screenshot of PLABLINUX01: Viewing the current running TTY consoles.

Task 2 - View the logind.conf File

You can control the use of TTY consoles using the **/etc/systemd/logind.conf.** In this file, you can configure the allowed number of TTY consoles.

In this task, you will browse through the logind.conf file.

To use the logind.conf file, perform the following steps:

Step 1

Clear the screen by entering the following command:

```
clear
```

To view the file, type the following command:

```
cat /etc/systemd/logind.conf
```
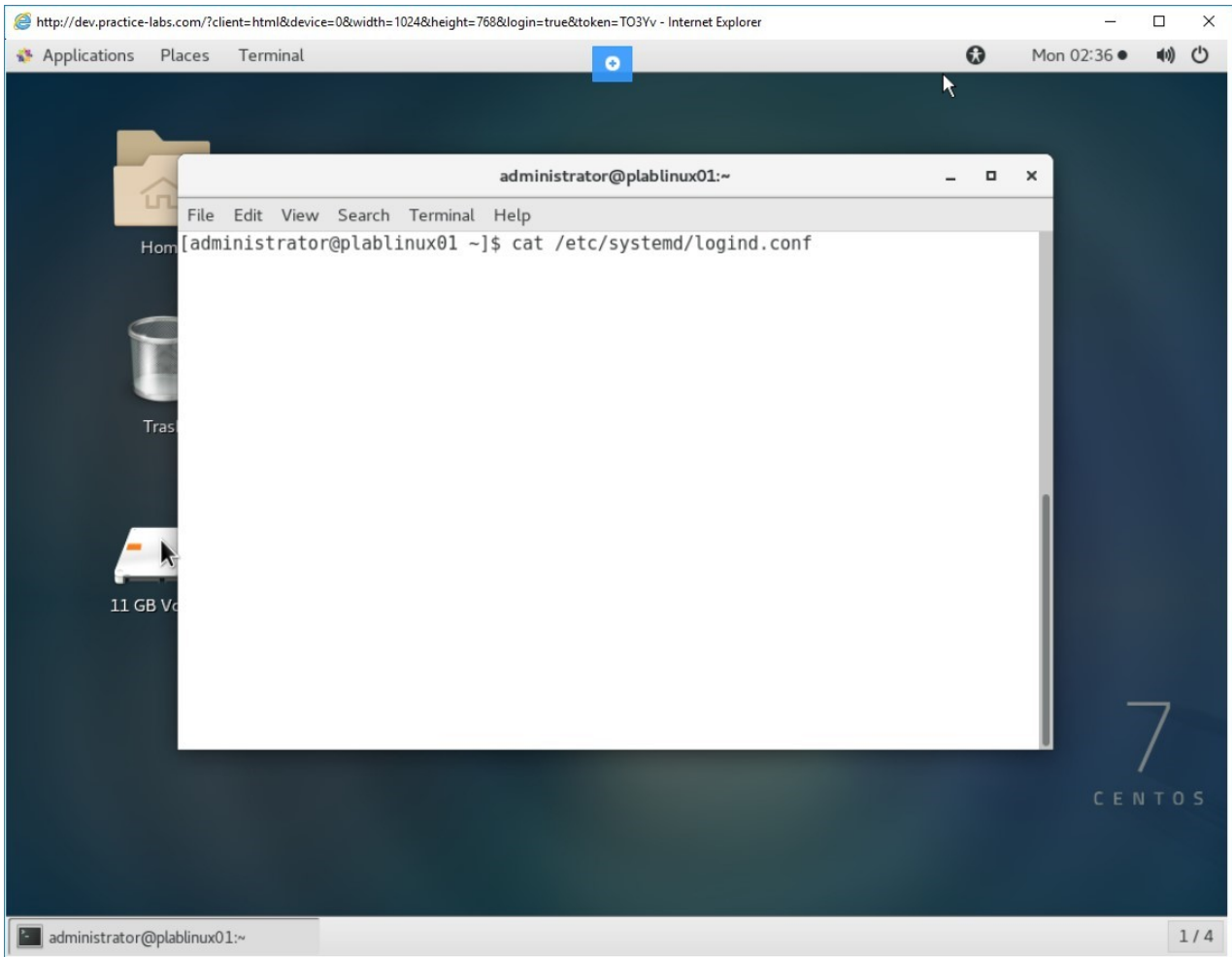
Press **Enter**.

Figure 1.13 Screenshot of PLABLINUX01: Executing the command to open the /etc/system/logind.conf file.

Step 2

The file is opened. Notice some of the key parameters:

- **NAutoVTs**: Default setting is 6. You can set it to any number from 0 to 6. If set to 0, the automatic spawning of **autovt services** is disabled.
- **ReserveVT**: Requires a positive integer.
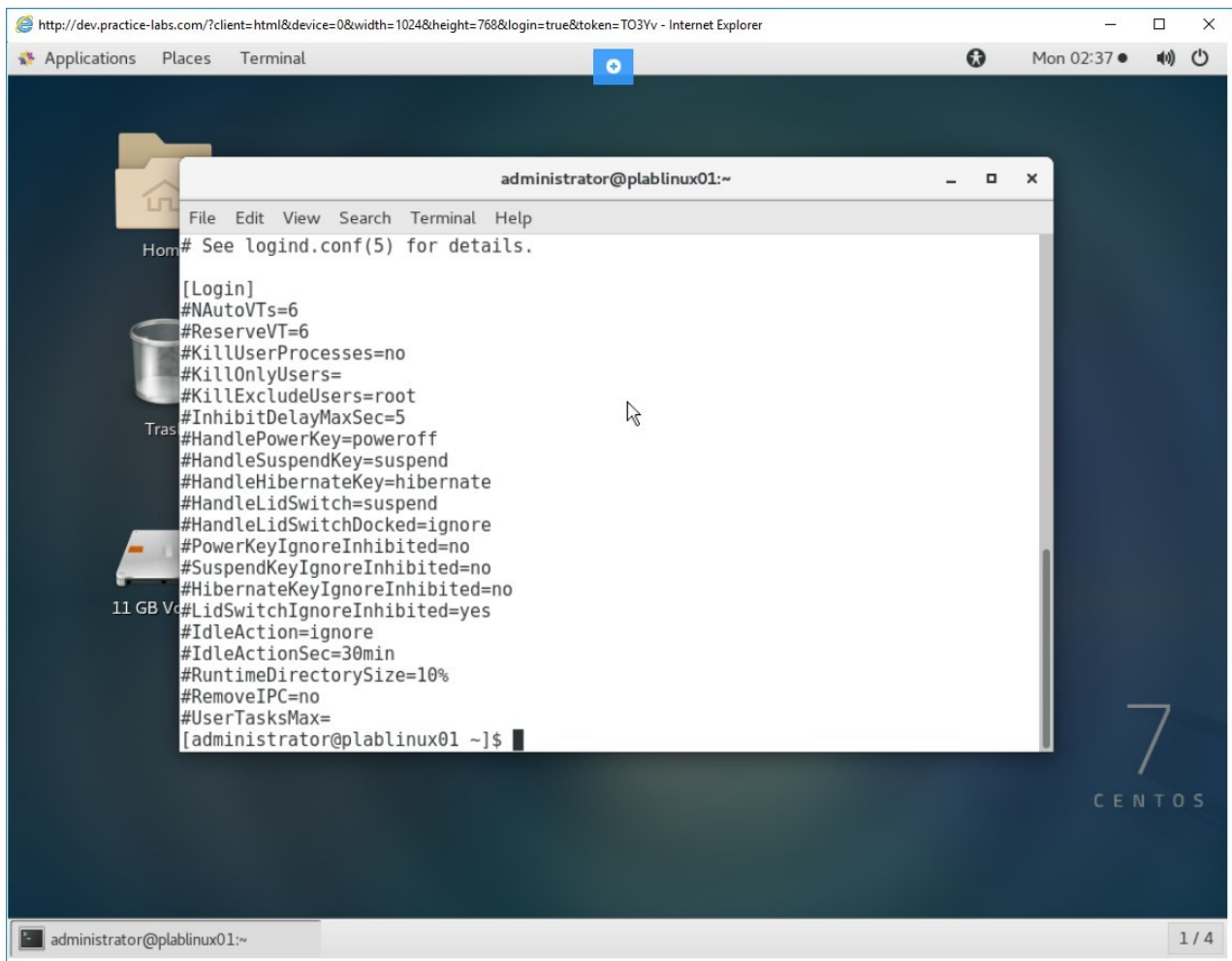
Note: You can change the value of both the parameters.

Figure 1.14 Screenshot of PLABLINUX01: Viewing the /etc/system/logind.conf file.

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

Review

Well done, you have completed the **Work with TTY** Practice Lab.

Summary

You completed the following exercise:

- Exercise 1 - Work with TTY

You should now be able to:

- Enable and disable TTYs

- View the logind.conf File

Feedback

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