

# Change Runlevels and Shutdown or Reboot System

- **Introduction**
  - **Lab Topology**
  - **Exercise 1 - Change Runlevels and Shut down or Reboot System**
  - **Review**
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## Introduction

Welcome to the **Change Runlevels and Shutdown or Reboot System** Practice Lab. In this module you will be provided with the instructions and devices needed to develop your hands-on skills.

Runlevels

Shutdown

Reboot

## Learning Outcomes

In this module, you will complete the following exercise:

- Exercise 1 - Change Runlevels and Shutdown or Reboot System

After completing this lab, you will be able to:

- Configure a runlevel
- Switch among runlevels
- Shutdown and reboot the system from the command line
- Alert users before switching runlevels or other major system events
- Understand terms and utilities

## Exam Objectives

The following exam objectives are covered in this lab:

- **LPI:** 101.3 Change runlevels / boot targets and shutdown or reboot system
- **CompTIA:** 2.4 Given a scenario, manage services.

**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.

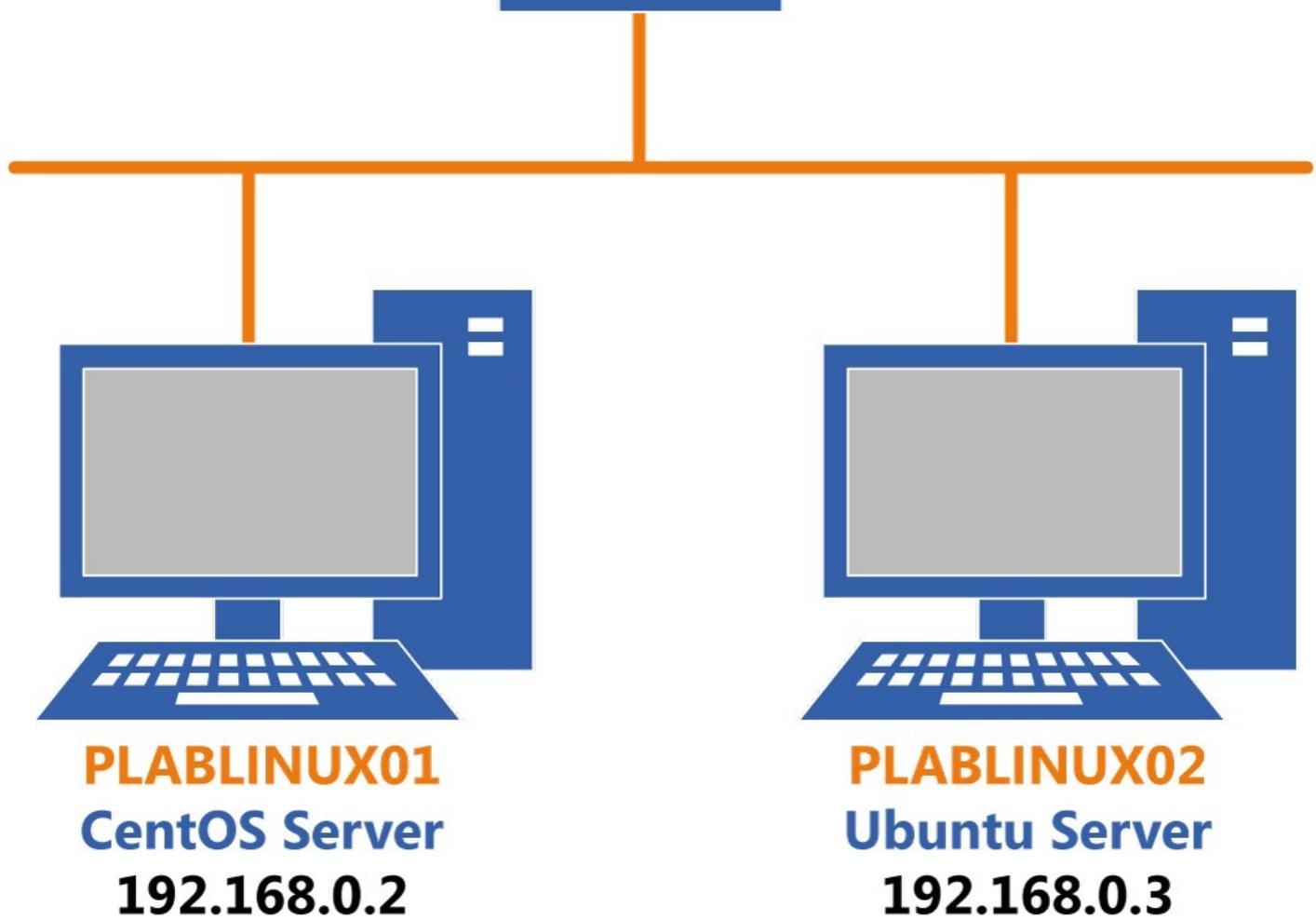
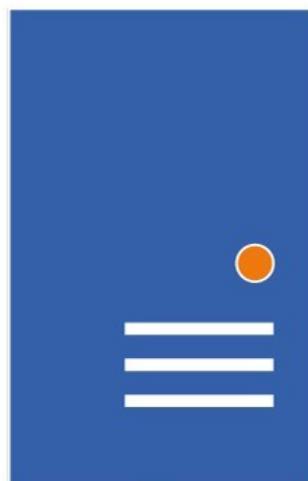
Click Next to view the Lab topology used in this module.

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## Lab Topology

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

**PLABSA01**  
**Windows Server 2016**  
**192.168.0.1**



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.

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## Exercise 1 - Change Runlevels and Shut down or Reboot System

A run level on a Linux system is the definition of what all services are running on the system. To run each service, relevant parameters need to be initialized in the init file. Therefore, each level defines the state of various parameters in the init file. Each run levels is referred to by a number. You can change between run levels to activate or shut down various services, as required.

**Note:** You can manage the services individually as well, without changing between the run levels.

In this exercise, you will understand how to change runlevels to shut down or reboot systems.

## Learning Outcomes

After completing this exercise, you will be able to:

- Log into a Linux System
- Configure a runlevel
- Switch among runlevels
- Shutdown and reboot the system from the command line
- Alert users before switching runlevels or other major system events
- Understand terms and utilities

## Your Devices

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

- **PLABLINUX01** (CentOS Server)



## Task 1 - Configure a Runlevel

You can add, delete, and manage services to configure a runlevel. In this task, you will configure a runlevel on the Fedora Linux machine on the lab.

To configure a runlevel, perform the following steps:

### Step 1

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

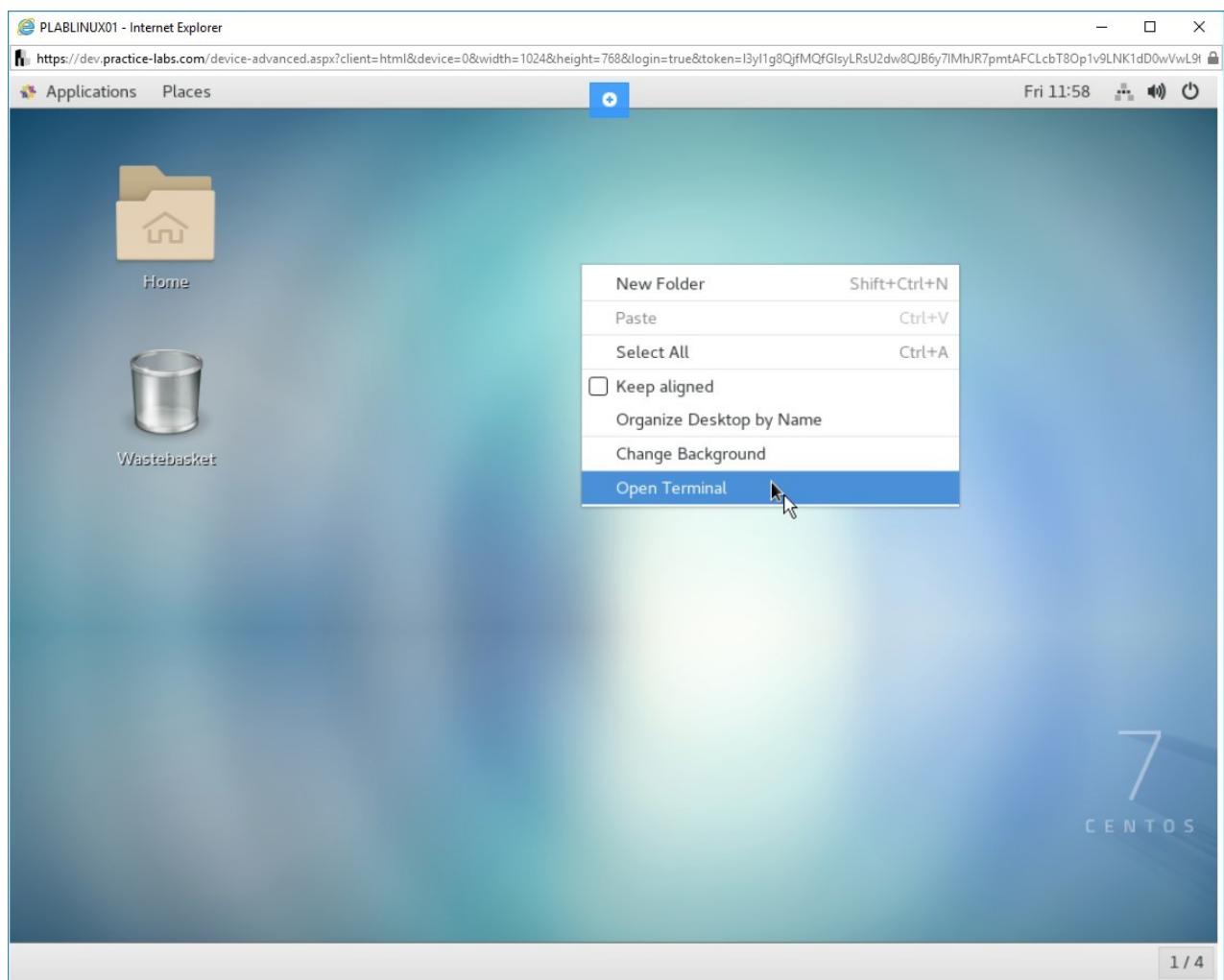


Figure 1.1 Screenshot of PLABLINUX01: Selecting the Open Terminal option from the context menu.

## Step 2

The command prompt window is displayed. Type the following command:

```
su -
```

Press **Enter**.

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

```
Passw0rd
```

Press **Enter**.

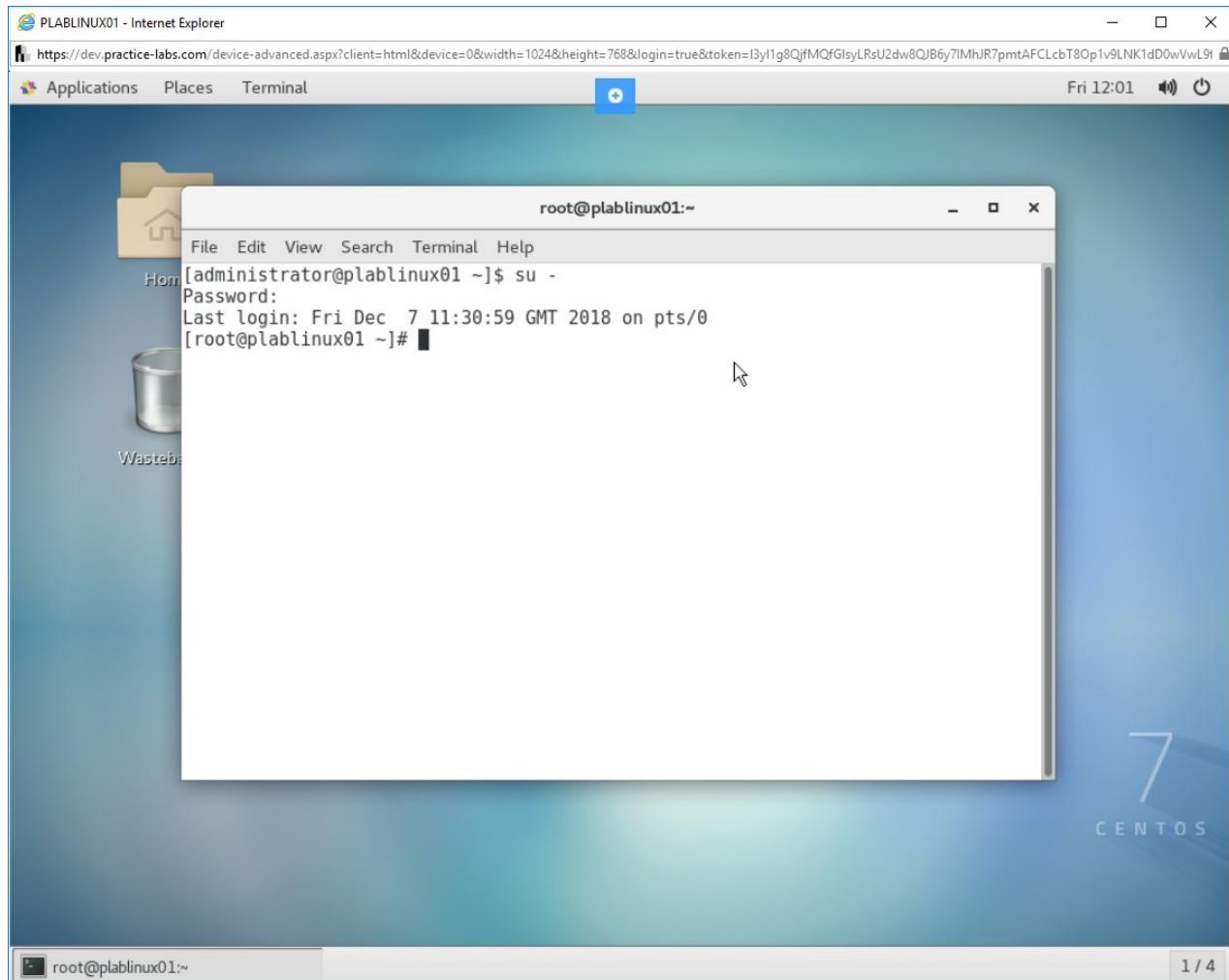


Figure 1.2 Screenshot of PLABLINUX01: Changing to the root account with the su command.

## Step 3

Clear the screen by entering the following command:

```
clear
```

To view the list of services running on the system, type the following command:

```
chkconfig --list
```

Press **Enter**.

**Note:** The list parameter requires a double dash (--) . If you attempt it with a single dash, you will be prompted with an error.

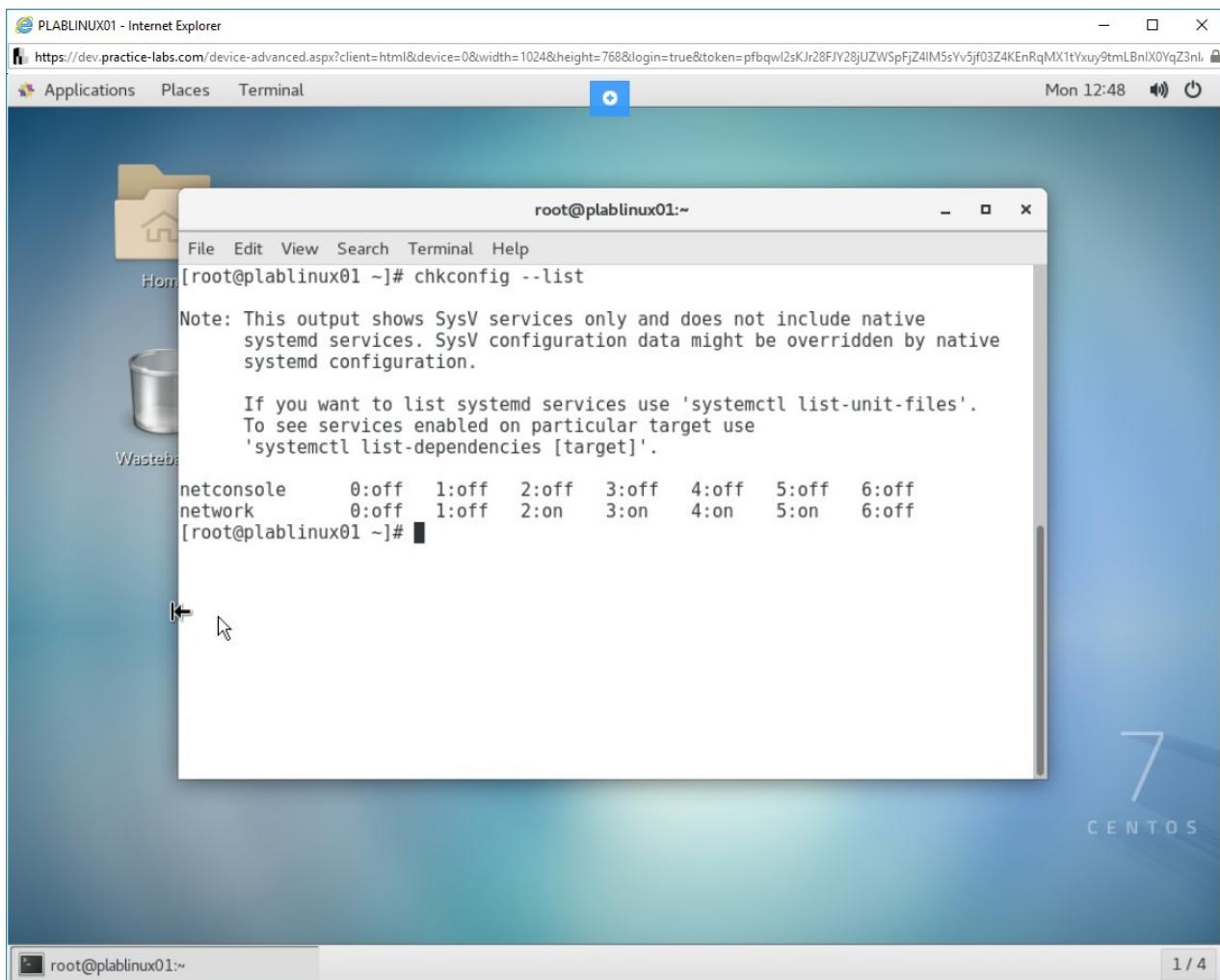


Figure 1.3 Screenshot of PLABLINUX01: Viewing the list of services running on the system.

## Step 4

On the list of services displayed, you can choose any service to delete.

For the demonstration purpose, **netconsole** services will be used.

To delete **netconsole**, type the following command:

```
chkconfig --del netconsole
```

Press **Enter**.

Type the following command to verify:

```
chkconfig --list
```

Press **Enter**.

**Note:** *The netconsole no longer exists.*

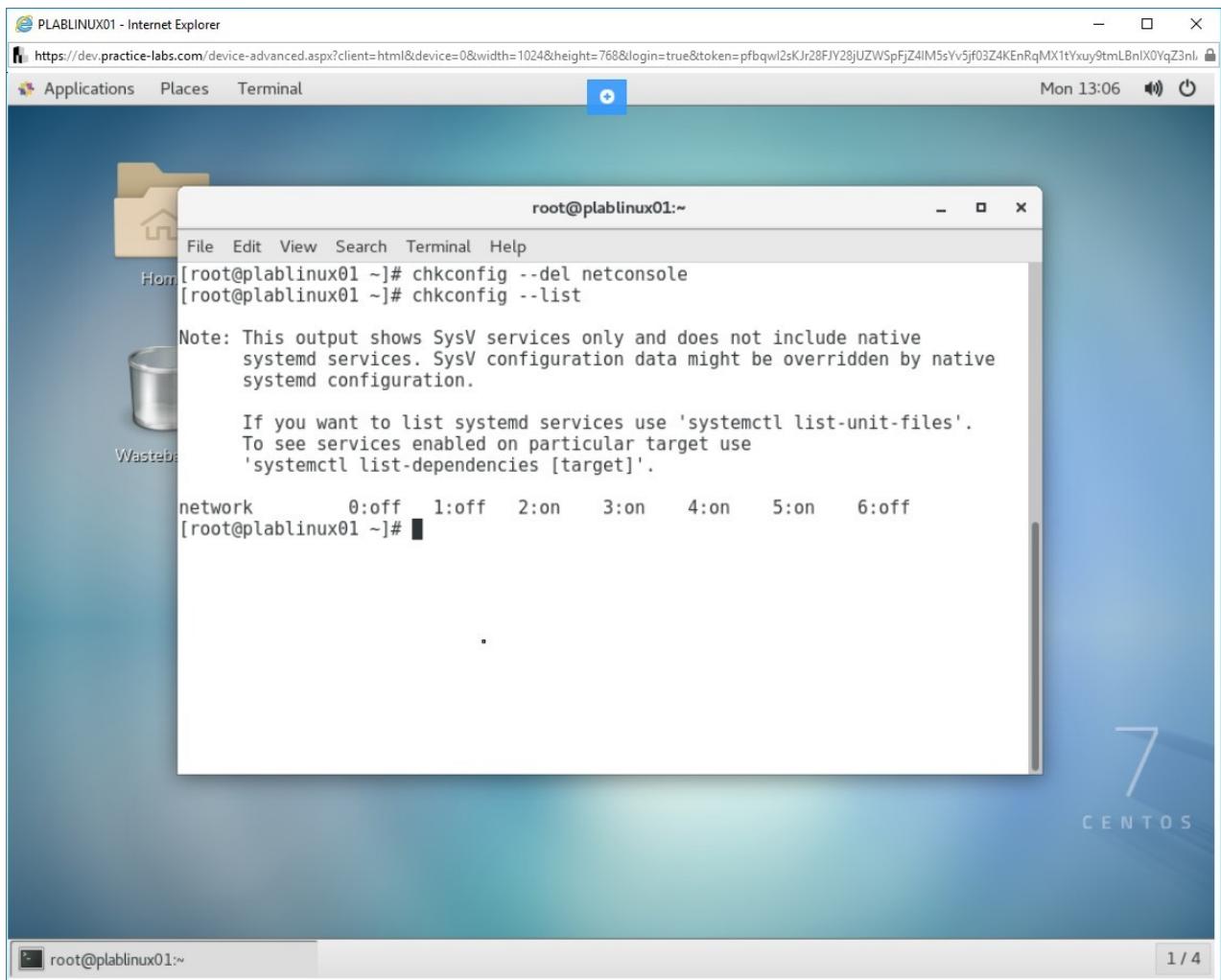


Figure 1.4 Screenshot of PLABLINUX01: Deleting the netconsole service and then confirming it has been deleting.

## Step 5

Clear the screen by entering the following command:

```
clear
```

Type the following command to add the **netconsole**.

```
chkconfig --add netconsole
```

Press **Enter**.

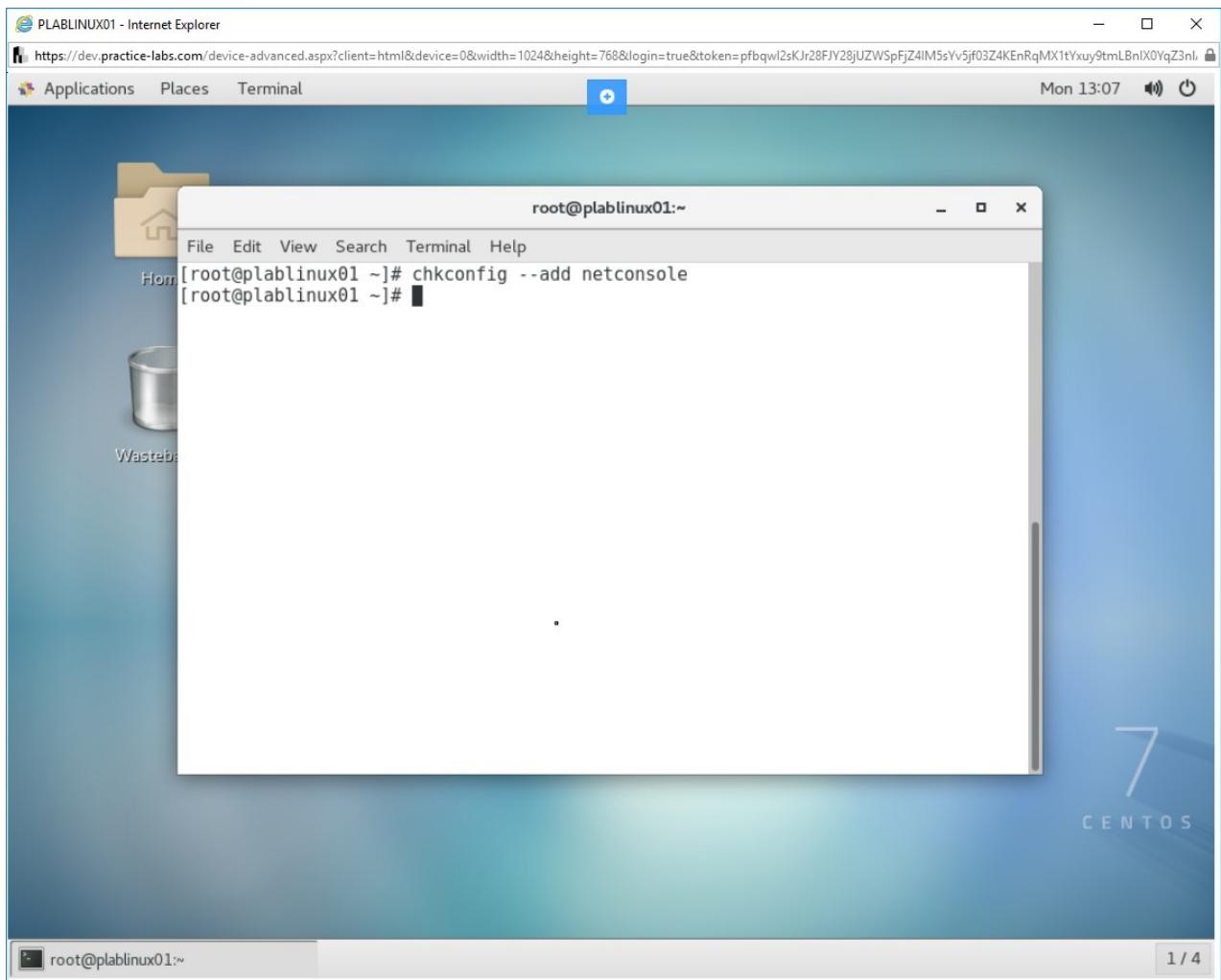


Figure 1.5 Screenshot of PLABLINUX01: Adding the netconsole service.

## Step 6

To verify whether netconsole is not added, type the following command:

```
chkconfig --list
```

Press **Enter**.

**Note:** The netconsole service is now added.

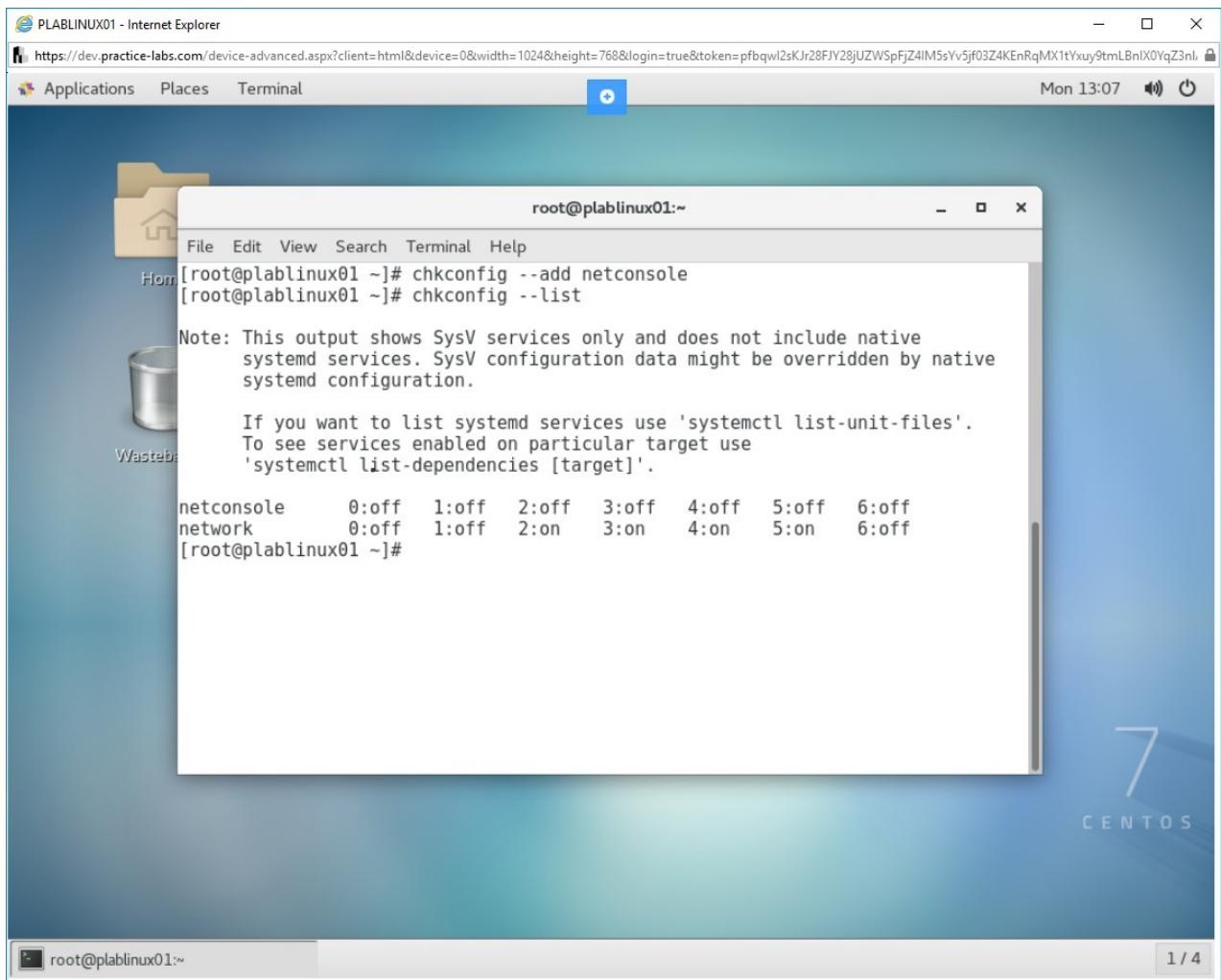


Figure 1.6 Screenshot of PLABLINUX01: Confirming that the netconsole service has been added.

## Step 7

You can add any service to any of the runlevels.

Type the following command to configure **netconsole** at **runlevel 4**.

```
chkconfig --level 4 netconsole on
```

Press **Enter**.

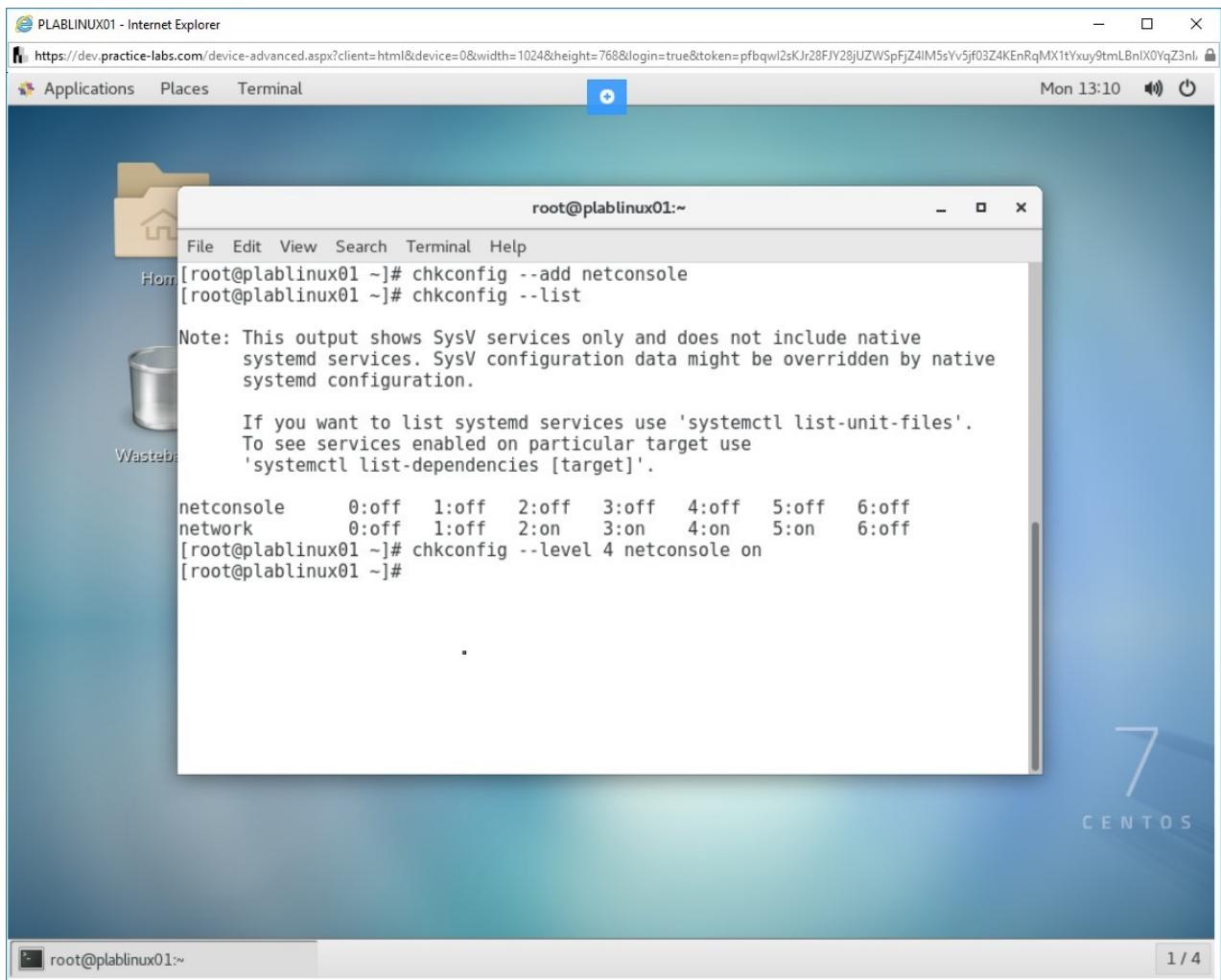


Figure 1.7 Screenshot of PLABLINUX01: Changing the runlevel of the netconsole service to 4.

## Step 8

To verify that the level for **netconsole** is changed, type the following command:

```
chkconfig --list
```

Press **Enter**.

Compare the entry for the **netconsole** against **level 4** with the earlier listing. Notice that the status is now changed to **on**, which was **off**.

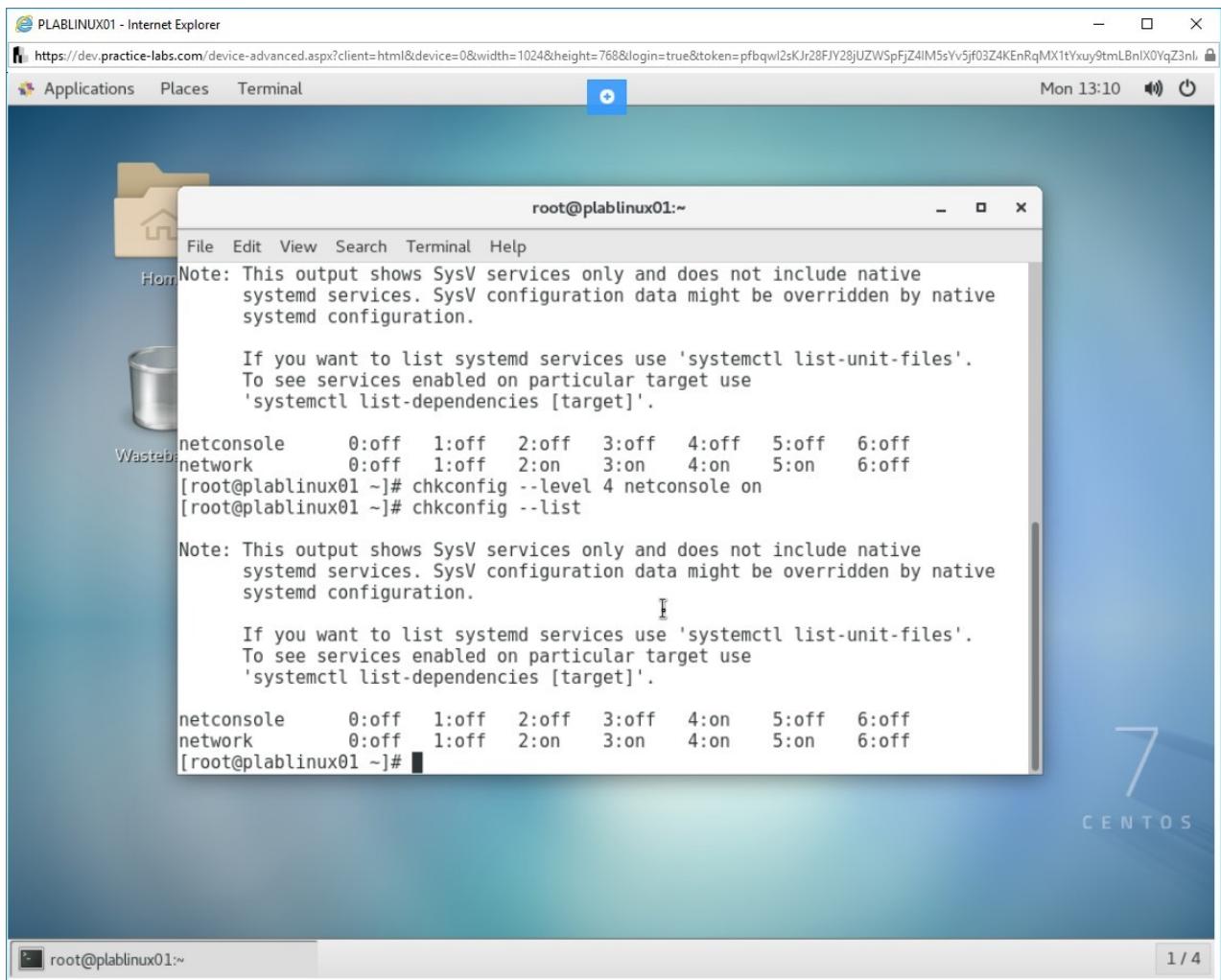


Figure 1.8 Screenshot of PLABLINUX01: Confirming that the netconsole service run level has changed to 4.

## Task 2 - Switch Among Runlevels

To change the services initialized on a system, you change the runlevel of the system. Before changing the runlevel, you need to verify the default runlevel of the system.

### Step 1

Clear the screen by entering the following command:

```
clear
```

To identify the default runlevel of the system, type the following command at the open command shell check:

**runlevel**

Press **Enter**.

**Note:** The system displays **runlevel 5**. This means the system is currently initialized to runlevel 5.

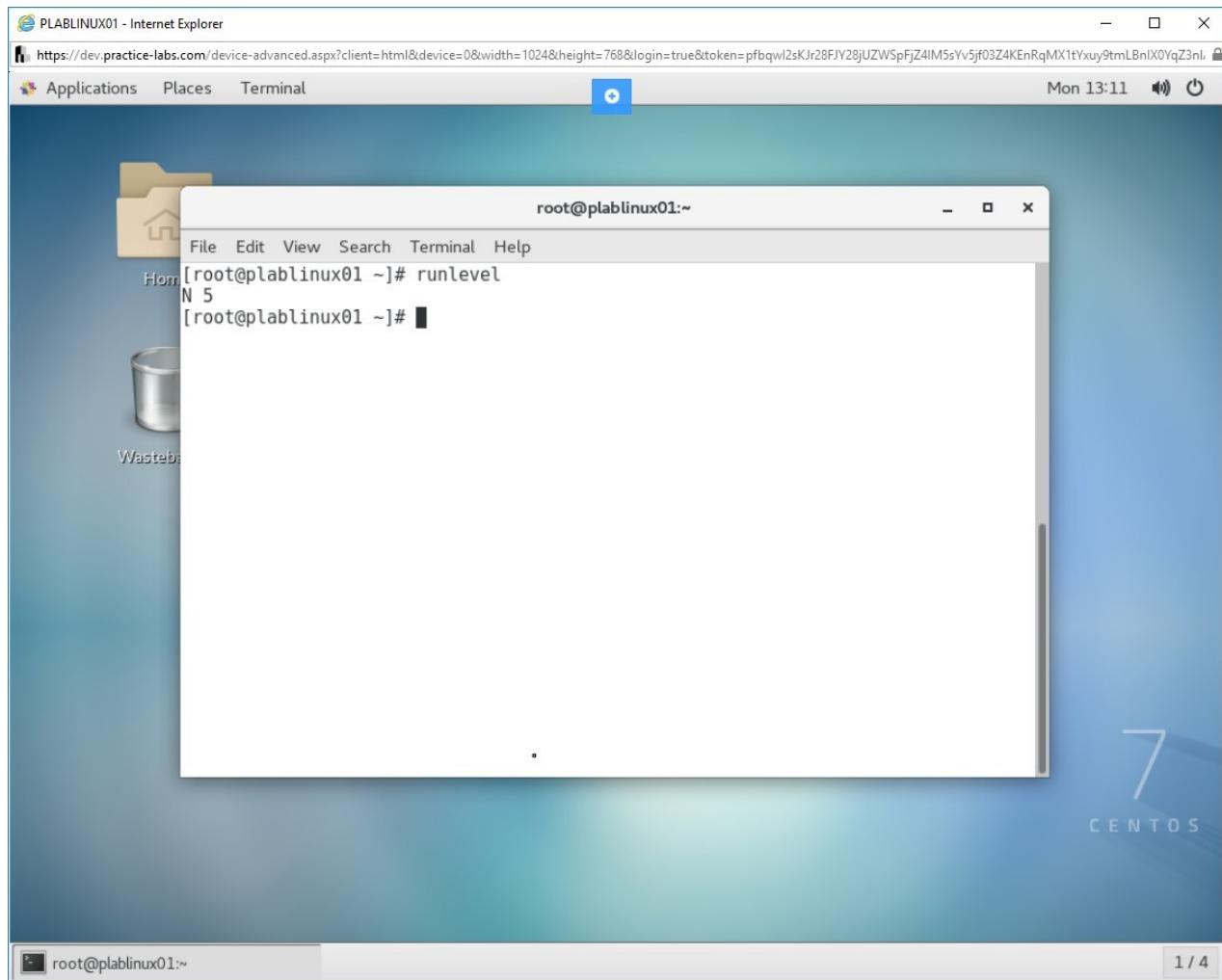


Figure 1.9 Screenshot of PLABLINUX01: Verifying the current runlevel.

## Step 2

You can switch among runlevels.

To switch from one runlevel to the other, type the following command:

**telinit 3**

Press **Enter**. Note that the system comes to the login prompt.

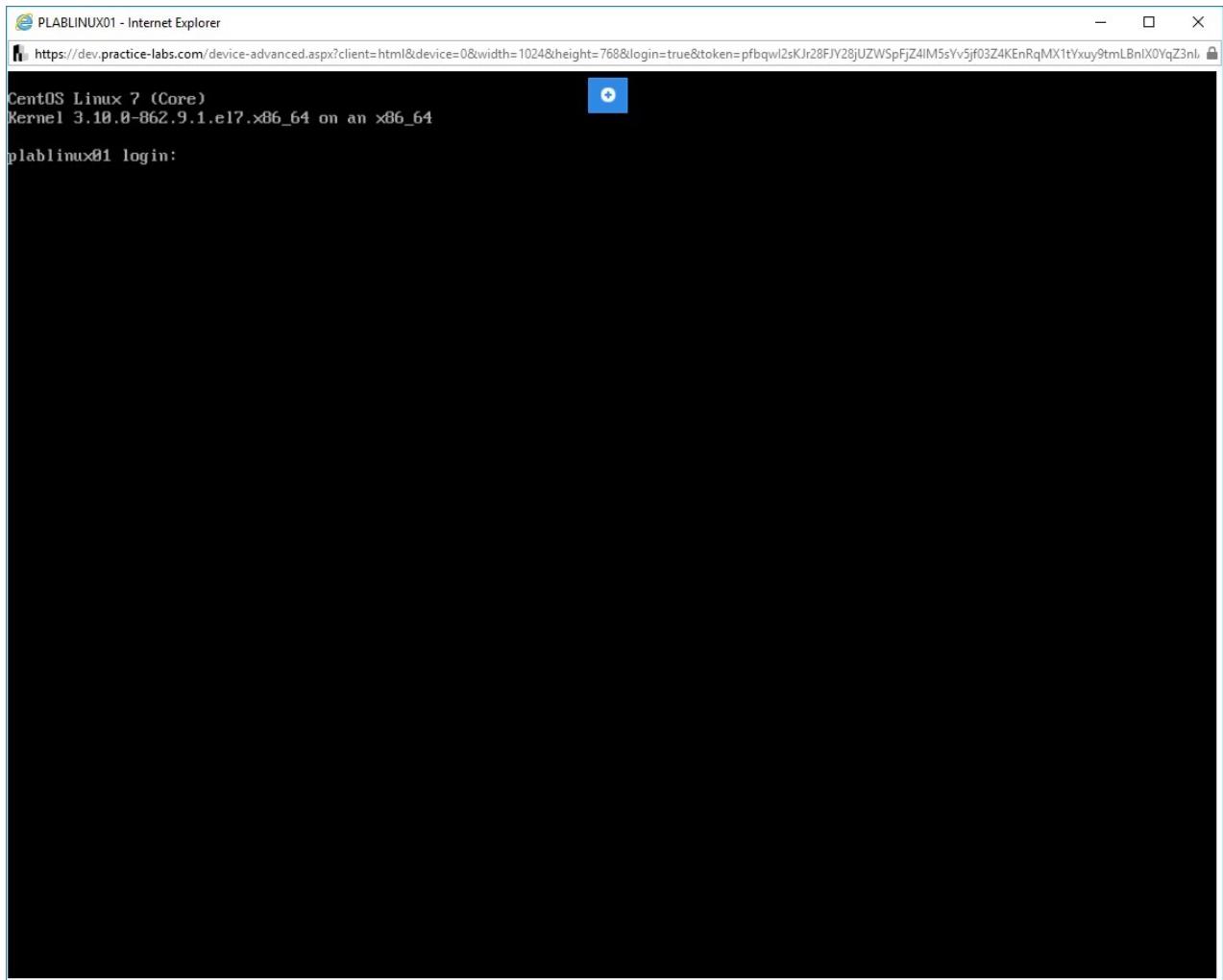


Figure 1.10 Screenshot of PLABLINUX01: Switching from runlevel 5 to runlevel 3.

## Step 3

At the login prompt, type the following username:

root

Press **Enter**.

At the Password prompt, type the following password:

Passw0rd

Press **Enter**.

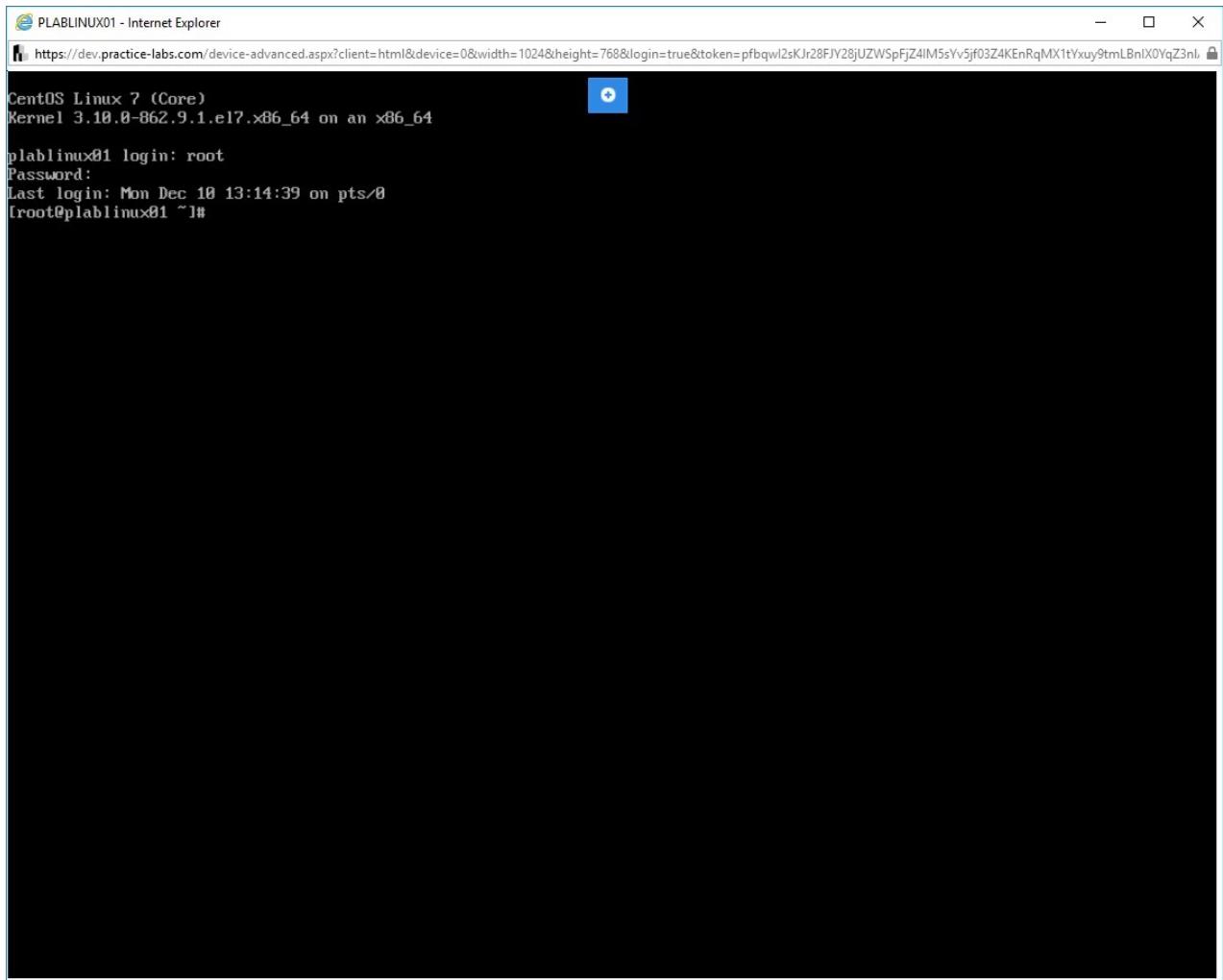


Figure 1.11 Screenshot of PLABLINUX01: Entering the user credentials at the login and password prompts.

## Step 4

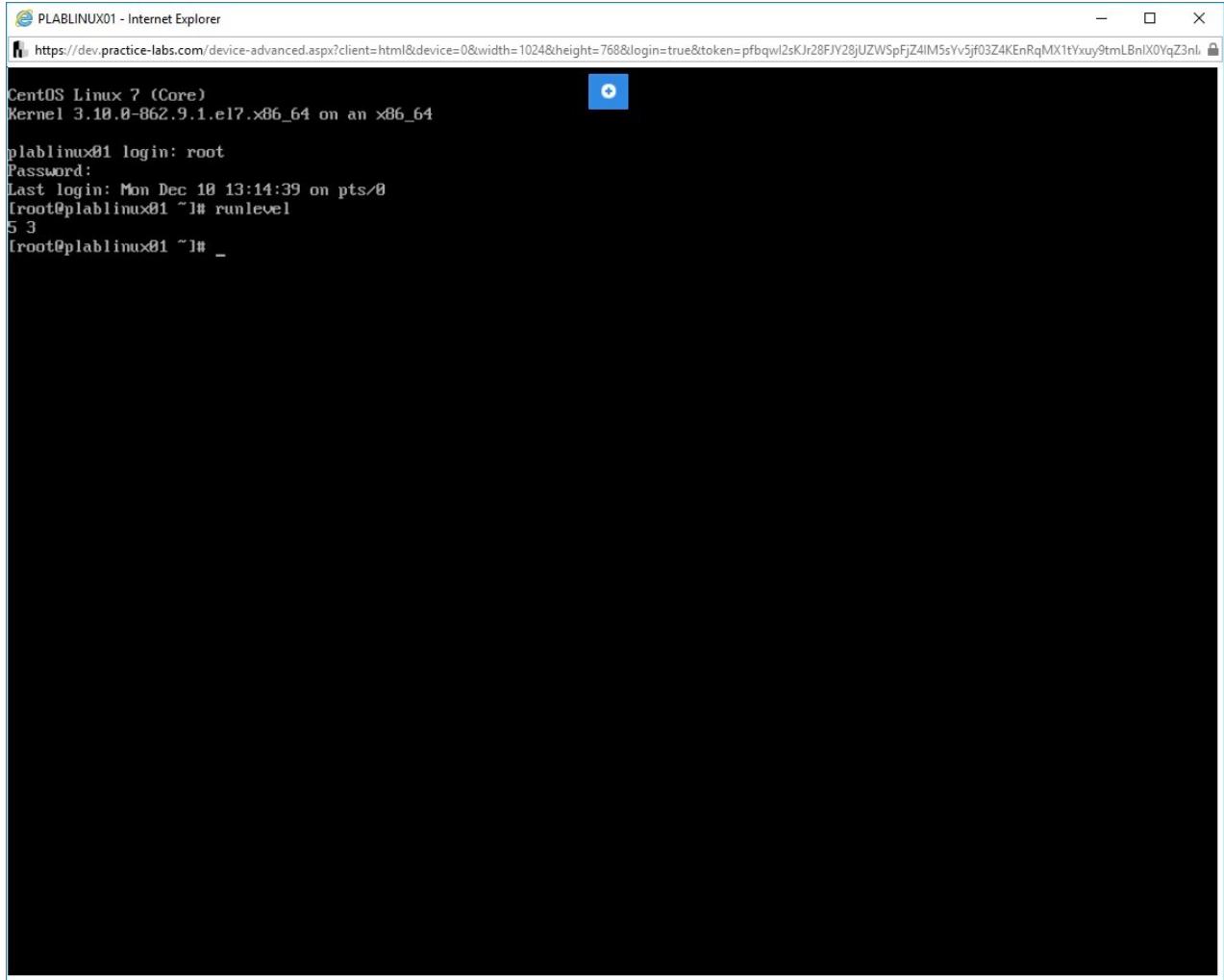
To verify that the runlevel is changed, type the following command:

```
runlevel
```

Press **Enter**.

**Note:** There are two runlevels mentioned. The first one is the previous runlevel and the second one is the new runlevel.

Notice that this is different from the output from the same command issued in the earlier step. This is because after a runlevel switch, the output of the command traces the complete transformation from one level to the next; while the earlier command displayed the default runlevel.



The screenshot shows a terminal window titled "PLABLINUX01 - Internet Explorer". The URL in the address bar is "https://dev.practice-labs.com/device-advanced.aspx?client=html&device=0&width=1024&height=768&login=true&ttoken=pfqwl2sKJr28FY28jUZWSpFjZ4IM5sYv5jf03Z4KEnRqMX1tYxuy9tmLBnIX0YqZ3nl". The terminal window displays the following text:

```
CentOS Linux 7 (Core)
Kernel 3.10.0-862.9.1.el7.x86_64 on an x86_64

plablinux01 login: root
Password:
Last login: Mon Dec 18 13:14:39 on pts/0
[root@plablinux01 ~]# runlevel
5 3
[root@plablinux01 ~]# _
```

Figure 1.12 Screenshot of PLABLINUX01: Displaying the current runlevel.

## Step 5

You can also change the runlevel by using the init command. This command shuts down the system and then reboots it with the mentioned level as the default runlevel.

Type the following command at the command prompt:

```
init 6
```

Press **Enter**.

```
PLABLINUX01 - Internet Explorer  
https://dev.practice-labs.com/device-advanced.aspx?client=html&device=0&width=1024&height=768&login=true&ttoken=pfqbql2sKJr28FJY28jUZWSpFJZ4IM5sYv5jf03Z4KEnRqMXItYxuy9tmLBnIX0YqZ3nl.  
CentOS Linux 7 (Core)  
Kernel 3.10.0-862.9.1.el7.x86_64 on an x86_64  
plablinux01 login: root  
Password:  
Last login: Mon Dec 10 13:14:39 on pts/0  
[root@plablinux01 ~]# runlevel  
5 3  
[root@plablinux01 ~]# telinit 6
```

Figure 1.13 Screenshot of PLABLINUX01: Changing the runlevel using the init command.

## Step 6

System restarts and then comes to the boot menu. If you do not select an option, it automatically boots into the graphical mode.

System reboots and comes back to the login screen.

Click **Administrator**.

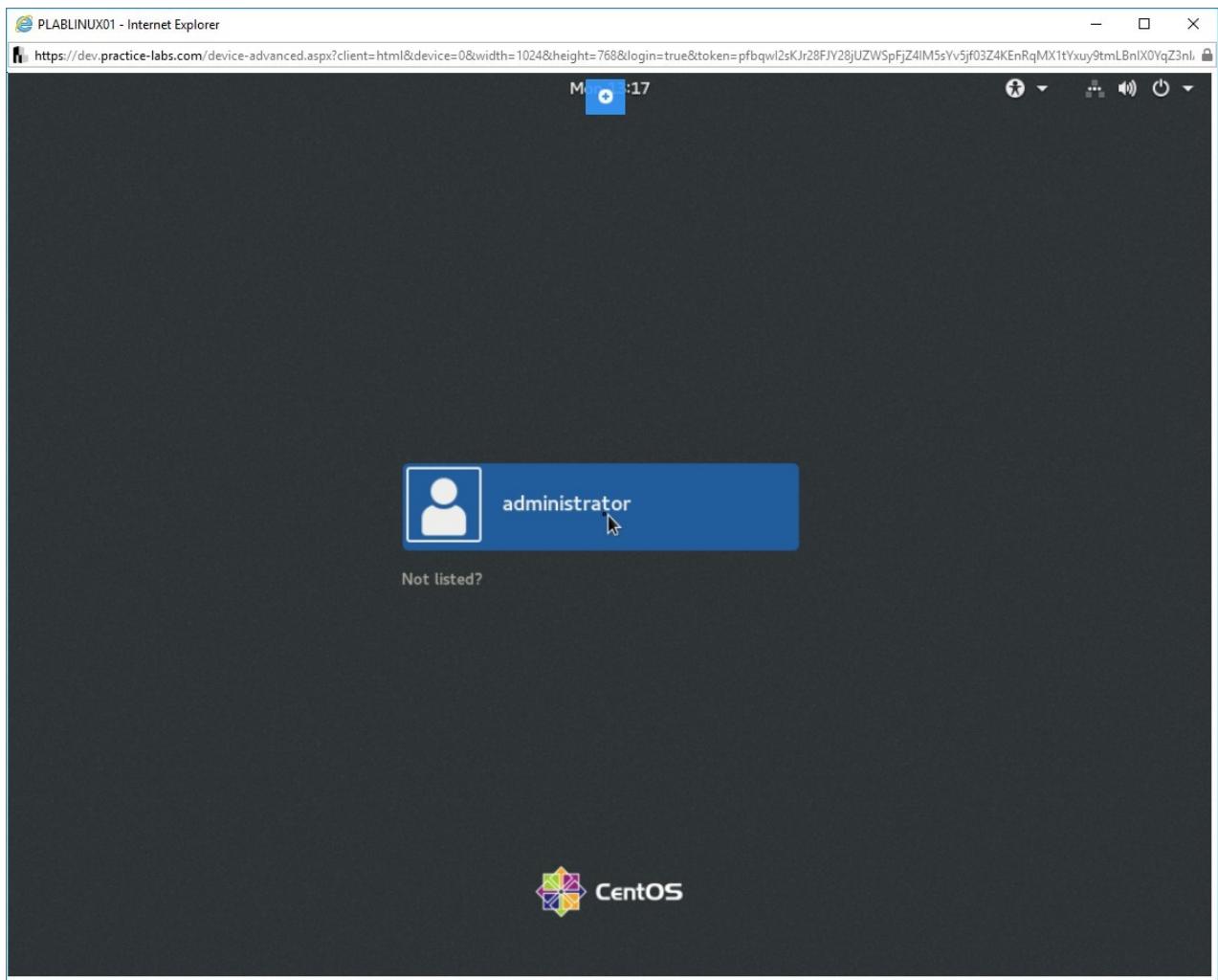


Figure 1.14 Screenshot of PLABLINUX01: Clicking the Administrator account on the login screen.

## Step 7

At the password prompt, type the password as **Passw0rd** and press **Enter**.

You are now on the desktop.

## Step 8

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

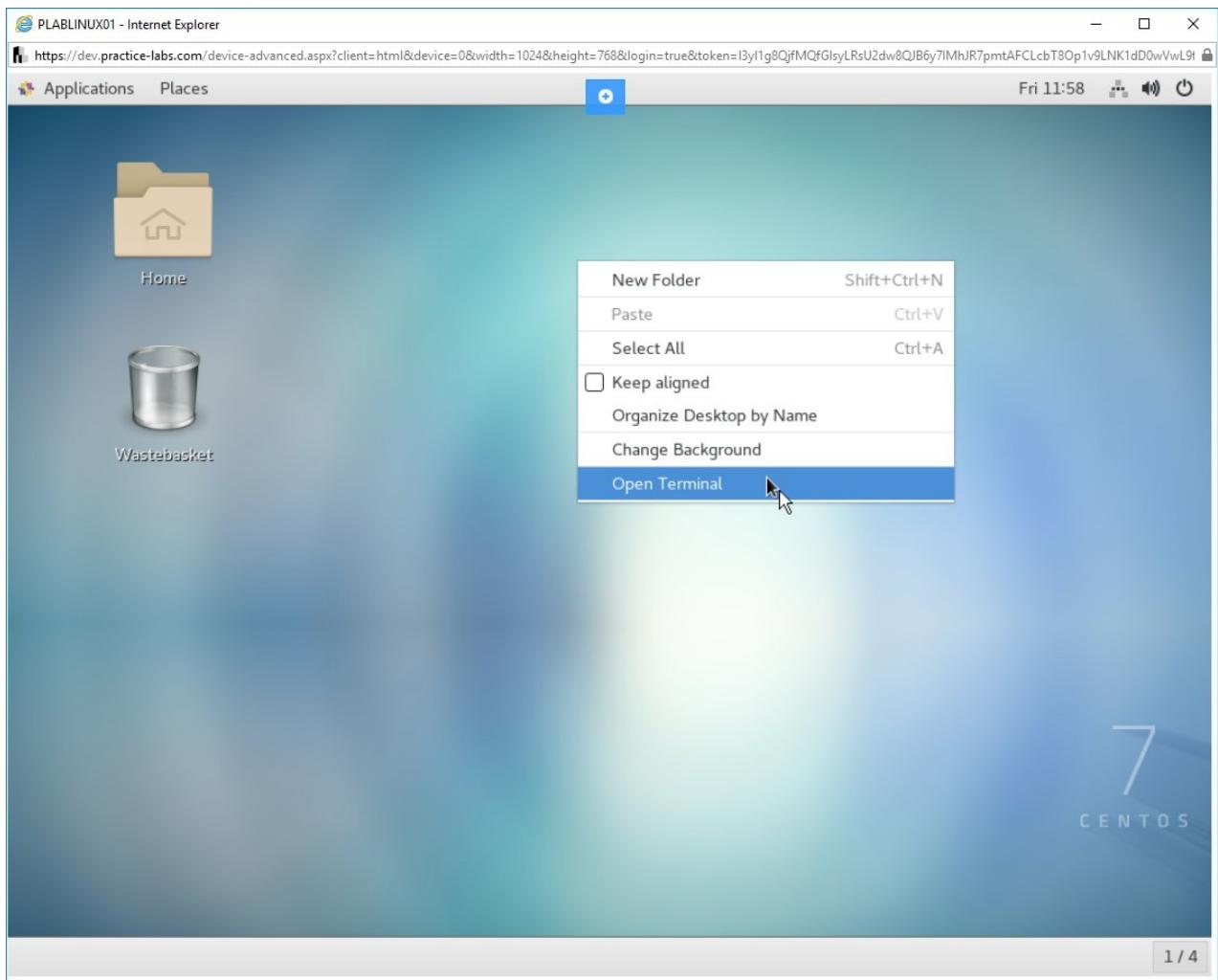


Figure 1.15 Screenshot of PLABLINUX01: Selecting the Open Terminal option from the context menu.

## Step 9

The command prompt window is displayed. Type the following command:

```
su -
```

Press **Enter**.

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

Passw0rd

Press **Enter**.

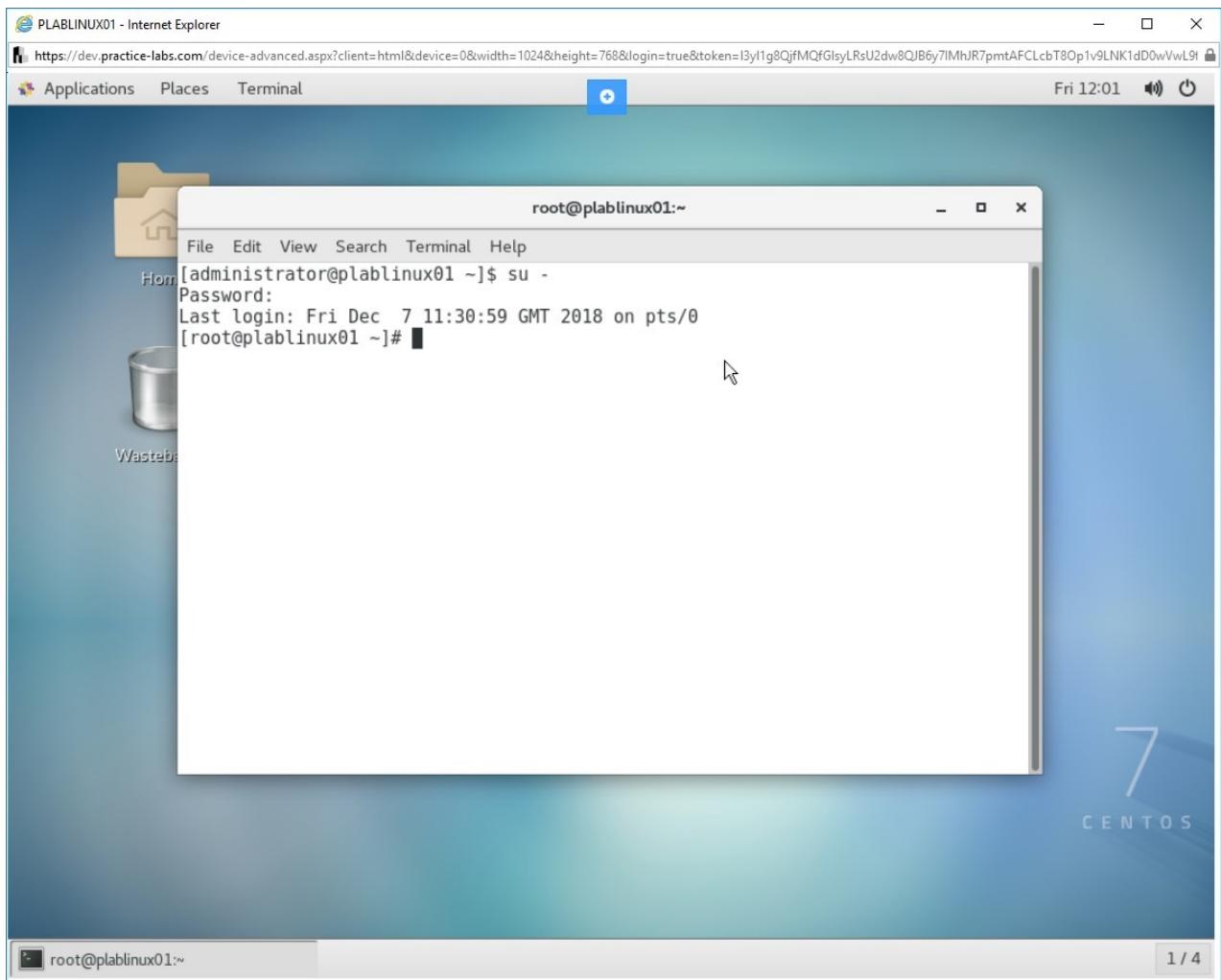


Figure 1.16 Screenshot of PLABLINUX01: Changing to the root account with the su command.

## Task 3 - Shutdown and Reboot the System from the Command Line

You can shut down and reboot a system from the command line. To shut down and reboot the system from the command line, perform the following steps:

### Step 1

Clear the screen by entering the following command:

```
clear
```

To verify the default runlevel of the system, type the following command at the command shell prompt:

```
runlevel
```

Press **Enter**.

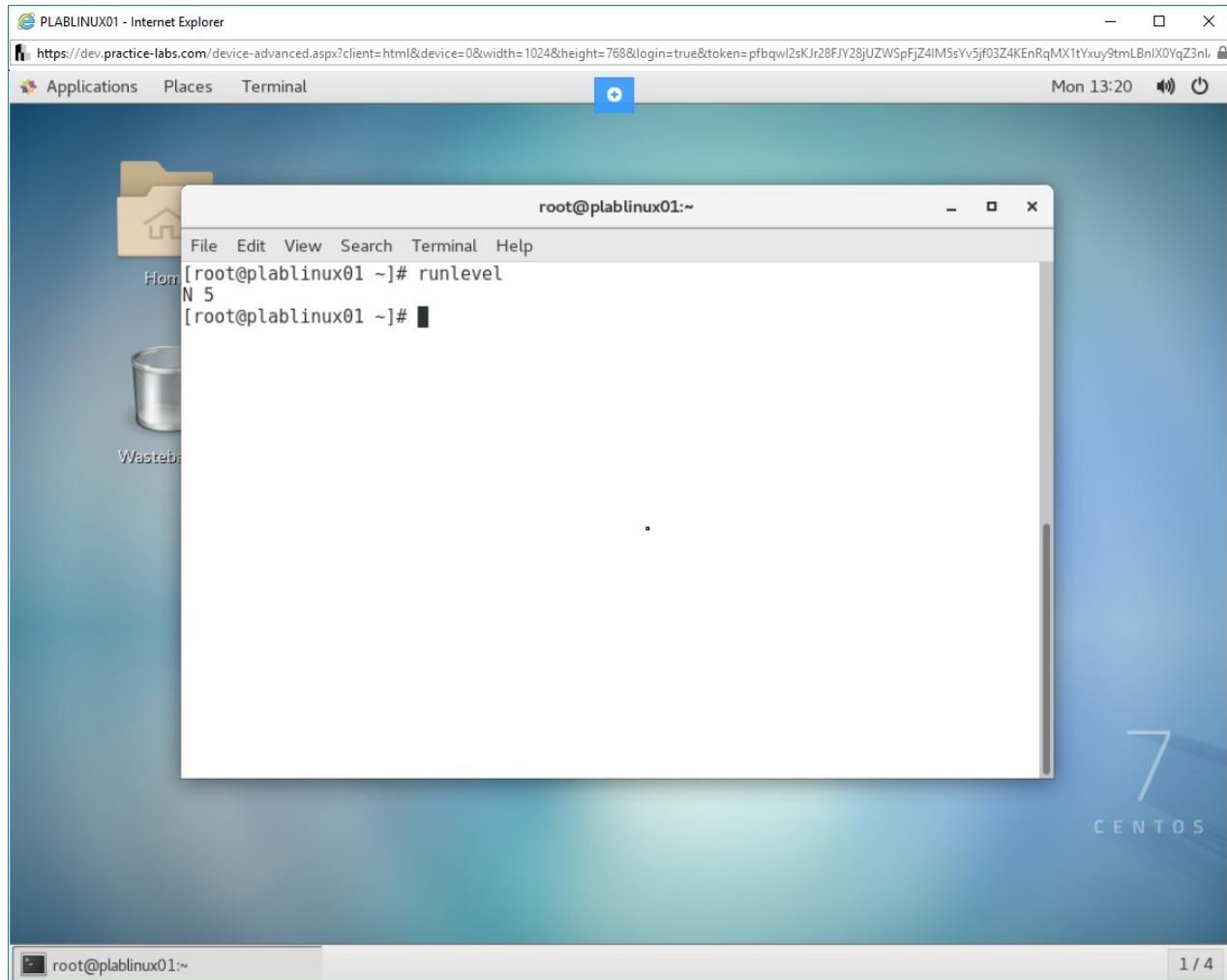


Figure 1.17 Screenshot of PLABLINUX01: Verifying the current runlevel.

## Step 2

To configure the system shutdown in next 10 minutes, type the following command:

```
shutdown -h +10
```

Press **Enter**.

You are prompted with a message confirming the schedule for the shutdown.

Press Enter.

**Note:** Alternatively, you can press **Ctrl + c** to break the command.

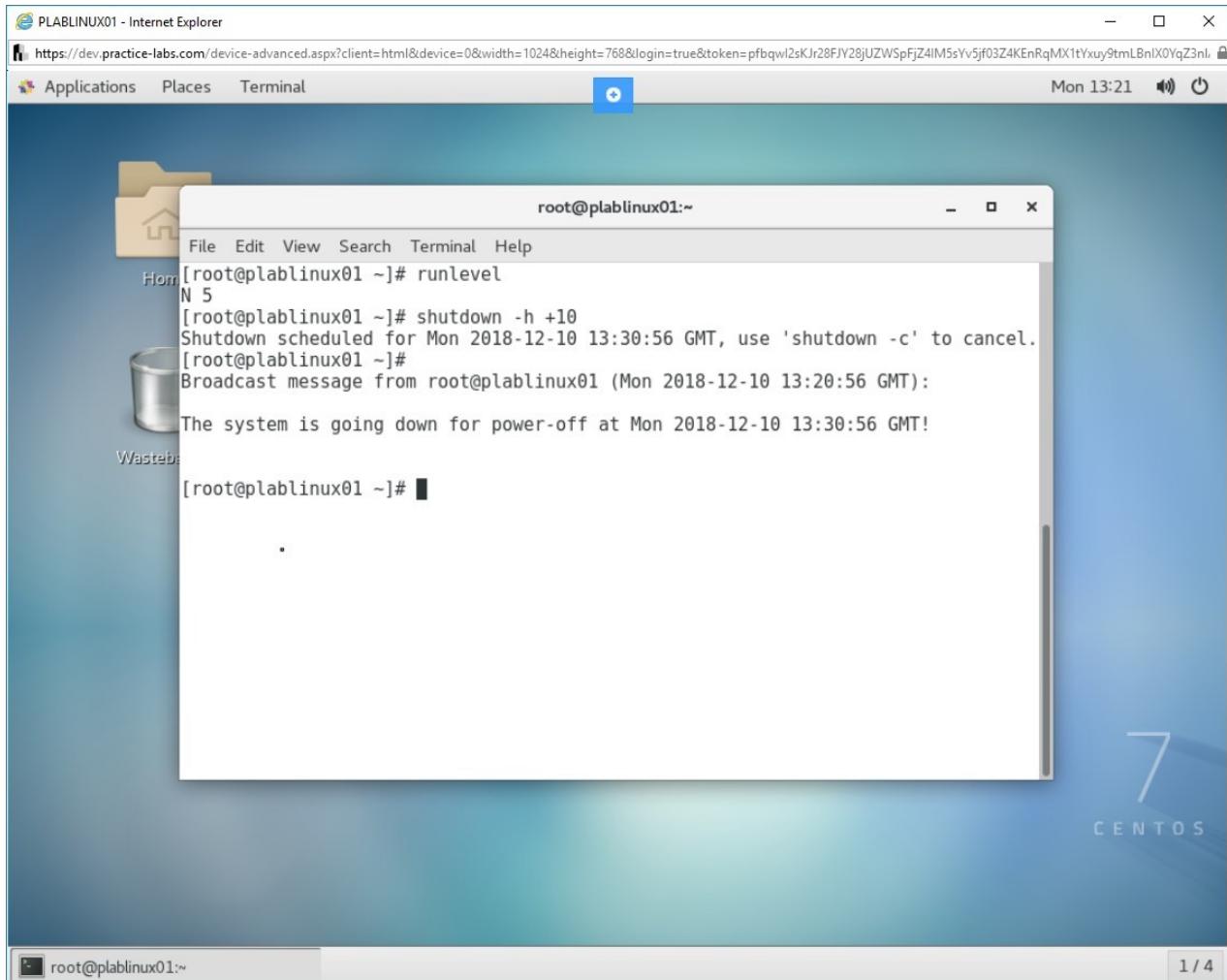


Figure 1.18 Screenshot of PLABLINUX01: Configuring the shutdown of the system in next 10 minutes.

## Step 3

To cancel the scheduled shutdown, type the following command:

```
shutdown -c
```

Press **Enter**.

Notice that the output message confirms that the scheduled shutdown is canceled.

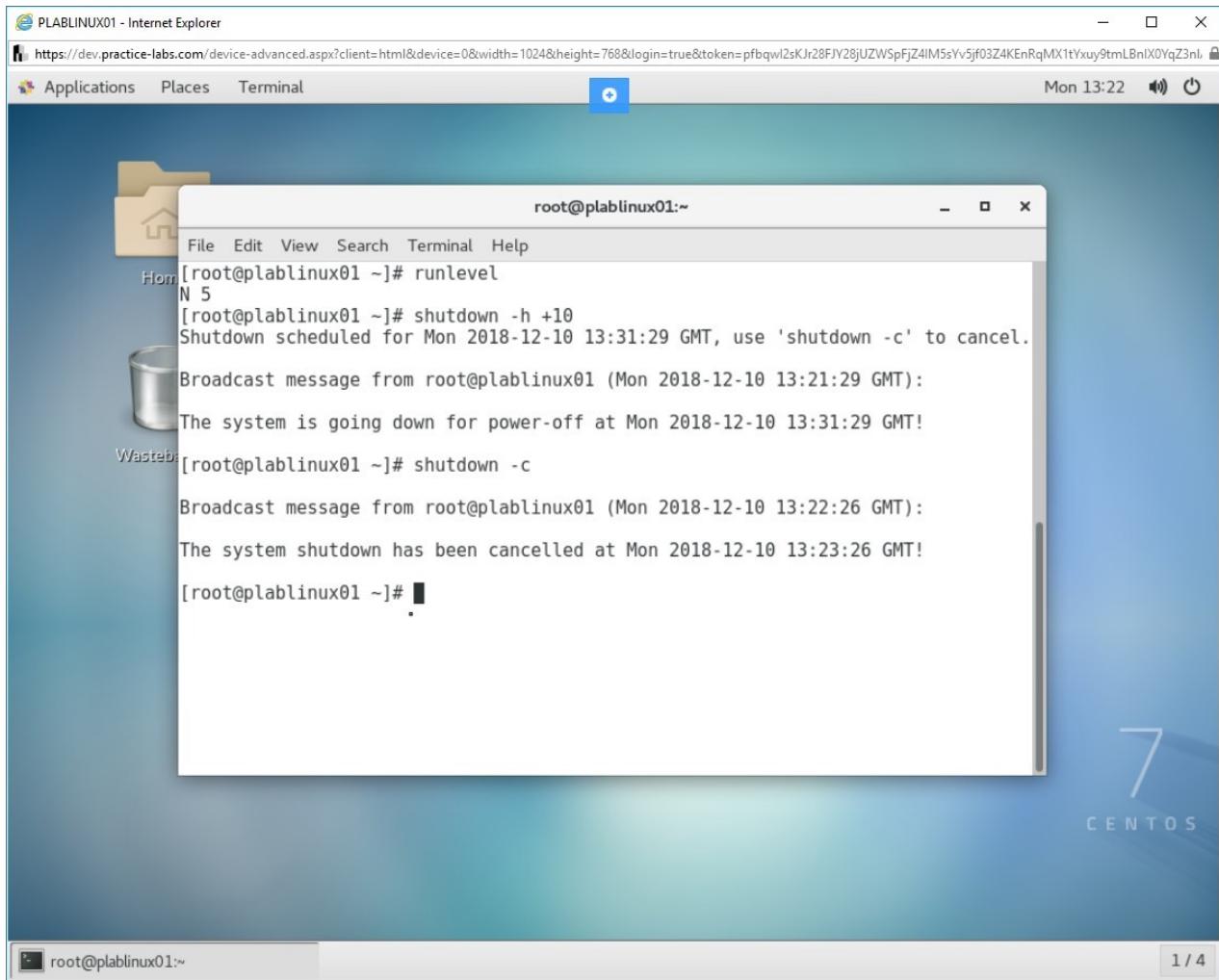


Figure 1.19 Screenshot of PLABLINUX01: Canceling the scheduled shutdown.

## Step 4

You can also configure the system to shut down automatically at a specific time. For example, to configure the system to shut down automatically at **11:00 AM**, type the following command:

```
shutdown -r 11:00
```

Press **Enter**.

A confirmation message appears.

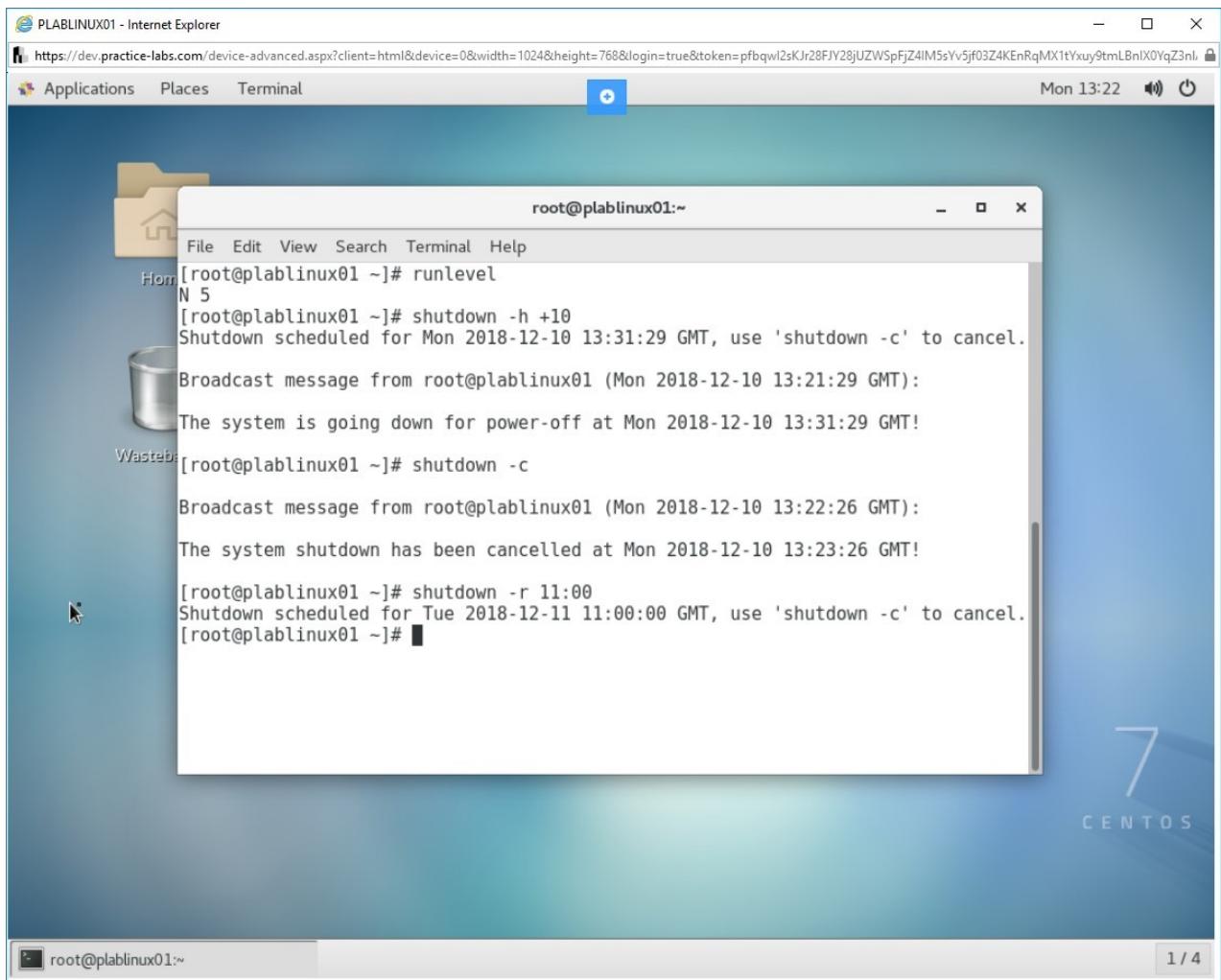


Figure 1.20 Screenshot of PLABLINUX01: Scheduling the shutdown at 11 AM.

## Step 5

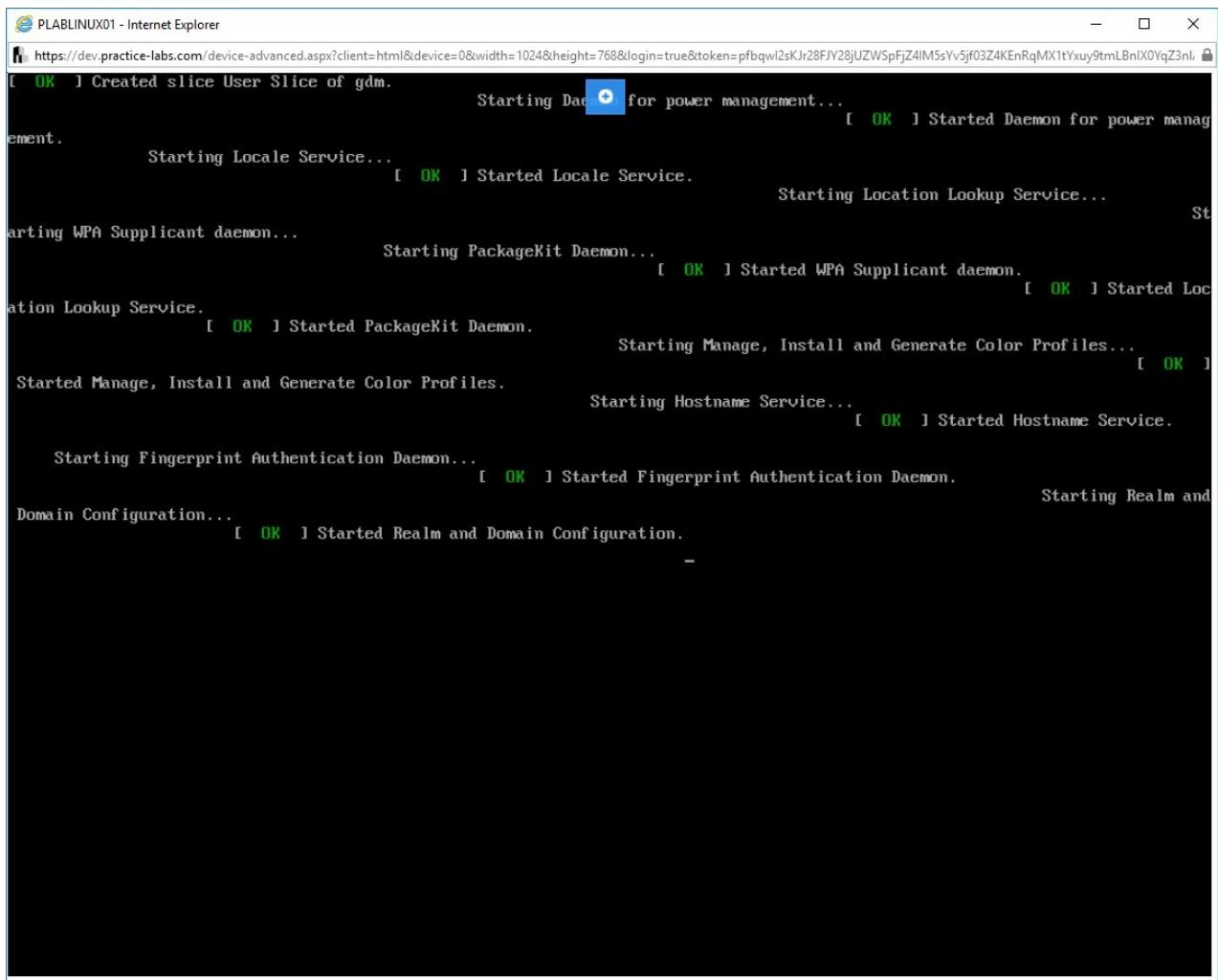
You can also reboot a system from the command prompt. This helps avoid a hard reboot.

To reboot a system, type the following command:

```
reboot
```

Press **Enter**.

Note that a system reboot is initiated.



The screenshot shows a terminal window titled "PLABLINUX01 - Internet Explorer" with the URL "https://dev.practice-labs.com/device-advanced.aspx?client=html&device=0&width=1024&height=768&login=true&token=pfbbqwl2sKJr28FY28jUZWSpFJZ4IM5sYv5jf03Z4KEnRqMX1tYxuy9tmLBnIX0YqZ3nl". The terminal output details a system reboot sequence:

```
[ OK ] I Created slice User Slice of gdm.
Starting Daemon for power management...
[ OK ] I Started Daemon for power management.
Starting Locale Service...
[ OK ] I Started Locale Service.
Starting Location Lookup Service...
Starting WPA Supplicant daemon...
Starting PackageKit Daemon...
[ OK ] I Started WPA Supplicant daemon.
[ OK ] I Started Location Lookup Service.
Started Manage, Install and Generate Color Profiles.
Starting Hostname Service...
[ OK ] I Started Hostname Service.
Starting Fingerprint Authentication Daemon...
[ OK ] I Started Fingerprint Authentication Daemon.
Starting Realm and Domain Configuration...
[ OK ] I Started Realm and Domain Configuration.
```

Figure 1.21 Screenshot of PLABLINUX01: Showing the system reboot.

## Task 4 - Alert Users Before Switching Runlevels or Other Major System Events

Alerting users before switching runlevels or other major system events can help avoid any disturbing last-minute surprises or unscheduled data loss. To alert users, perform the following steps:

### Step 1

Ensure all the required devices are powered on. Connect to **PLABLINUX01**.

After a successful login, the desktop is displayed.

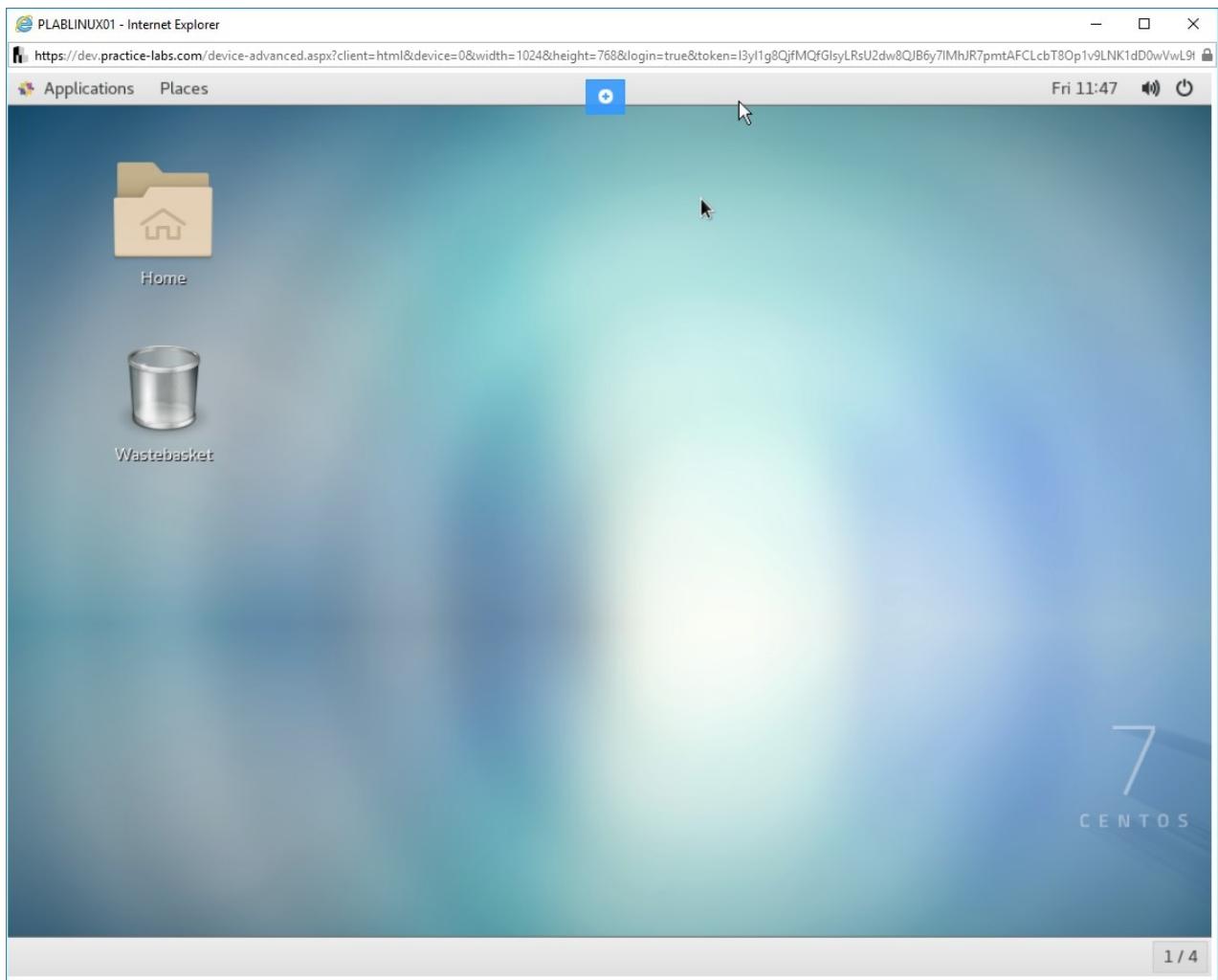


Figure 1.22 Screenshot of PLABLINUX01: Displaying the desktop after the successful login.

## Step 2

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

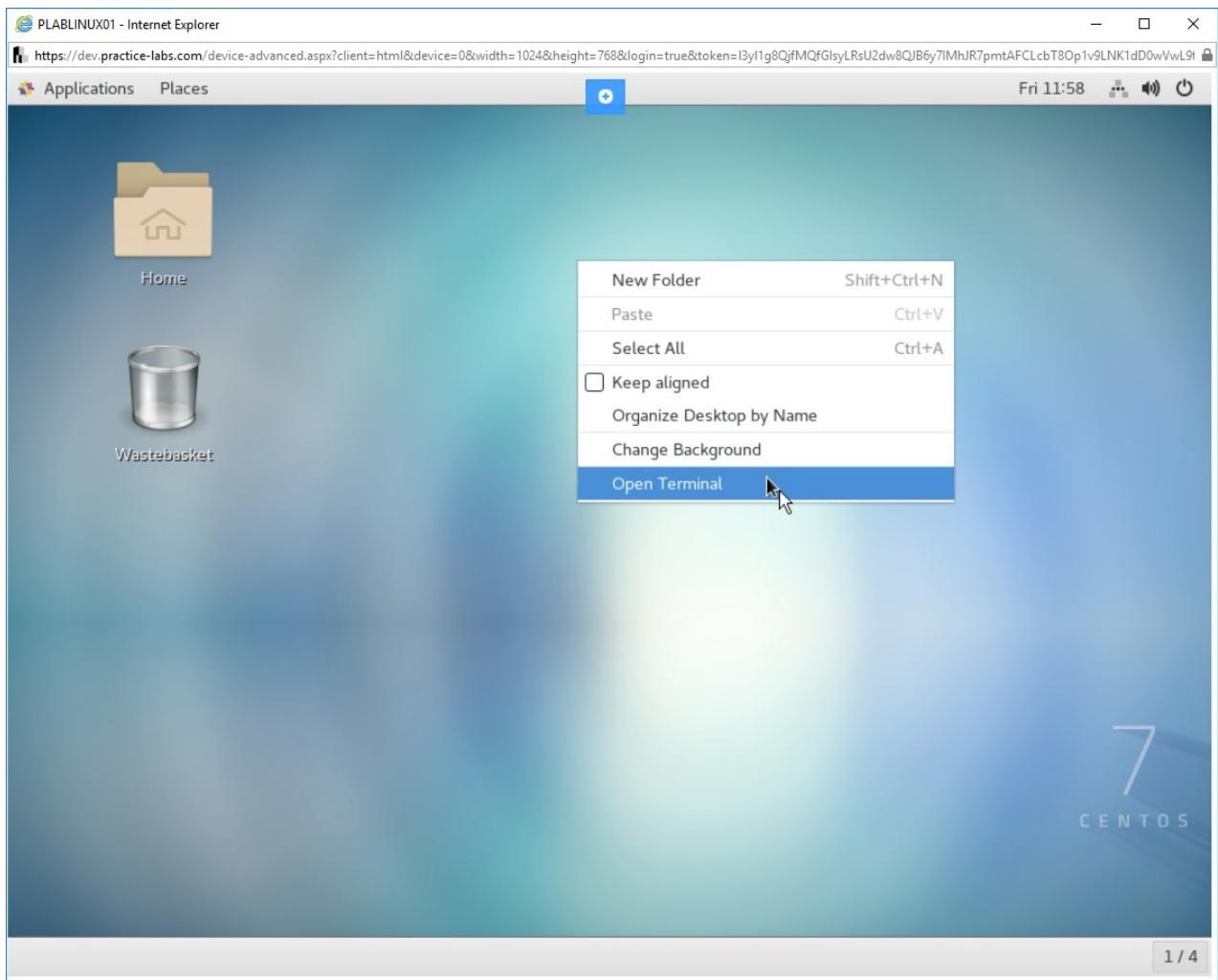


Figure 1.23 Screenshot of PLABLINUX01: Selecting the Open Terminal option from the context menu.

## Step 3

The command prompt window is displayed. Type the following command:

```
su -
```

Press **Enter**.

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

Passw0rd

Press **Enter**.

## Step 4

Type the following command to broadcast the message to users:

```
wall "This system will be rebooted at 11:00 AM."
```

Press **Enter**.

Notice that the message appears on the screen. A similar message appears on the screen of each user alerting them about the scheduled shutdown.

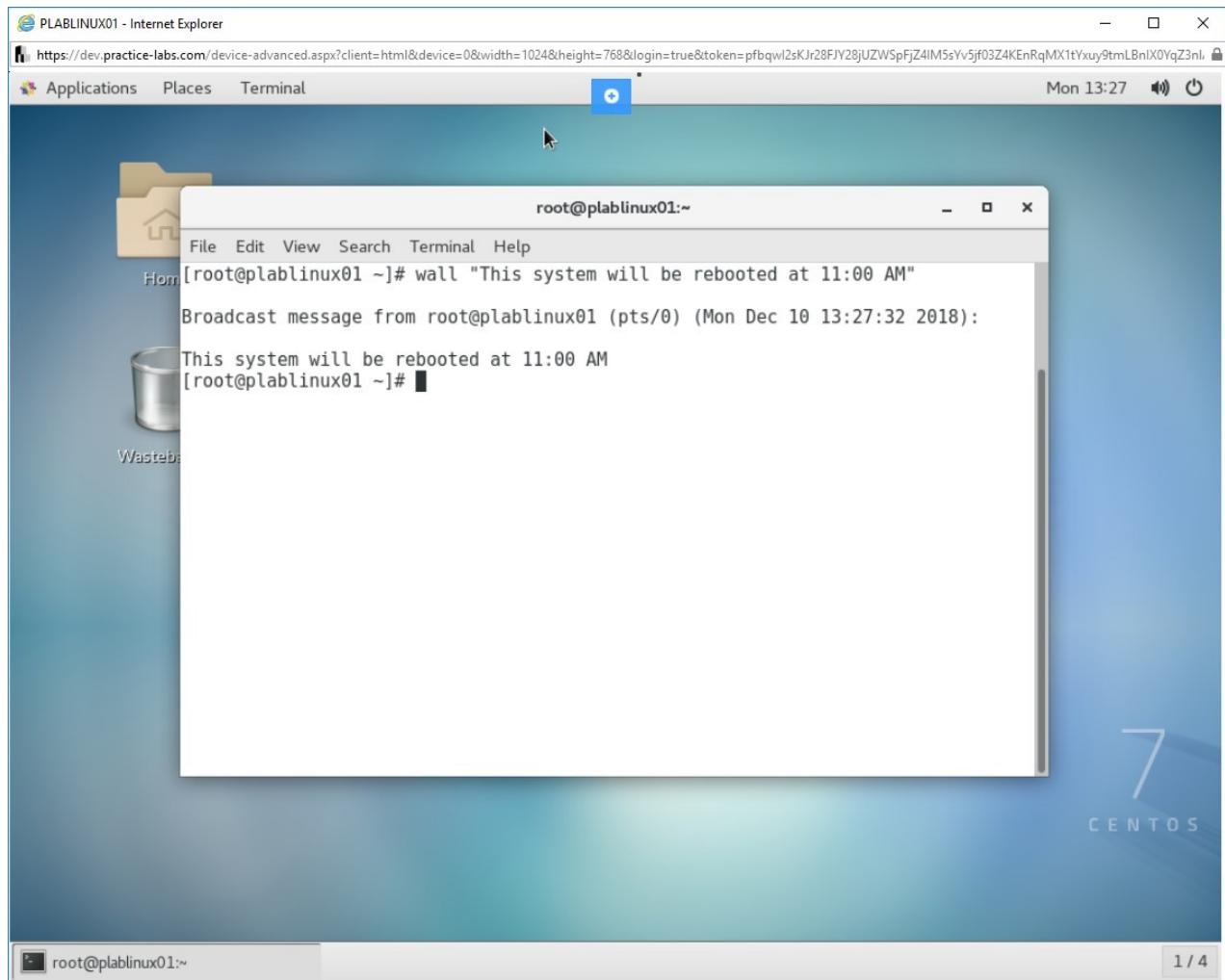


Figure 1.24 Screenshot of PLABLINUX01: Displaying the shutdown message on the screen.

## Task 5 - Manage Services

To manage services, perform the following steps:

## Step 1

Clear the screen by entering the following command:

```
clear
```

Type the following command to stop a service.

```
service vmtoolsd.service stop
```

Press **Enter**.

Notice a message appears confirming stopping of the specified service.

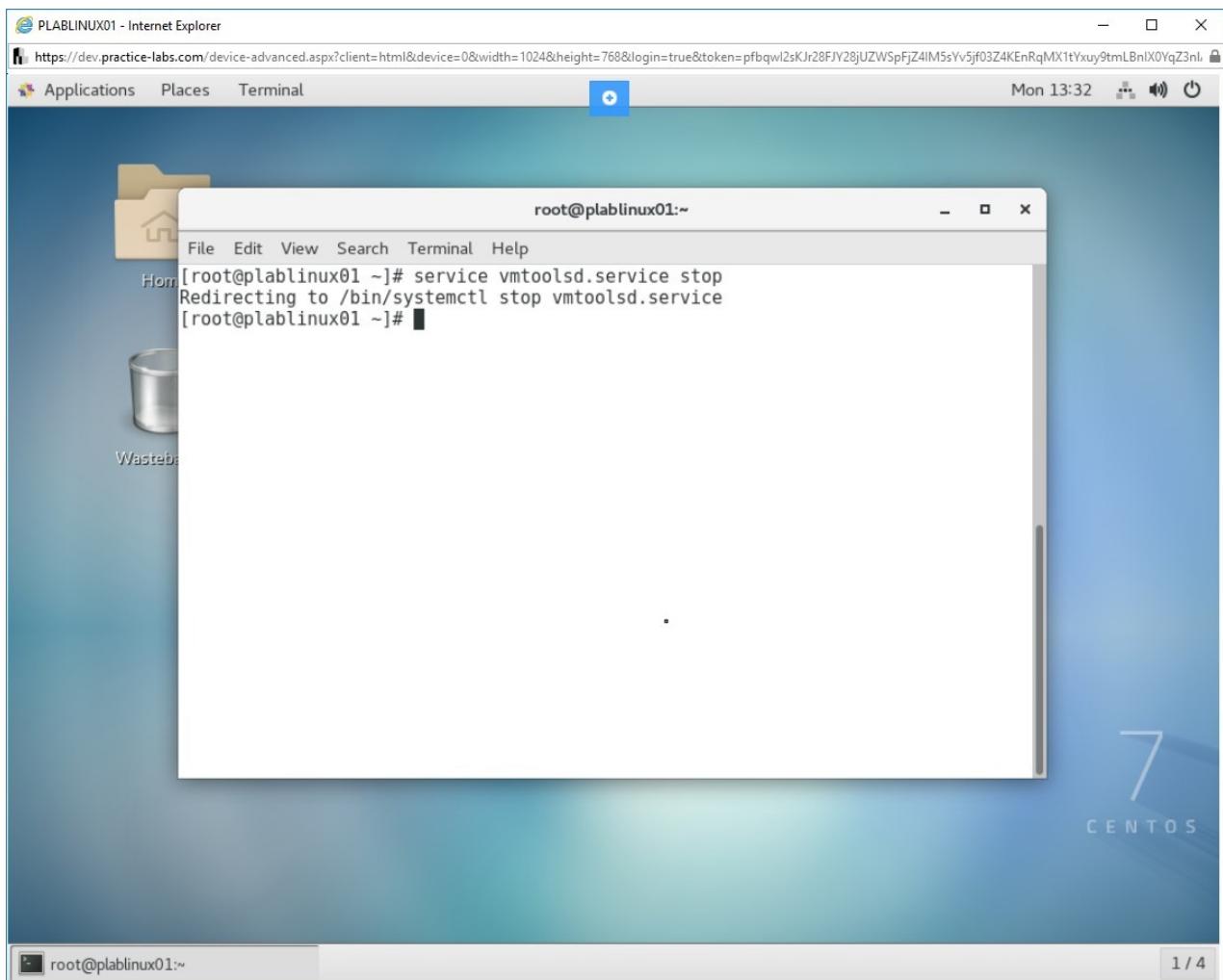


Figure 1.25 Screenshot of PLABLINUX01: Stopping a service.

## Step 2

After the service is stopped, you can restart it.

To start the stopped service, type the following command:

```
service vmtoolsd.service start
```

Press **Enter**.

Notice a message appears confirming starting of the specified service.

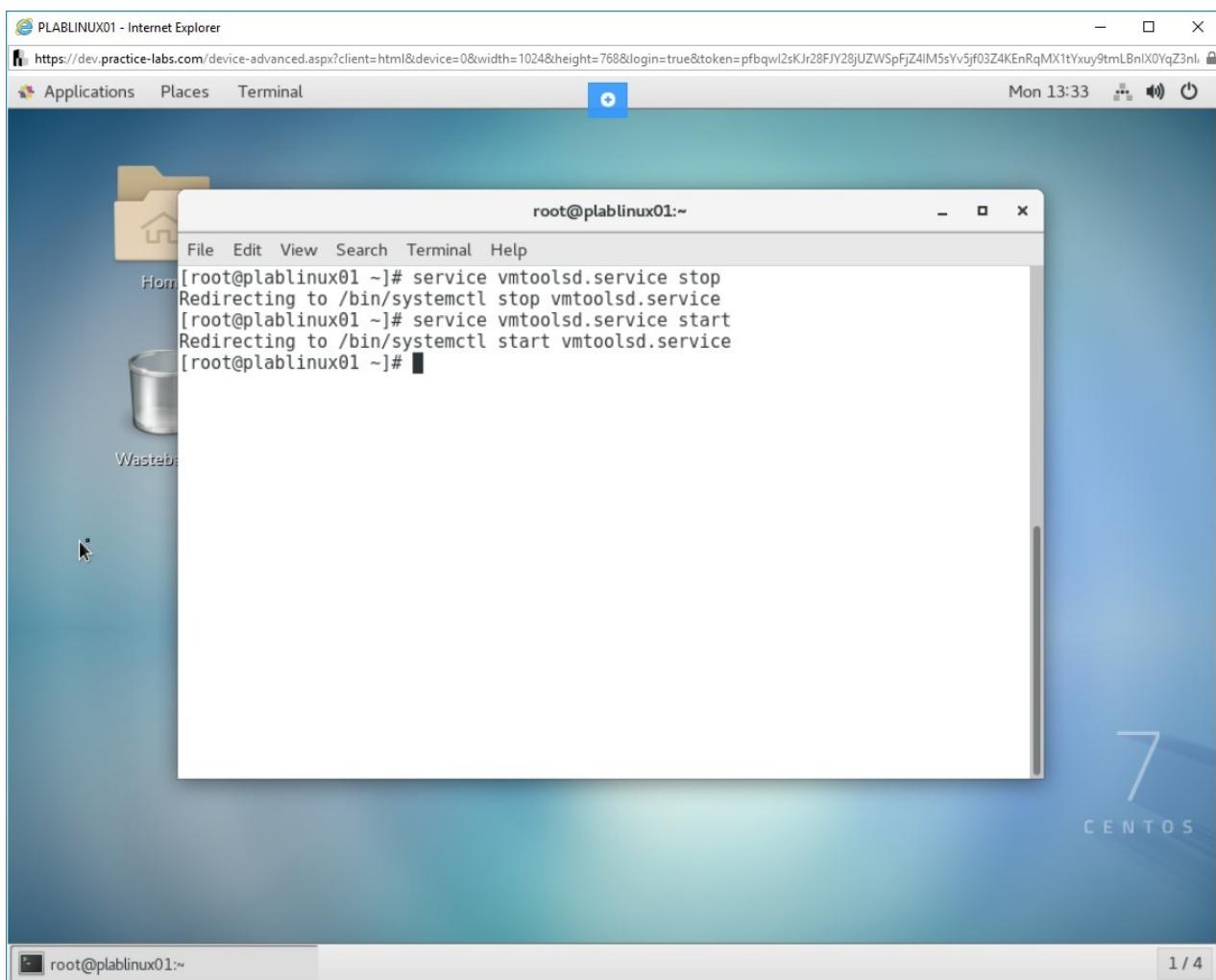


Figure 1.26 Screenshot of PLABLINUX01: Starting the stopped service.

## Task 6 - Understand Terms and Utilities

To understand the terms and utilities, perform the following steps:

## Step 1

Clear the screen by entering the following command:

```
clear
```

To review the default runlevels in the **inittab**, type the following command:

```
cat /etc/inittab
```

Press **Enter**.

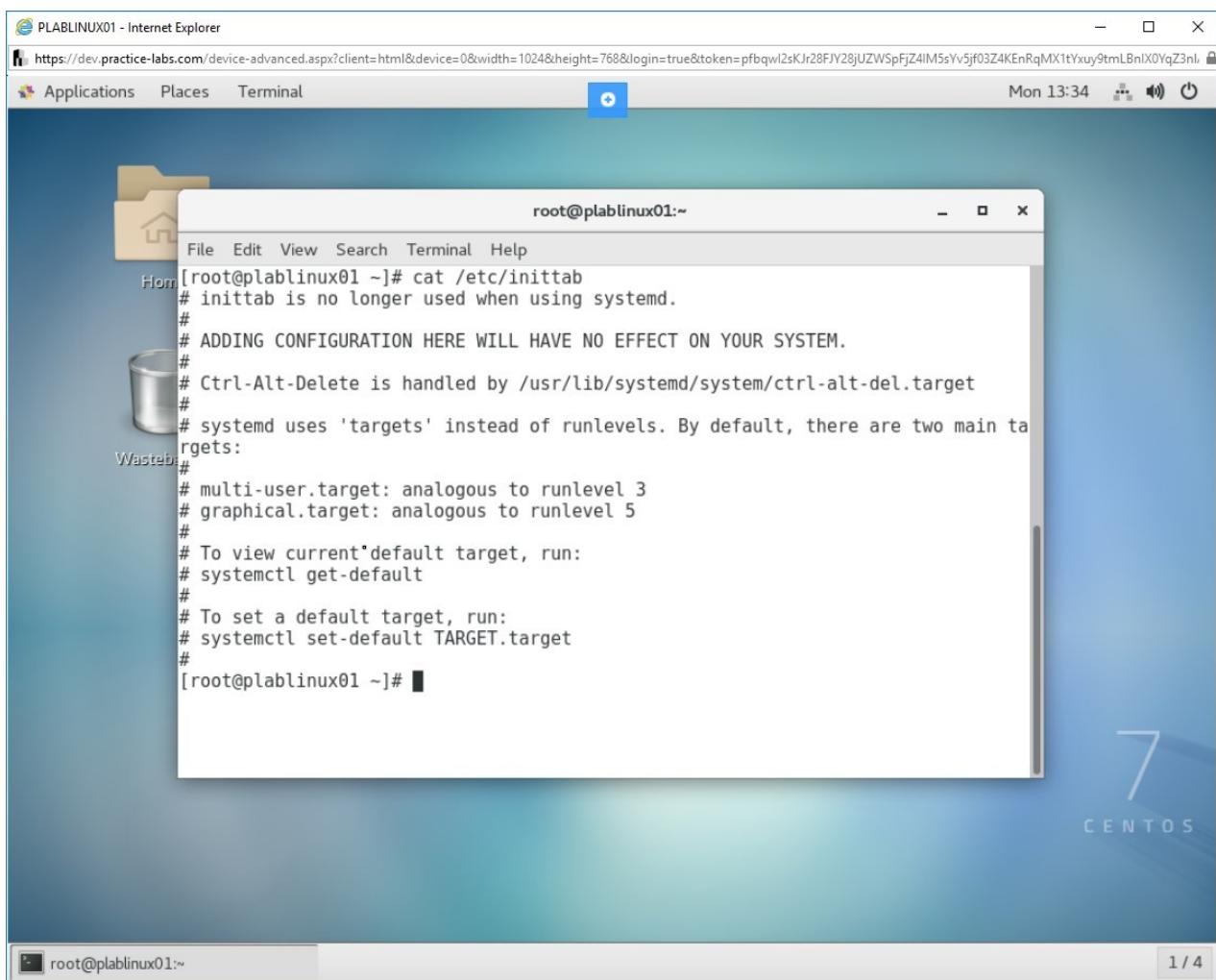


Figure 1.27 Screenshot of PLABLINUX01: Viewing the contents of the /etc/inittab.

## Step 2

Clear the screen by entering the following command:

```
clear
```

To view the details for/**etc/init.d**, type the following command:

```
cd /etc/init.d
```

Press **Enter**.

Notice that the directory mentioned on the command prompt is changed to **init.d**.

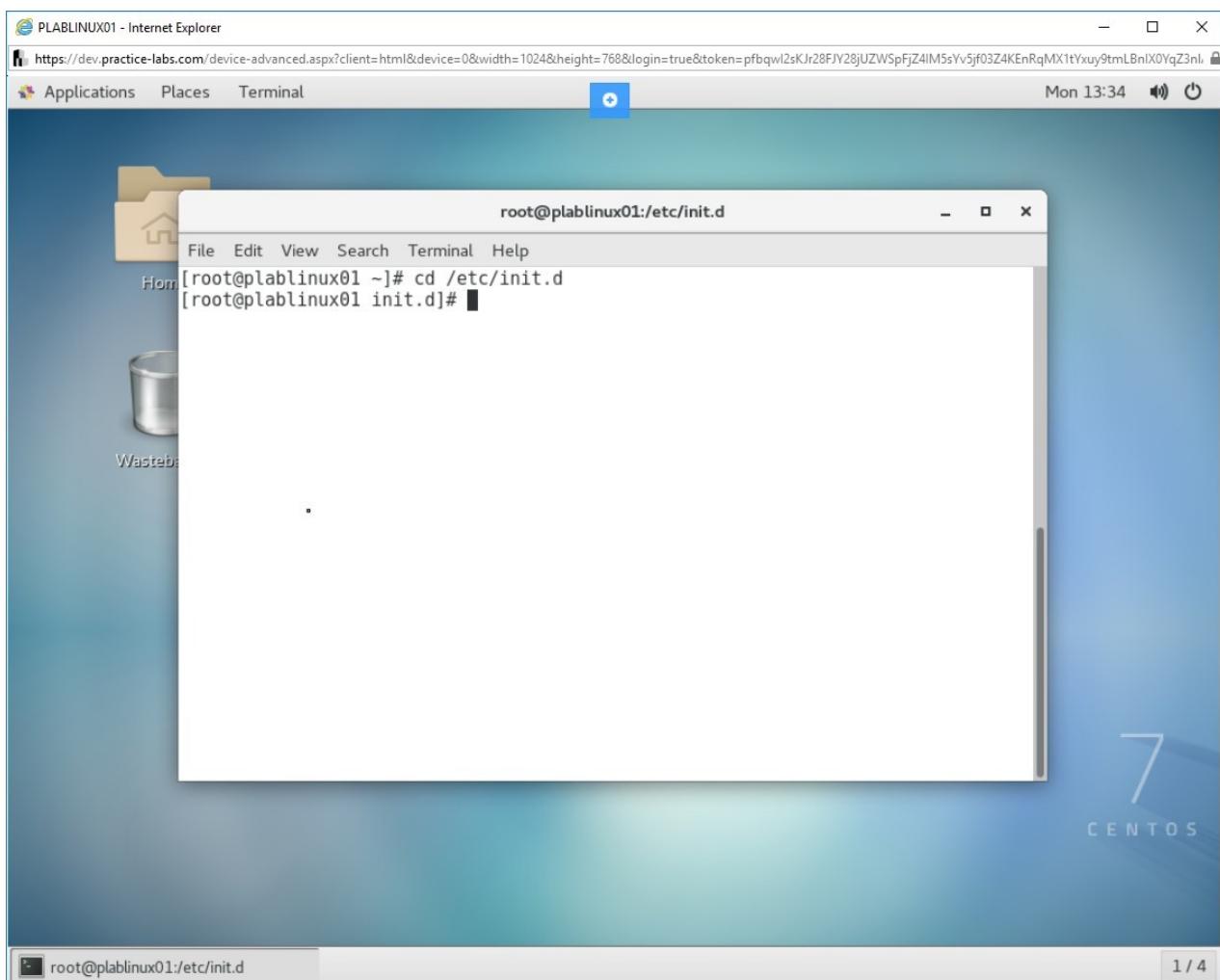


Figure 1.28 Screenshot of PLABLINUX01: Changing to the /etc/init.d directory.

## Step 3

To review the contents of the **/etc/init.d**, type the following command:

```
ls
```

Press **Enter**.

Notice that issuing a listing command from within the directory path lists the contents of the directory.

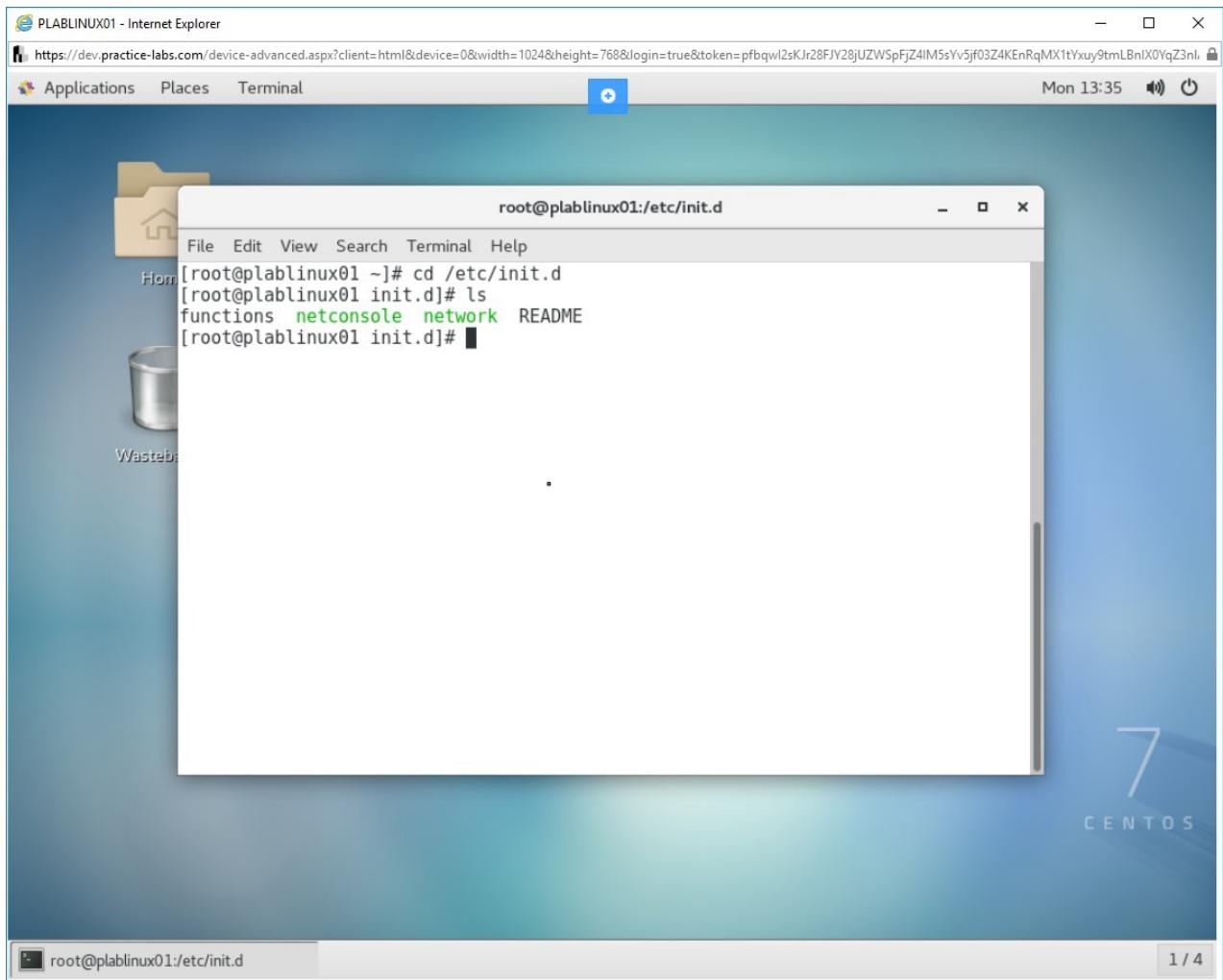


Figure 1.29 Screenshot of PLABLINUX01: Listing the contents of the directory.

## Step 4

Clear the screen by entering the following command:

**clear**

To use the telinit command, type the following command:

**telinit**

Press **Enter**.

You will receive telinit is missing an argument error message. You need to add an argument, such as 6. However, do not enter any argument at this moment. You have already seen an example of telinit 6.

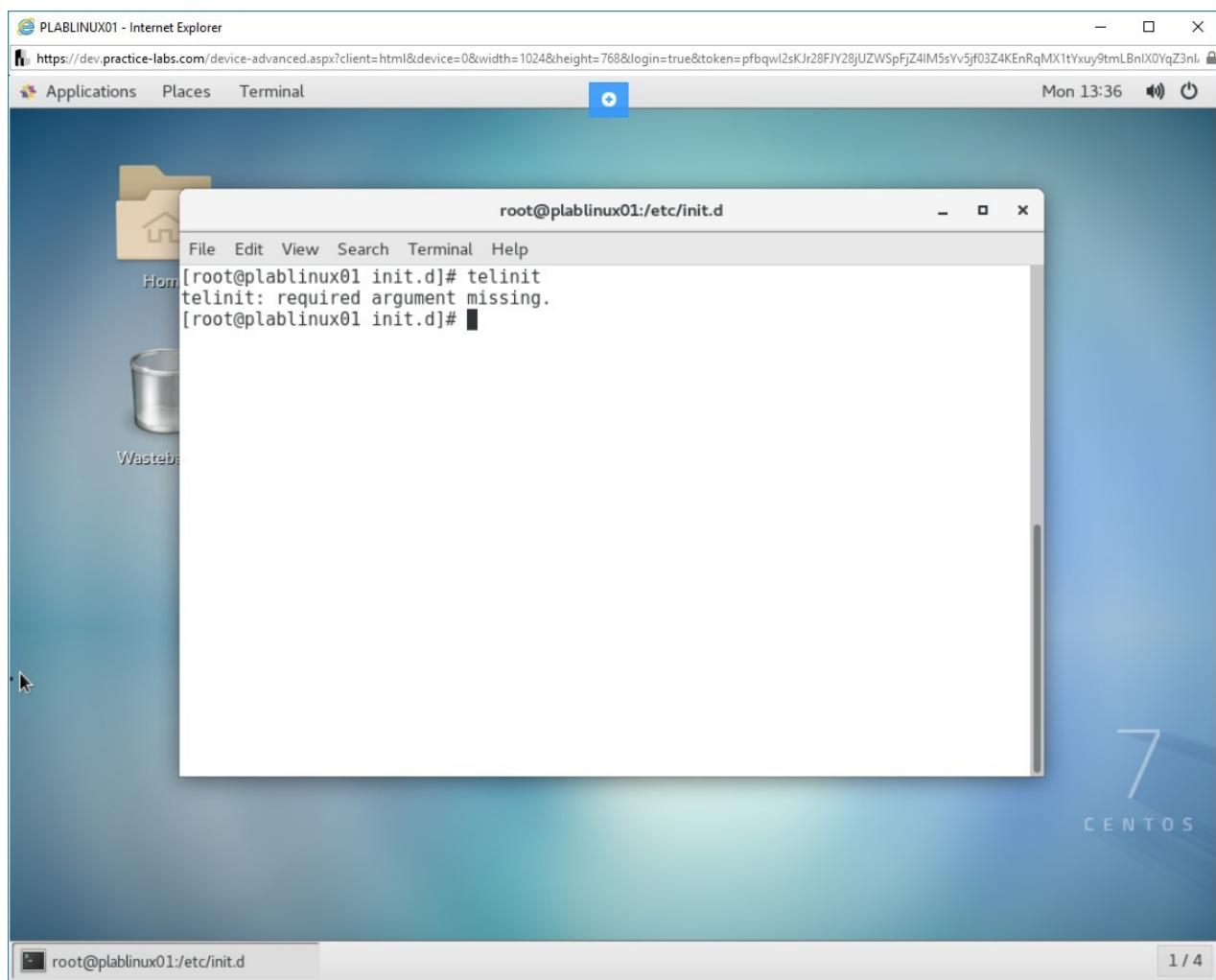


Figure 1.30 Screenshot of PLABLINUX01: Executing the telinit command.

## Step 5

Clear the screen by entering the following command:

```
clear
```

**Systemd** uses service files that are stored in the **/lib/systemd/system** directory. To navigate to this path, type the following command:

```
cd /lib/systemd/system/
```

Press **Enter**.

Notice that the directory path mentioned on the command prompt is changed to **system**.

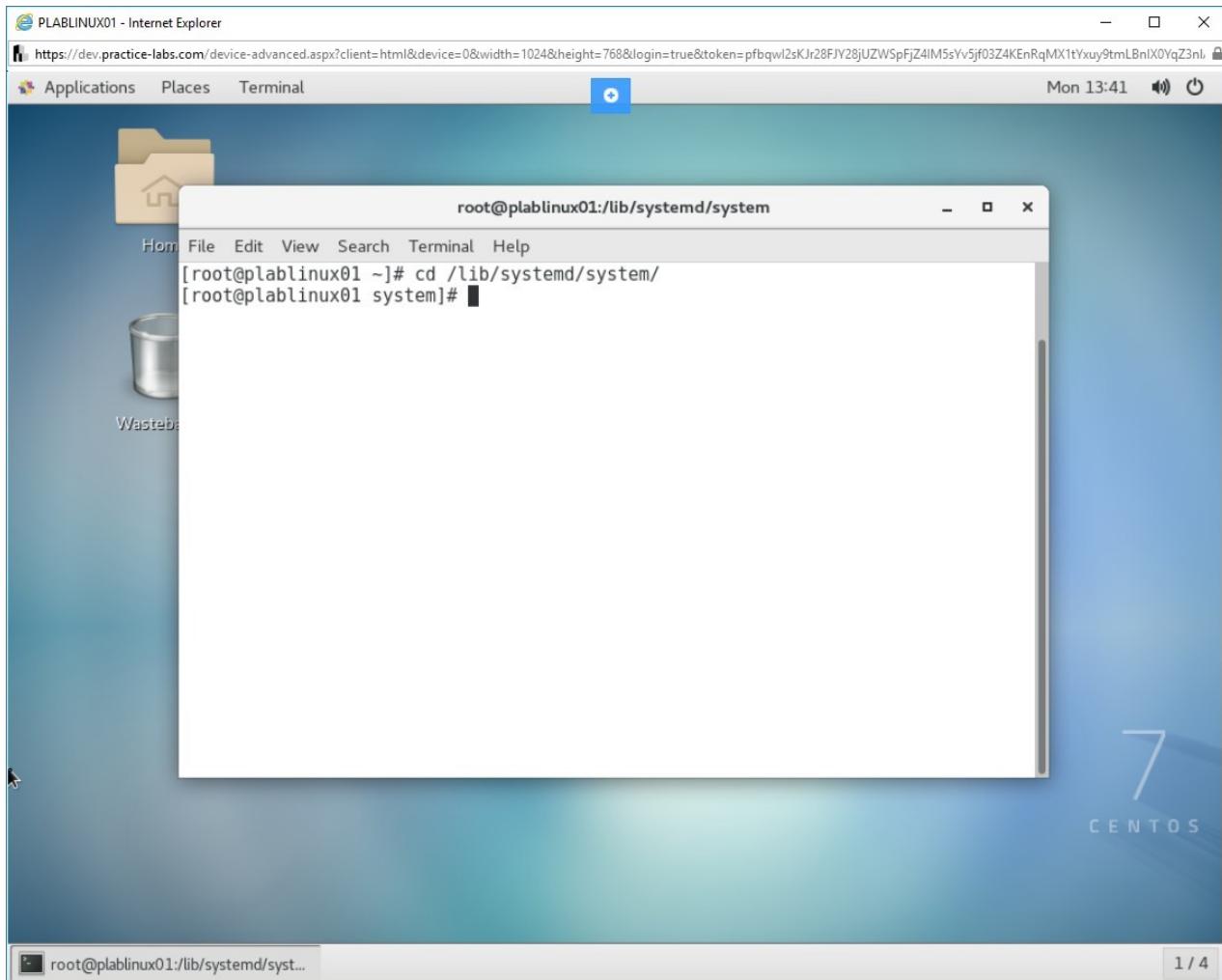


Figure 1.31 Screenshot of PLABLINUX01: Navigating to the **/lib/system/system** directory.

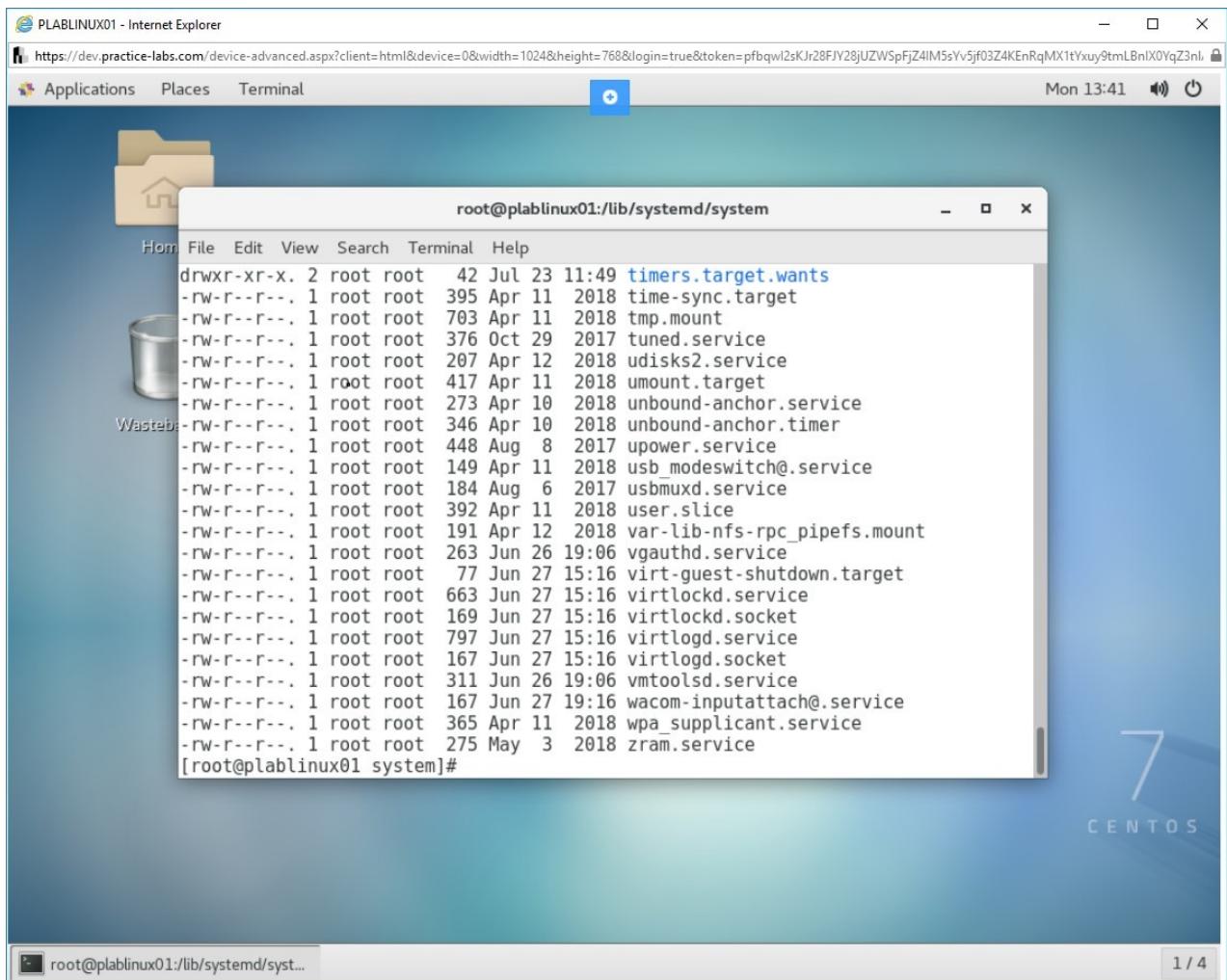
## Step 6

To view the files contained in the **system** directory, type the following command:

```
ls -l
```

Press **Enter**.

You will see the directory listing.



The screenshot shows a terminal window titled "root@plablinux01:/lib/systemd/system". The window displays a long list of files and directories with their permissions, ownership, and timestamps. The files listed are various system service files like timers.target.wants, time-sync.target, tmp.mount, tuned.service, udisks2.service, umount.target, unbound-anchor.service, unbound-anchor.timer, upower.service, usb\_modeswitch@.service, usbmuxd.service, user.slice, var-lib-nfs-rpc\_pipefs.mount, vgaauthd.service, virt-guest-shutdown.target, virtlockd.service, virtlockd.socket, virtlogd.service, virtlogd.socket, vmtoolsd.service, wacom-inputattach@.service, wpa\_supplicant.service, and zram.service. The terminal prompt at the bottom is "[root@plablinux01 system]#".

```
drwxr-xr-x. 2 root root 42 Jul 23 11:49 timers.target.wants
-rw-r--r--. 1 root root 395 Apr 11 2018 time-sync.target
-rw-r--r--. 1 root root 703 Apr 11 2018 tmp.mount
-rw-r--r--. 1 root root 376 Oct 29 2017 tuned.service
-rw-r--r--. 1 root root 207 Apr 12 2018 udisks2.service
-rw-r--r--. 1 root root 417 Apr 11 2018 umount.target
-rw-r--r--. 1 root root 273 Apr 10 2018 unbound-anchor.service
-rw-r--r--. 1 root root 346 Apr 10 2018 unbound-anchor.timer
-rw-r--r--. 1 root root 448 Aug 8 2017 upower.service
-rw-r--r--. 1 root root 149 Apr 11 2018 usb_modeswitch@.service
-rw-r--r--. 1 root root 184 Aug 6 2017 usbmuxd.service
-rw-r--r--. 1 root root 392 Apr 11 2018 user.slice
-rw-r--r--. 1 root root 191 Apr 12 2018 var-lib-nfs-rpc_pipefs.mount
-rw-r--r--. 1 root root 263 Jun 26 19:06 vgaauthd.service
-rw-r--r--. 1 root root 77 Jun 27 15:16 virt-guest-shutdown.target
-rw-r--r--. 1 root root 663 Jun 27 15:16 virtlockd.service
-rw-r--r--. 1 root root 169 Jun 27 15:16 virtlockd.socket
-rw-r--r--. 1 root root 797 Jun 27 15:16 virtlogd.service
-rw-r--r--. 1 root root 167 Jun 27 15:16 virtlogd.socket
-rw-r--r--. 1 root root 311 Jun 26 19:06 vmtoolsd.service
-rw-r--r--. 1 root root 167 Jun 27 19:16 wacom-inputattach@.service
-rw-r--r--. 1 root root 365 Apr 11 2018 wpa_supplicant.service
-rw-r--r--. 1 root root 275 May 3 2018 zram.service
[root@plablinux01 system]#
```

Figure 1.32 Screenshot of PLABLINUX01: Listing the contents of the directory.

## Step 7

Clear the screen by entering the following command:

clear

**Systemctl** is a tool that is used to manage services with the `systemd` command. You can use **systemctl** to enable or disable services as well as check the status of each service. To use this tool, type the following command:

**systemctl**

Press **Enter**.

The screenshot shows a Linux desktop environment with a terminal window open. The terminal window title is "root@plablinux01:/lib/systemd/system". The window displays the output of the command "systemctl status". The output lists various system units with their status, load, active, and description. The terminal window has a blue header bar with icons for Applications, Places, and Terminal. The desktop background is a blue gradient with a "CENTOS 7" watermark. The taskbar at the bottom shows the terminal window and other desktop icons.

```
root@plablinux01:/lib/systemd/system
UNIT           LOAD  ACTIVE SUB      DESCRIPTION
proc-sys-fs-binfmt_misc.automount loaded active waiting  Arbitrary Executable
sys-devices-LNXSYSTEM:00-device:00-PNP0A03:00-device:08-VMBUS:01-00000000\x2d00
sys-devices-LNXSYSTEM:00-device:00-PNP0A03:00-device:08-VMBUS:01-00000000\x2d00
sys-devices-LNXSYSTEM:00-device:00-PNP0A03:00-device:08-VMBUS:01-00000000\x2d00
sys-devices-LNXSYSTEM:00-device:00-PNP0A03:00-device:08-VMBUS:01-31fc2bfc\x2d6d
sys-devices-pci0000:00-0000:00:07.1-ata2-host1-target1:0:0-1:0:0:0-block-sr0.d
sys-devices-platform-floppy.0-block-fd0.device loaded active plugged  /sys/de
sys-devices-platform-serial8250-tty-ttyS2.device loaded active plugged  /sys/
sys-devices-platform-serial8250-tty-ttyS3.device loaded active plugged  /sys/
sys-devices-pnp0-00:03-tty-ttyS0.device loaded active plugged  /sys/devices/p
sys-devices-pnp0-00:04-tty-ttyS1.device loaded active plugged  /sys/devices/p
sys-devices-virtual-block-dm\x2d0.device loaded active plugged  /sys/devices/
sys-devices-virtual-block-dm\x2d1.device loaded active plugged  /sys/devices/
sys-devices-virtual-misc-vmbus\x21hv_kvp.device loaded active plugged  /sys/d
sys-devices-virtual-misc-vmbus\x21hv_vss.device loaded active plugged  /sys/d
sys-devices-virtual-net-virbr0.device loaded active plugged  /sys/devices/vir
sys-devices-virtual-net-virbr0\x2dnic.device loaded active plugged  /sys/devi
sys-module-configfs.device loaded active plugged  /sys/module/configfs
sys-module-fuse.device loaded active plugged  /sys/module/fuse
sys-subsystem-net-devices-eth0.device loaded active plugged  /sys/subsystem/n
sys-subsystem-net-devices-virbr0.device loaded active plugged  /sys/subsystem
sys-subsystem-net-devices-virbr0\x2dnic.device loaded active plugged  /sys/su
lines 1-23
```

Figure 1.33 Screenshot of PLABLINUX01: Using the `systemctl` tool.

## Step 8

To break this command, enter the following command:

```
ctrl + c
```

To check whether a service is enabled or not, type the following command:

```
systemctl is-enabled abrt-ccpp.service
```

Press **Enter**.

Notice that the output of the command confirms that the service is enabled on the system.

**Note:** In the above-mentioned command, *abrt-ccpp.service* is the name of the service. You can check any other service that you want.

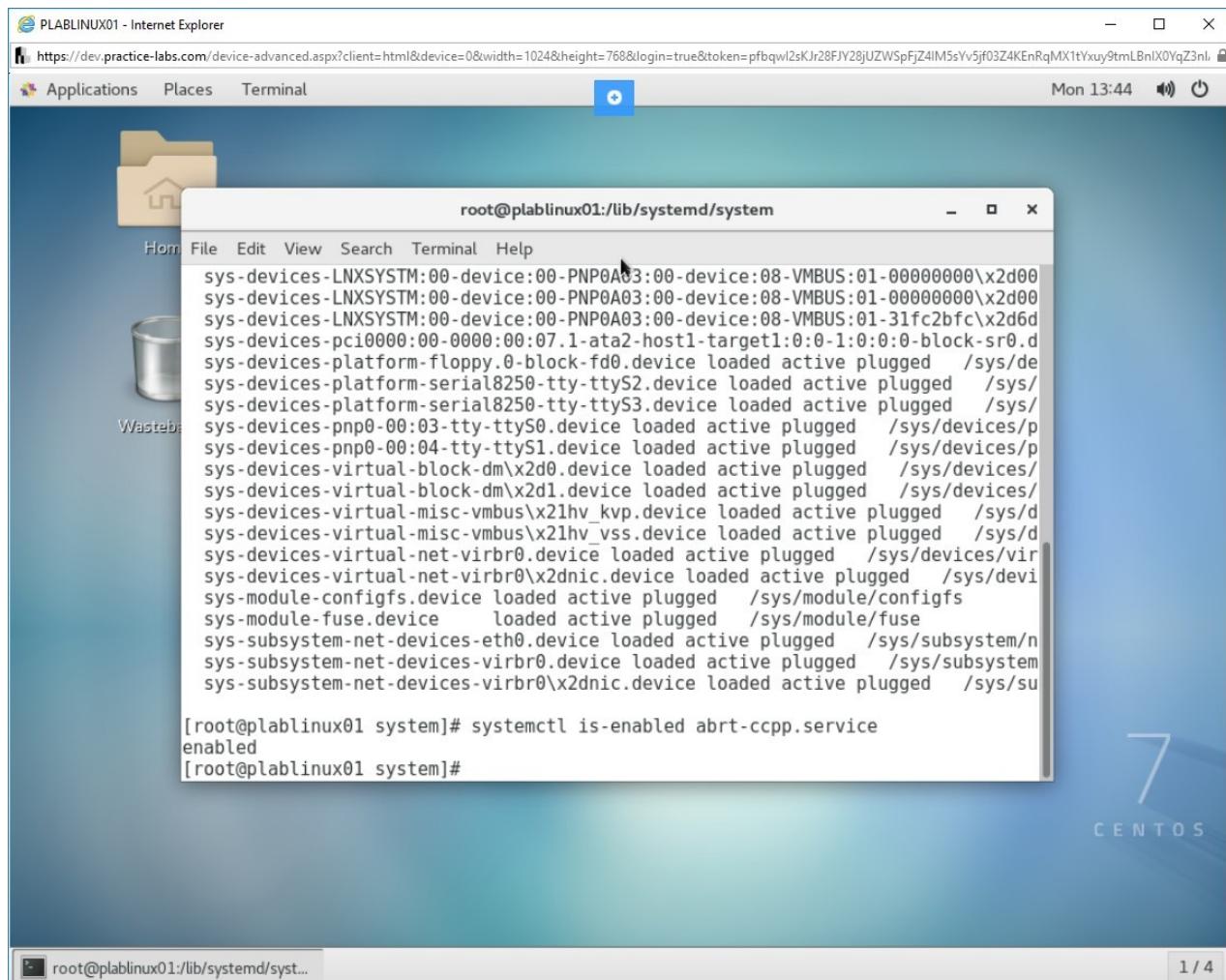


Figure 1.34 Screenshot of PLABLINUX01: Checking the status of a service.

## Step 9

To deactivate a service, type the following command:

```
systemctl stop abrt-ccpp.service
```

Press **Enter**.

**Note:** In the above-mentioned command, **abrt-ccpp.service** is the name of the service. You can check any other service that you want.

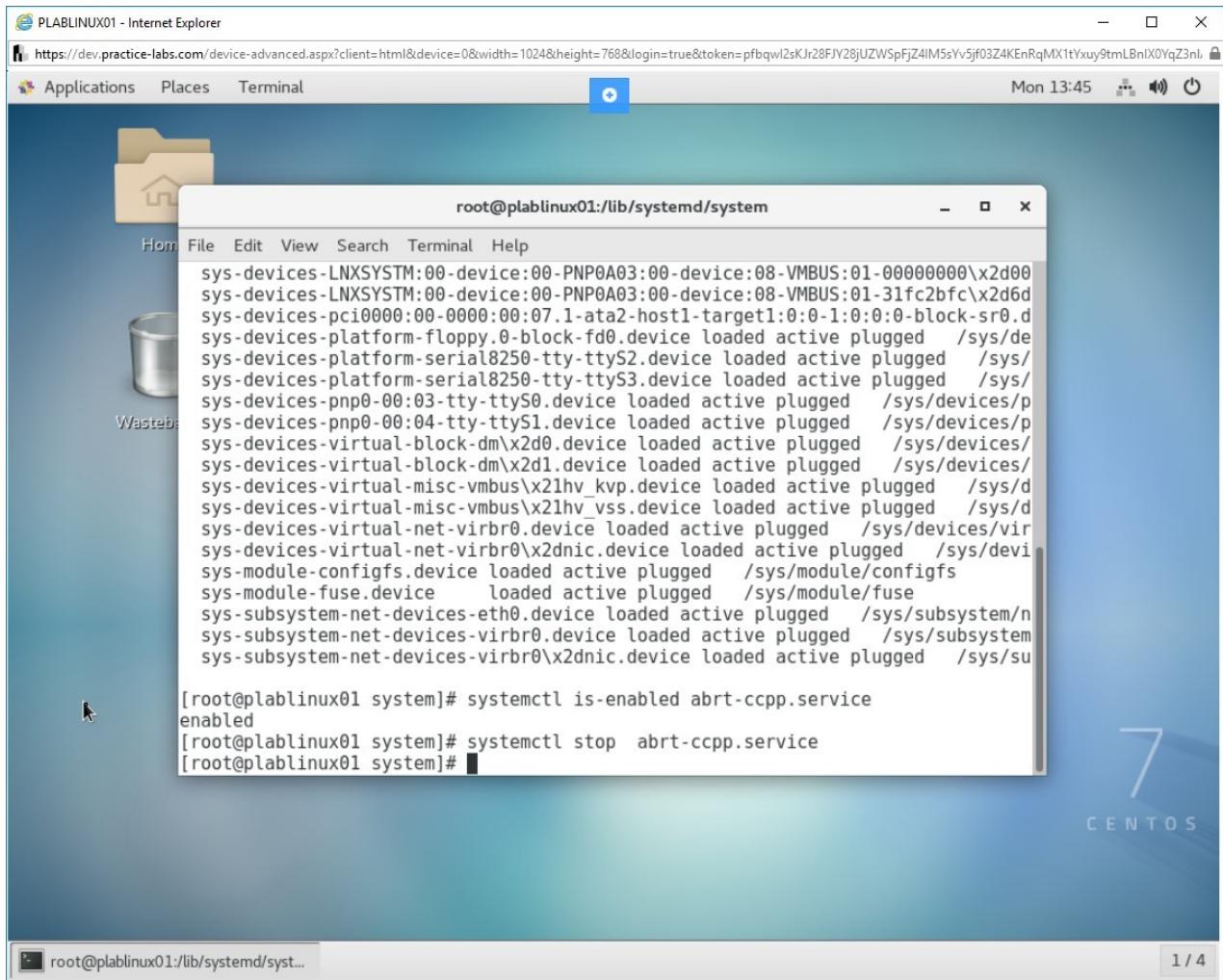


Figure 1.35 Screenshot of PLABLINUX01: Stopping a service.

## Step 10

Clear the screen by entering the following command:

```
clear
```

To verify whether the service is still running, type the following command:

```
systemctl status abrt-ccpp.service
```

Press **Enter**.

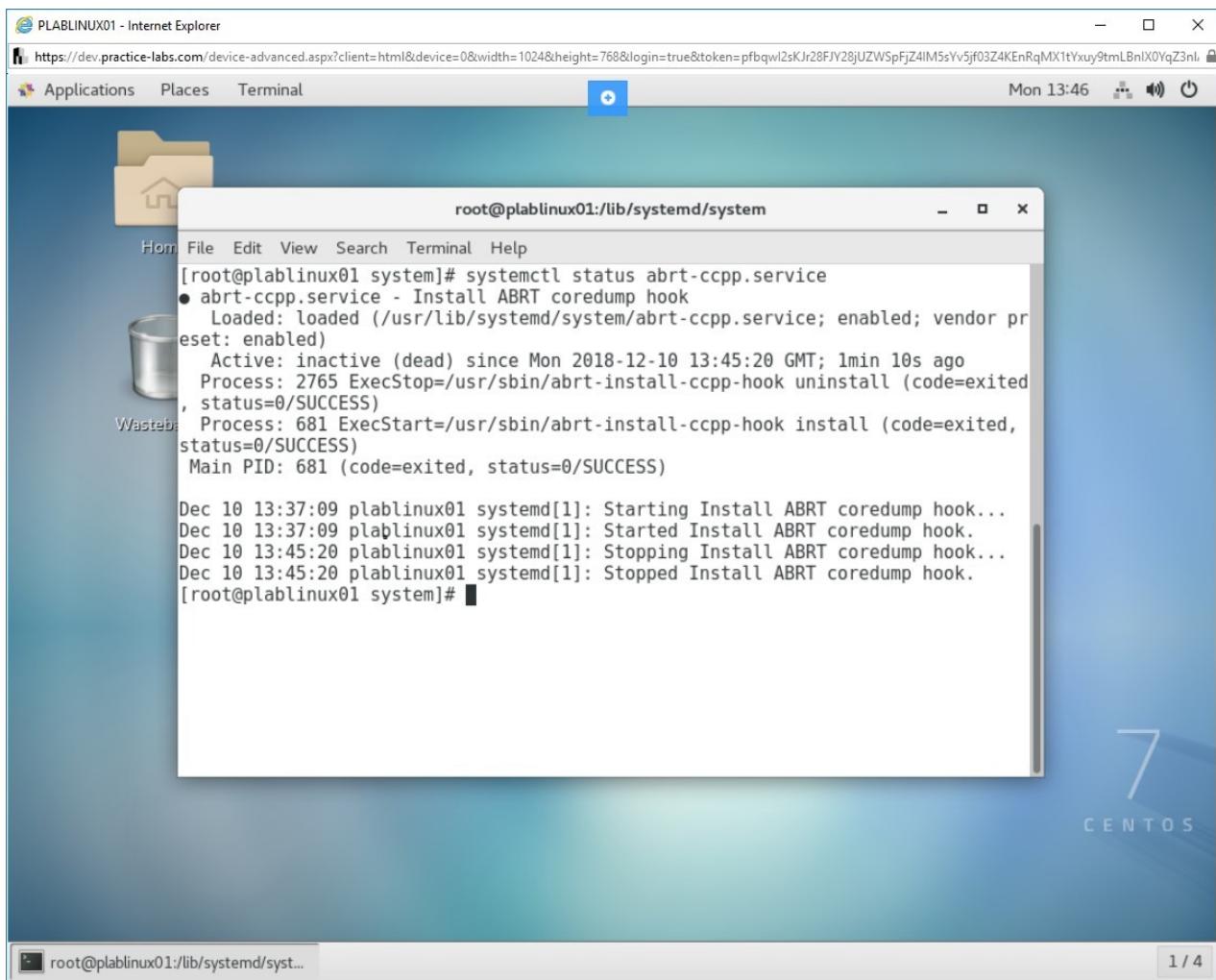


Figure 1.36 Screenshot of PLABLINUX01: Checking the status of a service.

## Step 11

To activate a service, type the following command:

```
systemctl start abrt-ccpp.service
```

Press **Enter**.

**Note:** In the above-mentioned command, **abrt-ccpp.service** is the name of the service. You can check any other service that you want.

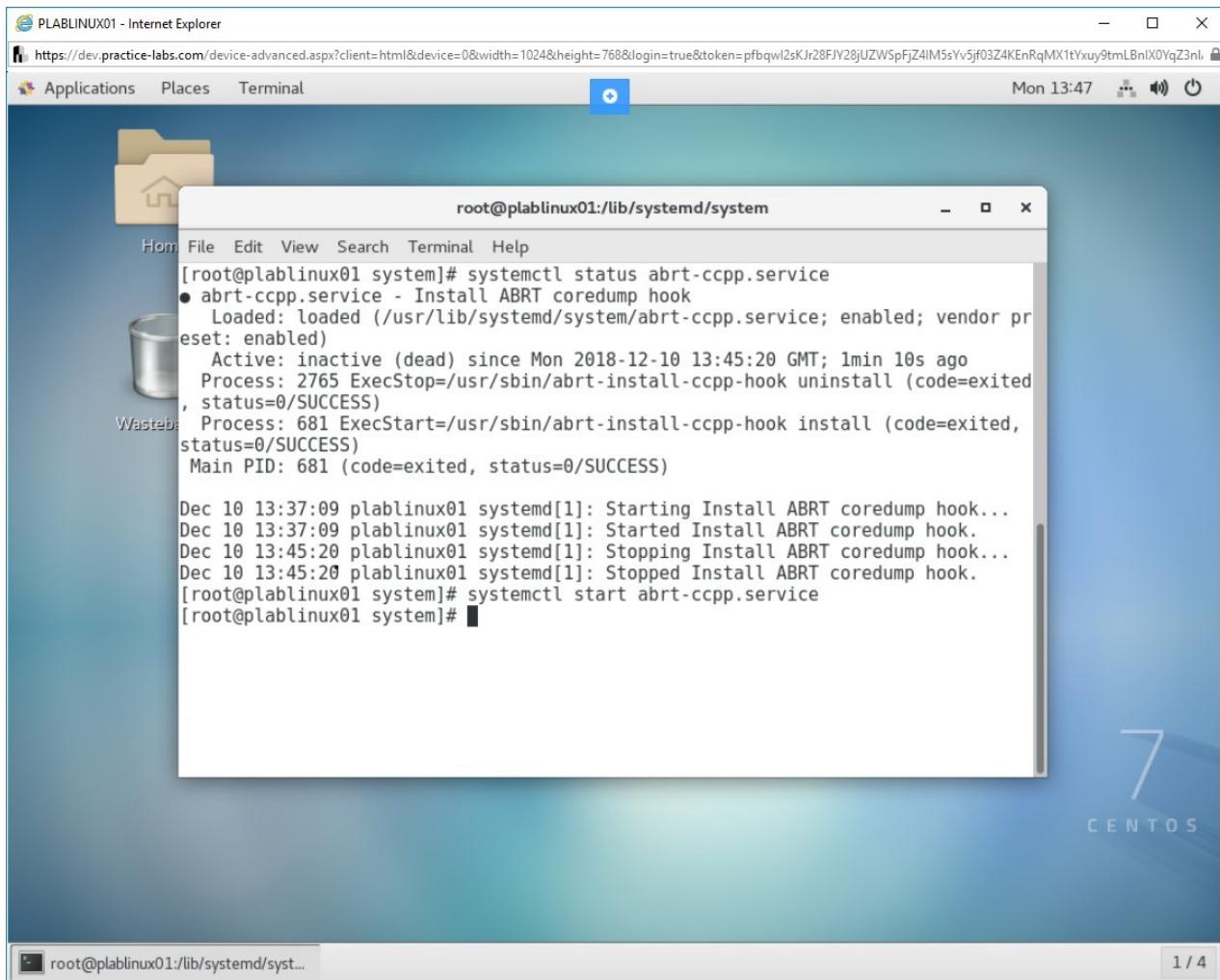


Figure 1.37 Screenshot of PLABLINUX01: Starting a stopped service.

## Step 12

Clear the screen by entering the following command:

```
clear
```

To verify whether the service is enabled and running, type the following command:

```
systemctl status abrt-ccpp.service
```

Press **Enter**.

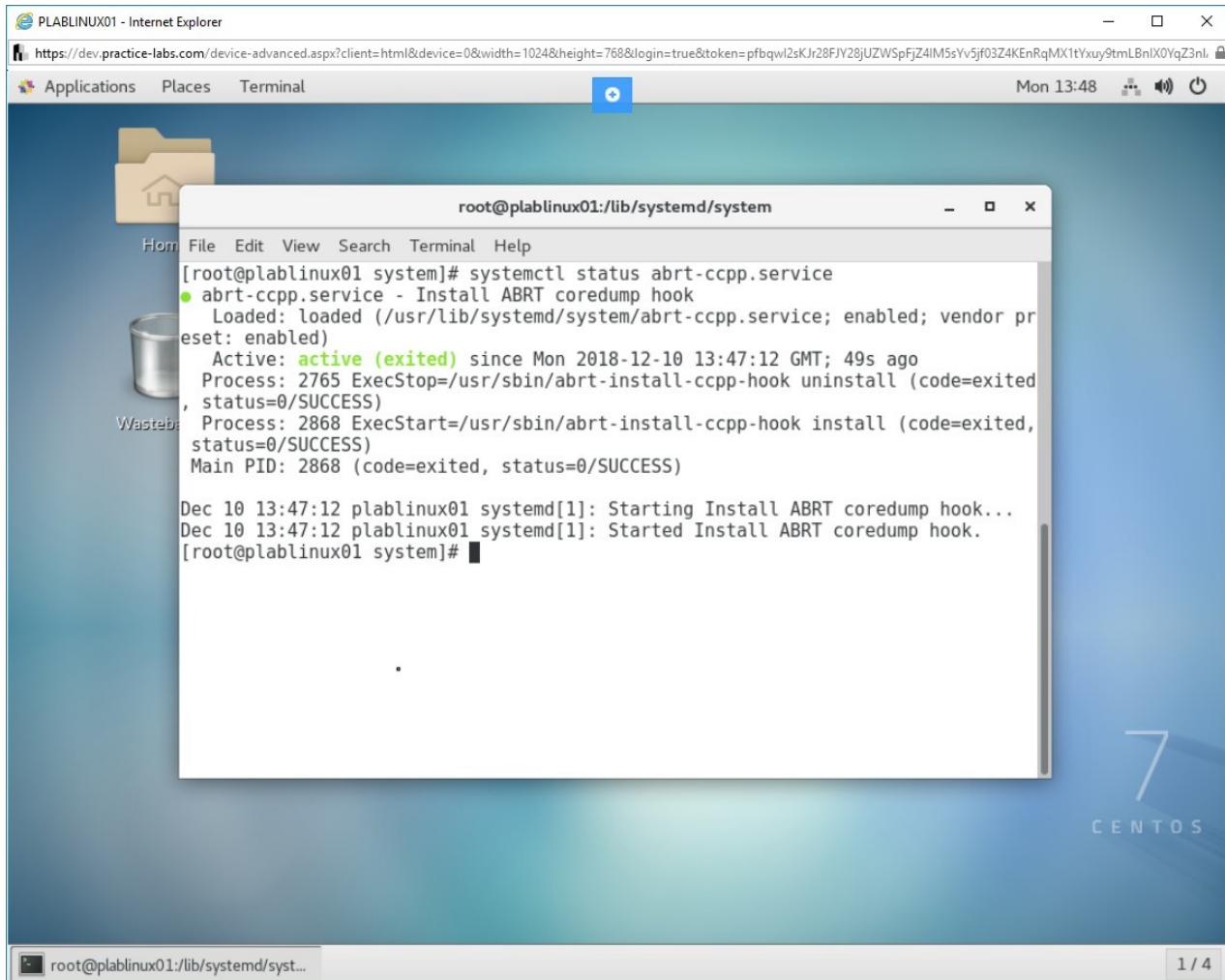


Figure 1.38 Screenshot of PLABLINUX01: Checking the status of a service.

## Step 13

Clear the screen by entering the following command:

```
clear
```

To restart a service, type the following command:

```
systemctl restart abrt-ccpp.service
```

Press **Enter**.

**Note:** In the above-mentioned command, **abrt-ccpp.service** is the name of the service. You can check any other service that you want.

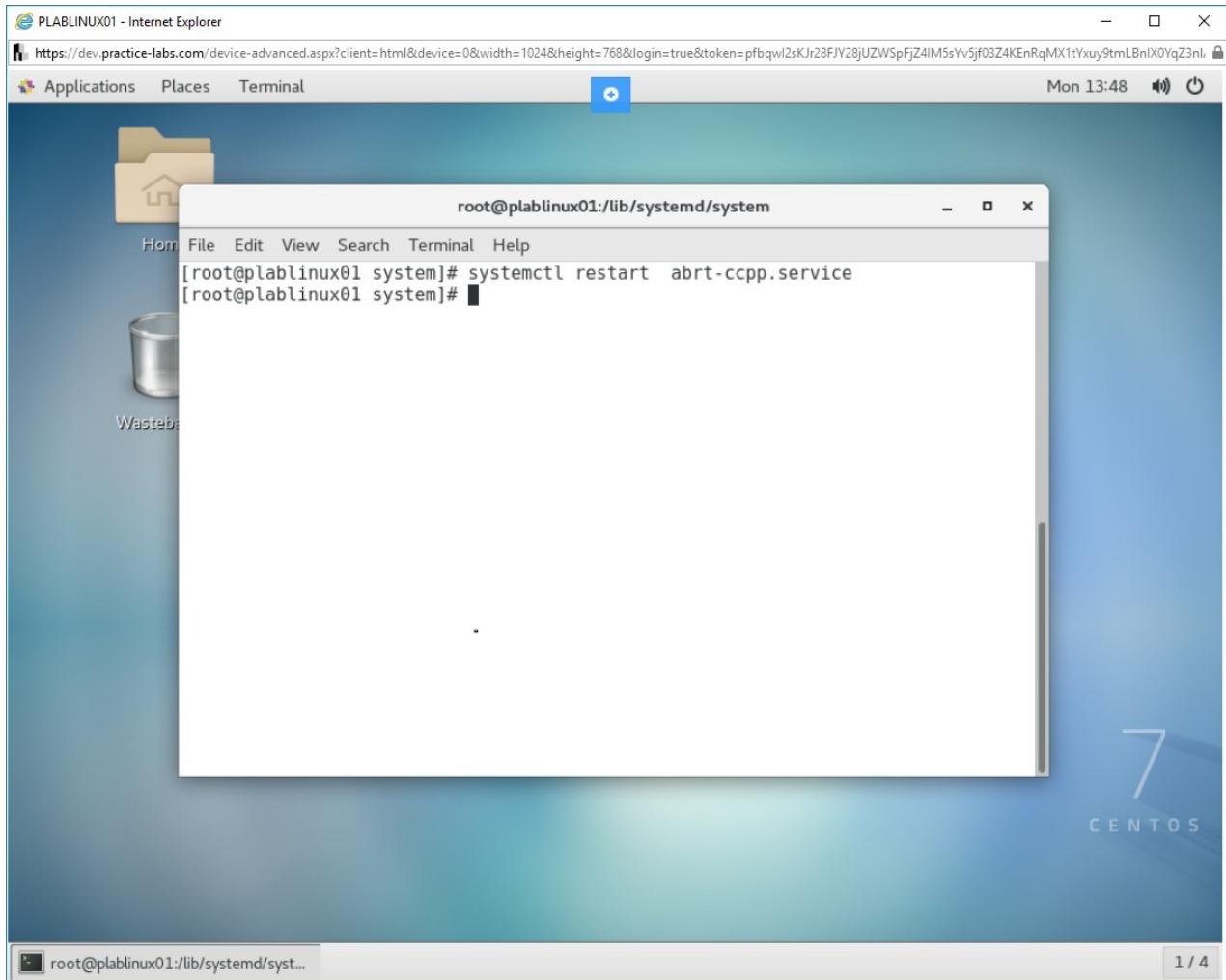


Figure 1.39 Screenshot of PLABLINUX01: Restarting a service.

## Step 14

To enable a service on startup, type the following command:

```
systemctl enable abrt-ccpp.service
```

Press **Enter**.

**Note:** In the above-mentioned command, **abrt-ccpp.service** is the name of the service. You can check any other service that you want.

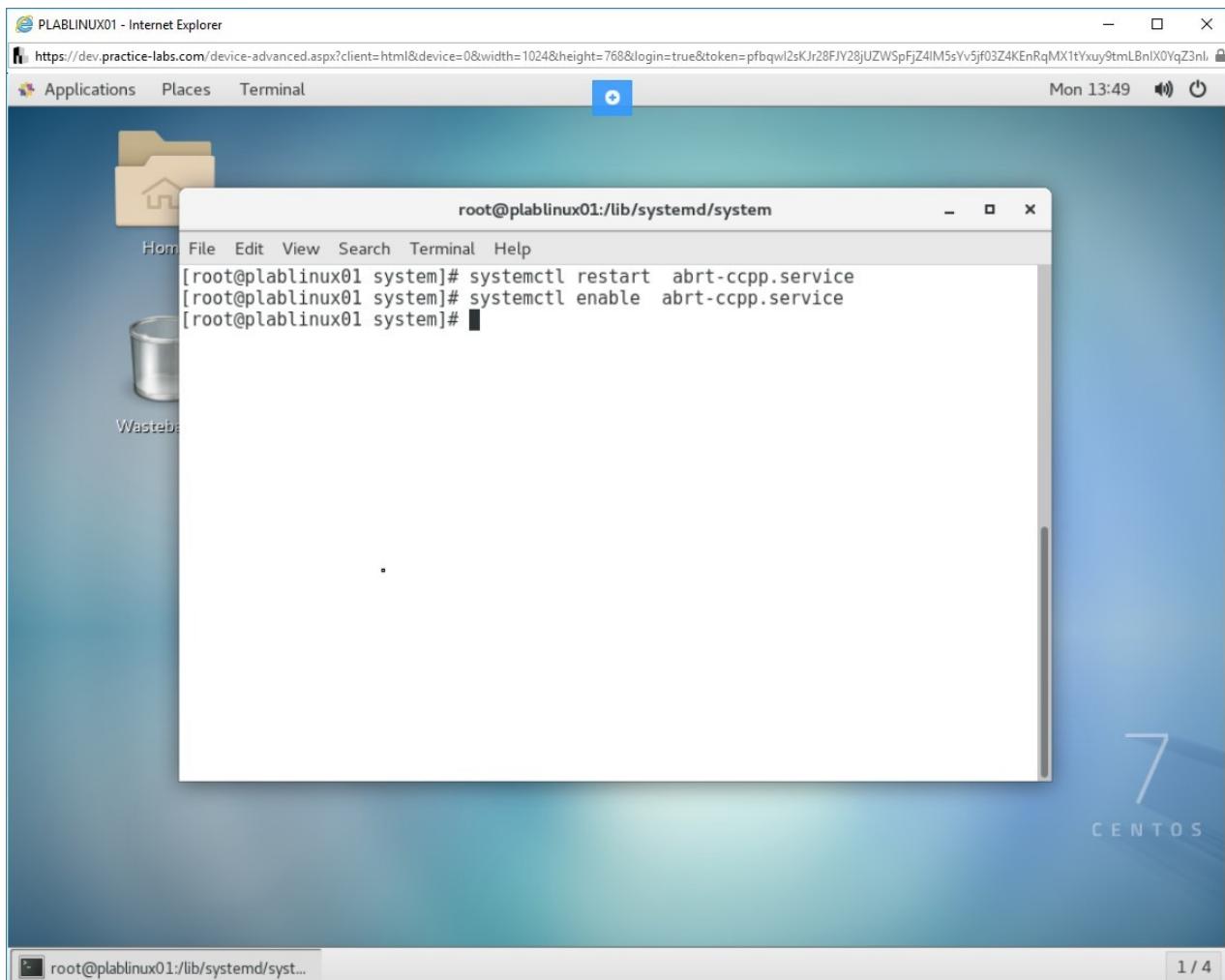


Figure 1.40 Screenshot of PLABLINUX01: Enabling a service on the startup.

## Step 15

To disable a service on startup, type the following command:

```
systemctl disable abrt-ccpp.service
```

Press **Enter**.

**Note:** In the above-mentioned command, **abrt-ccpp.service** is the name of the service. You can check any other service that you want.

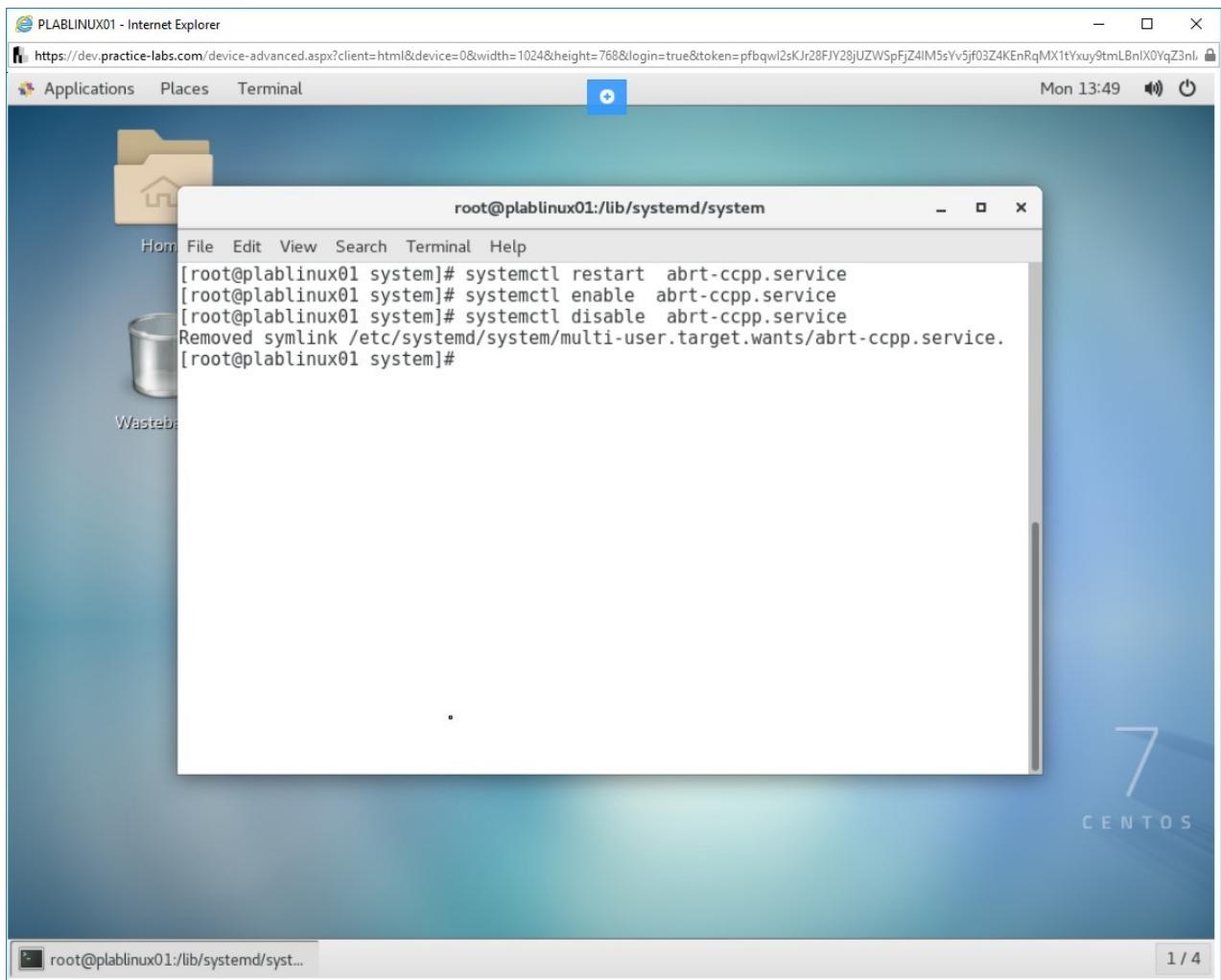


Figure 1.41 Screenshot of PLABLINUX01: Disabling a service.

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

## Review

Well done, you have completed the **Change Runlevels and Shutdown or Reboot System** Practice Lab.

## Summary

You completed the following exercise:

- Exercise 1 - Change Runlevels and Shutdown or Reboot System

You should now be able to:

- Configure a runlevel

- Switch among runlevels
- Shutdown and reboot the system from the command line
- Alert users before switching runlevels or other major system events
- Understand terms and utilities

## Feedback

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