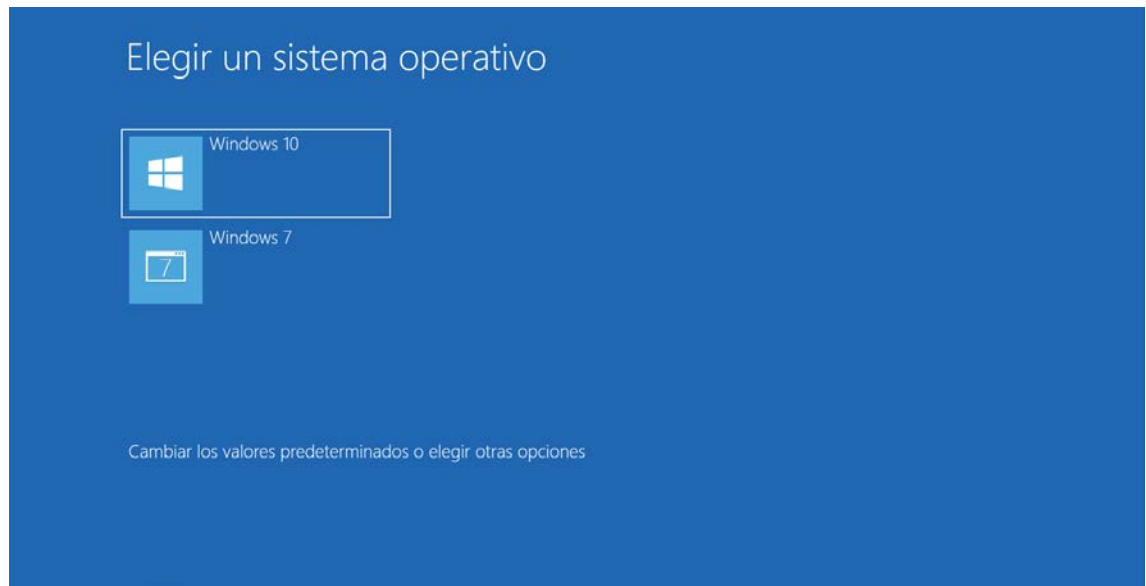


Create a document with screenshots to explain the answer for each exercise

1. Create a virtual machine with two operating systems, Windows 7 and Windows 10 (in this order). Choose Windows 7 as the default operating system, which will boot after 5 seconds unless Windows 10 is manually selected.

I have installed first windows 7 and then windows 10 so the boot-loader working is the windows 10 one.

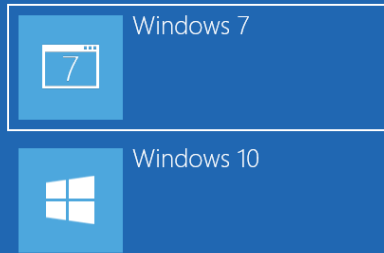


Selecting the default operating system to boot.



← Elegir un sistema operativo predeterminado

El valor predeterminado actual es Windows 7.




Ching the time abiable te select an operating system


← Opciones




⬅ Cambiar el temporizador

Puedes elegir el tiempo de espera antes de que el sistema operativo predeterminado se ejecute automáticamente. La configuración actual es 5 segundos.

 5 minutos

 30 segundos

 5 segundos

Adm. arranque Windows

Elija un sistema operativo que desee iniciar o presione la tecla Tabulador para seleccionar una herramienta:
(Use las teclas de dirección para resaltar su elección y presione Entrar.)

Windows 10
Windows 7 >

Para especificar una opción avanzada de esta elección, presione la tecla F8.
Segundos hasta que la opción resaltada se inicie automáticamente: 3

Herramientas:

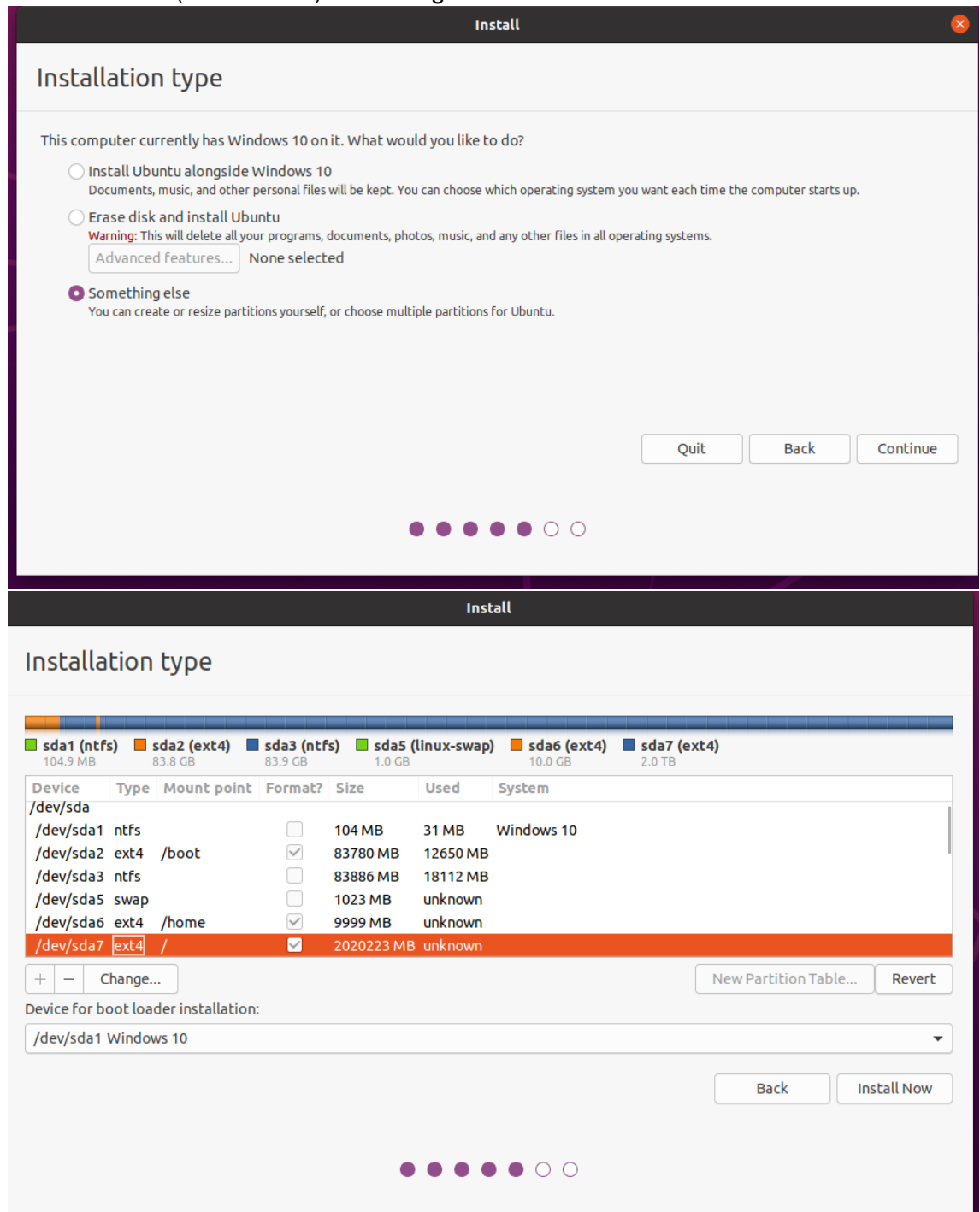
Herramienta de diagnóstico de memoria de Windows

Entrar=Elegir

Tabulador=Menú

Esc=Cancelar

2. Create a virtual machine with two operating systems, Windows 7 (or Windows 10) and Ubuntu 16.04 (in this order) and configure the bootloader to:



Install

Who are you?

Your name: ✓

Your computer's name: ✓
The name it uses when it talks to other computers.

Pick a username: ✓

Choose a password: Fair password

Confirm your password: ✓

☐ Log in automatically
☒ Require my password to log in

Back

Continue

••••••

GNU GRUB version 2.04

*Ubuntu

Advanced options for Ubuntu

Memory test (memtest86+)

Memory test (memtest86+, serial console 115200)

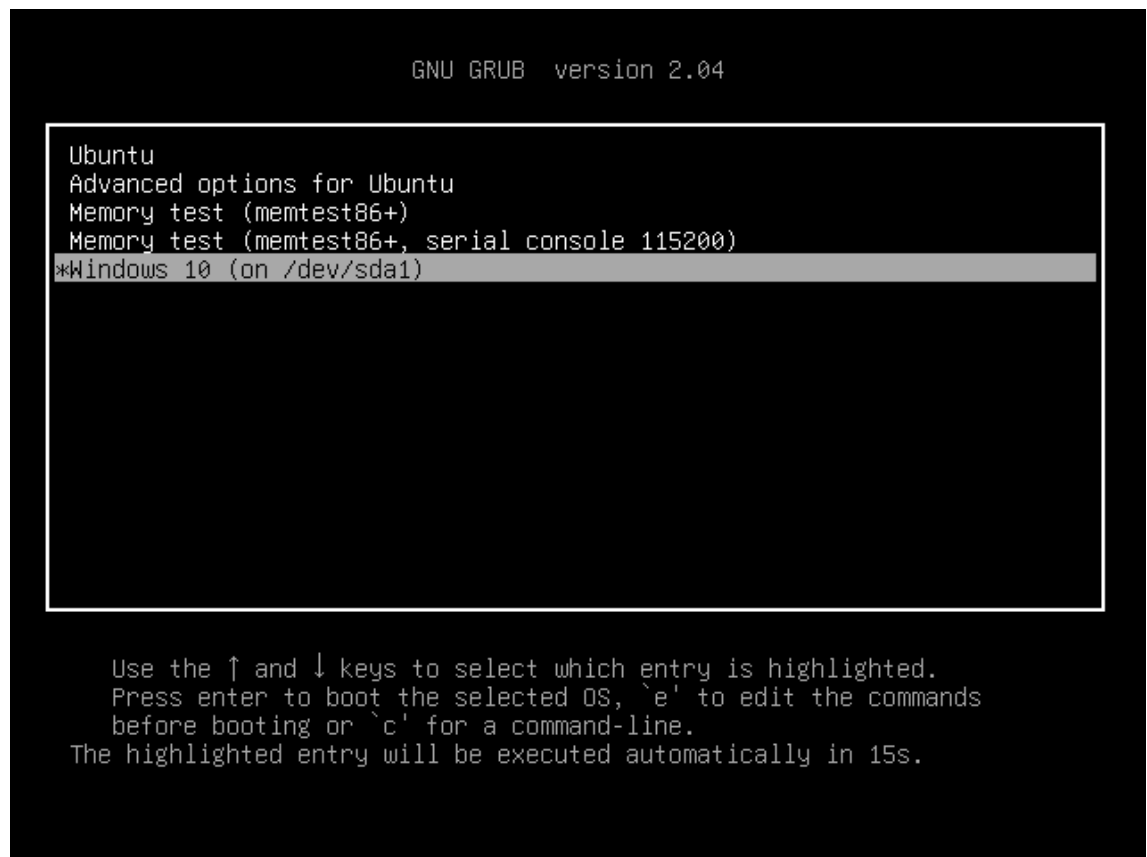
Windows 10 (on /dev/sda1)

Use the ↑ and ↓ keys to select which entry is highlighted.
Press enter to boot the selected OS, 'e' to edit the commands
before booting or 'c' for a command-line.
The highlighted entry will be executed automatically in 9s.

```
odin@odin-VirtualBox: ~  
To run a command as administrator (user "root"), use "sudo <command>".  
See "man sudo_root" for details.  
  
odin@odin-VirtualBox:~$
```

- a. Set Windows as default entry and boot after 15 seconds if the user does not select another option in the menu.

```
odin@odin-VirtualBox: ~  
GNU nano 4.8 /etc/default/grub Modified  
# If you change this file, run 'update-grub' afterwards to update  
# /boot/grub/grub.cfg.  
# For full documentation of the options in this file, see:  
#   info -f grub -n 'Simple configuration'  
  
GRUB_DEFAULT=4  
GRUB_TIMEOUT_STYLE=hidden  
GRUB_TIMEOUT=15  
GRUB_DISTRIBUTOR=`lsb_release -i -s 2> /dev/null || echo Debian`  
GRUB_CMDLINE_LINUX_DEFAULT="quiet splash"  
GRUB_CMDLINE_LINUX=""  
  
# Uncomment to enable BadRAM filtering, modify to suit your needs  
# This works with Linux (no patch required) and with any kernel that obtains  
# the memory map information from GRUB (GNU Mach, kernel of FreeBSD ...)  
#GRUB_BADRAM="0x01234567,0xfefefefefefefefefefef,0x89abcdef,0xefefefefef"  
  
# Uncomment to disable graphical terminal (grub-pc only)  
#GRUB_TERMINAL=console  
  
^G Get Help ^O Write Out ^W Where Is ^K Cut Text ^J Justify ^C Cur Pos  
^X Exit ^R Read File ^\ Replace ^U Paste Text ^T To Spell ^_ Go To Line
```



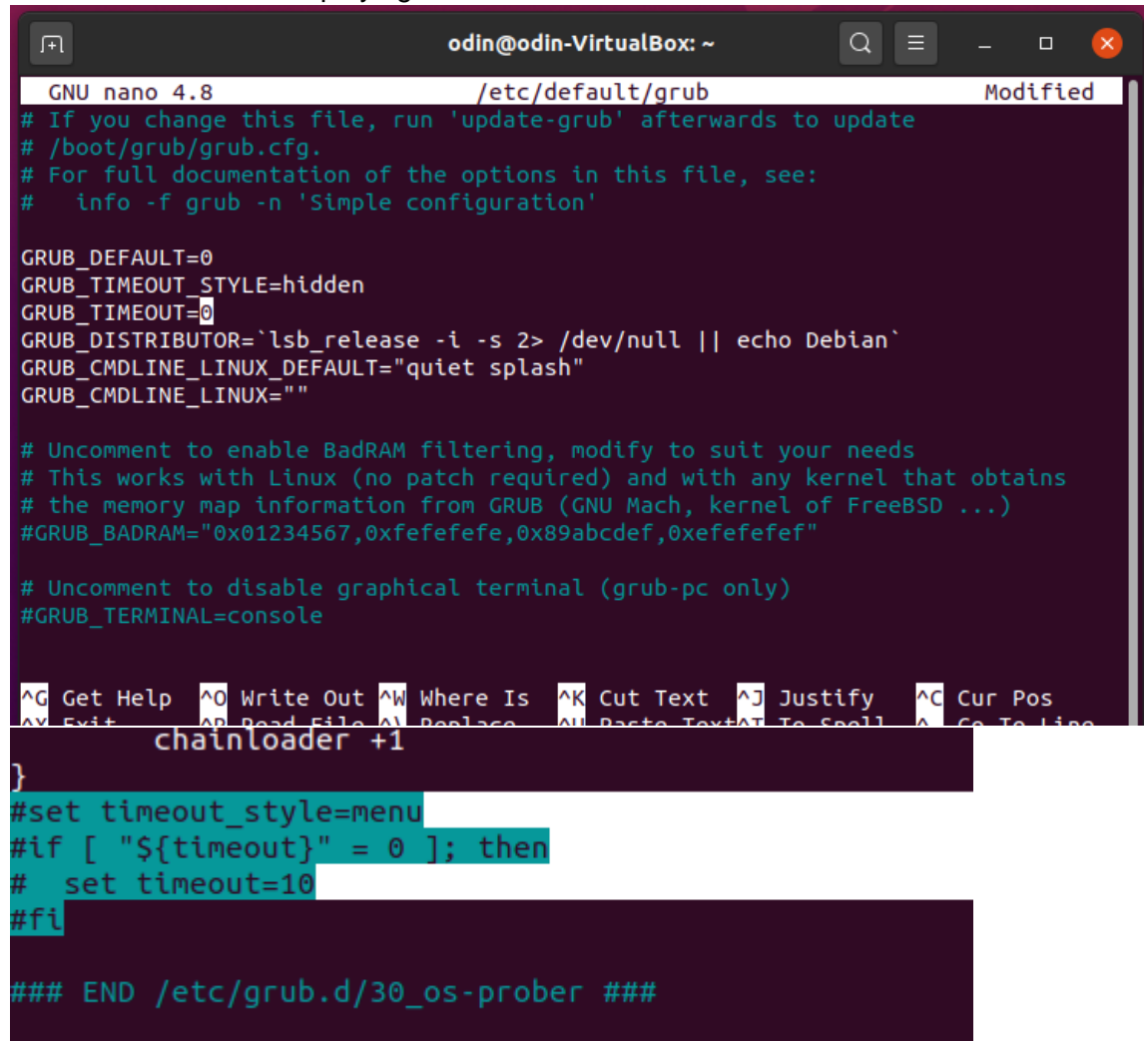
- b. Boot Ubuntu without displaying the menu after showing a 10 seconds countdown.

```
GRUB_DEFAULT=0
GRUB_TIMEOUT_STYLE=hidden
GRUB_TIMEOUT=10
GRUB_DISTRIBUTOR=`lsb_release -i -s 2> /dev/null || echo Debian`
GRUB_CMDLINE_LINUX_DEFAULT="quiet splash"
GRUB_CMDLINE_LINUX=""
```

```
        chainloader +1
    }
    #set timeout_style=menu
    #if [ "${timeout}" = 0 ]; then
    #   set timeout=10
    #fi

### END /etc/grub.d/30_os-prober ###
```

- c. Boot Ubuntu without displaying the menu.



```
odin@odin-VirtualBox: ~
GNU nano 4.8 /etc/default/grub Modified
# If you change this file, run 'update-grub' afterwards to update
# /boot/grub/grub.cfg.
# For full documentation of the options in this file, see:
#   info -f grub -n 'Simple configuration'

GRUB_DEFAULT=0
GRUB_TIMEOUT_STYLE=hidden
GRUB_TIMEOUT=0
GRUB_DISTRIBUTOR=`lsb_release -i -s 2> /dev/null || echo Debian`
GRUB_CMDLINE_LINUX_DEFAULT="quiet splash"
GRUB_CMDLINE_LINUX=""

# Uncomment to enable BadRAM filtering, modify to suit your needs
# This works with Linux (no patch required) and with any kernel that obtains
# the memory map information from GRUB (GNU Mach, kernel of FreeBSD ...)
#GRUB_BADRAM="0x01234567,0xfefefefefefefefefefef,0x89abcdef,0xefefefefef"

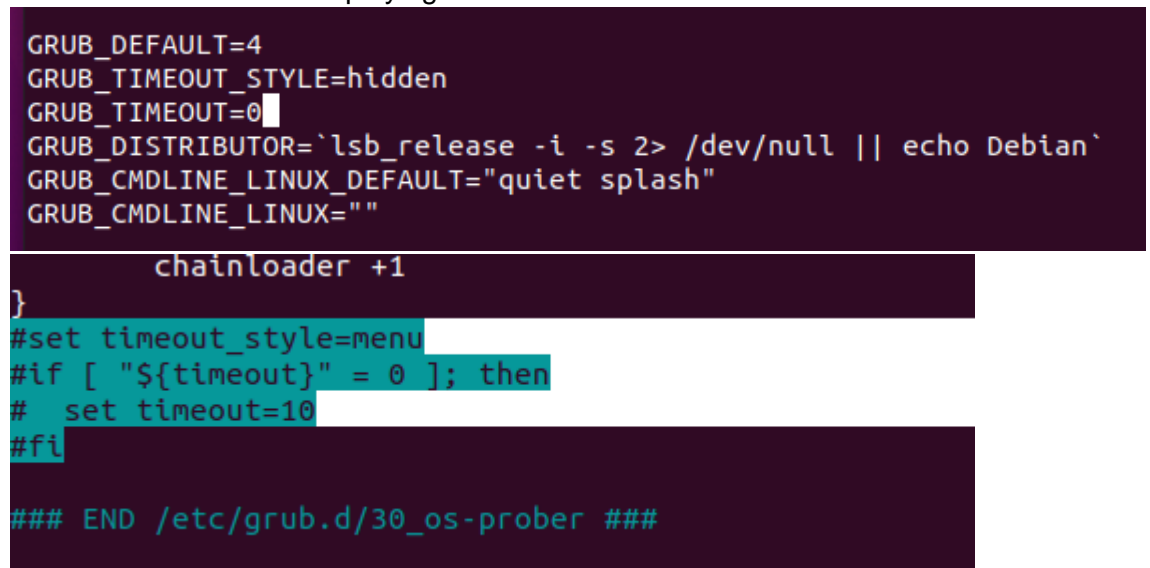
# Uncomment to disable graphical terminal (grub-pc only)
#GRUB_TERMINAL=console

^G Get Help ^O Write Out ^W Where Is ^K Cut Text ^J Justify ^C Cur Pos
^Y Exit ^P Read File ^R Replace ^U Paste Text ^T To Spell ^_ Go To Line

chainloader +1
}
#set timeout_style=menu
#if [ "${timeout}" = 0 ]; then
# set timeout=10
#fi

### END /etc/grub.d/30_os-prober ###
```

- d. Boot Windows without displaying the menu.



```
odin@odin-VirtualBox: ~
GNU nano 4.8 /etc/default/grub Modified
# If you change this file, run 'update-grub' afterwards to update
# /boot/grub/grub.cfg.
# For full documentation of the options in this file, see:
#   info -f grub -n 'Simple configuration'

GRUB_DEFAULT=4
GRUB_TIMEOUT_STYLE=hidden
GRUB_TIMEOUT=0
GRUB_DISTRIBUTOR=`lsb_release -i -s 2> /dev/null || echo Debian`
GRUB_CMDLINE_LINUX_DEFAULT="quiet splash"
GRUB_CMDLINE_LINUX=""

# Uncomment to enable BadRAM filtering, modify to suit your needs
# This works with Linux (no patch required) and with any kernel that obtains
# the memory map information from GRUB (GNU Mach, kernel of FreeBSD ...)
#GRUB_BADRAM="0x01234567,0xfefefefefefefefefefef,0x89abcdef,0xefefefefef"

# Uncomment to disable graphical terminal (grub-pc only)
#GRUB_TERMINAL=console

^G Get Help ^O Write Out ^W Where Is ^K Cut Text ^J Justify ^C Cur Pos
^Y Exit ^P Read File ^R Replace ^U Paste Text ^T To Spell ^_ Go To Line

chainloader +1
}
#set timeout_style=menu
#if [ "${timeout}" = 0 ]; then
# set timeout=10
#fi

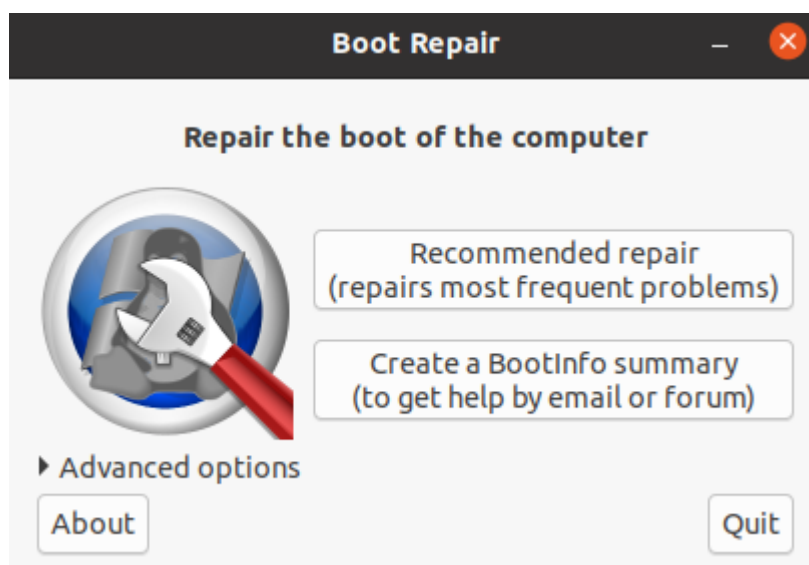
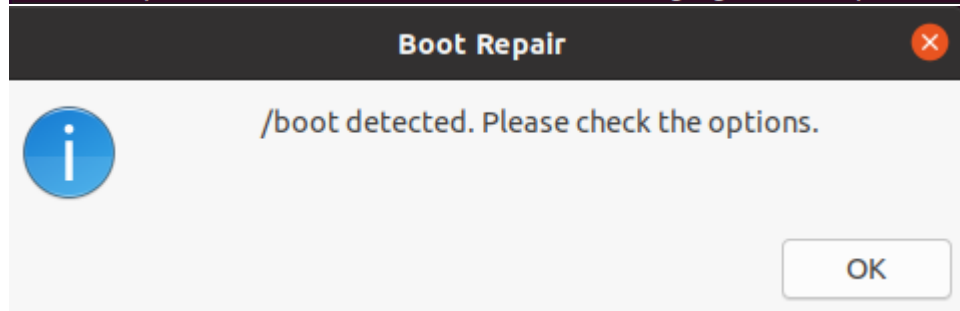
### END /etc/grub.d/30_os-prober ###
```

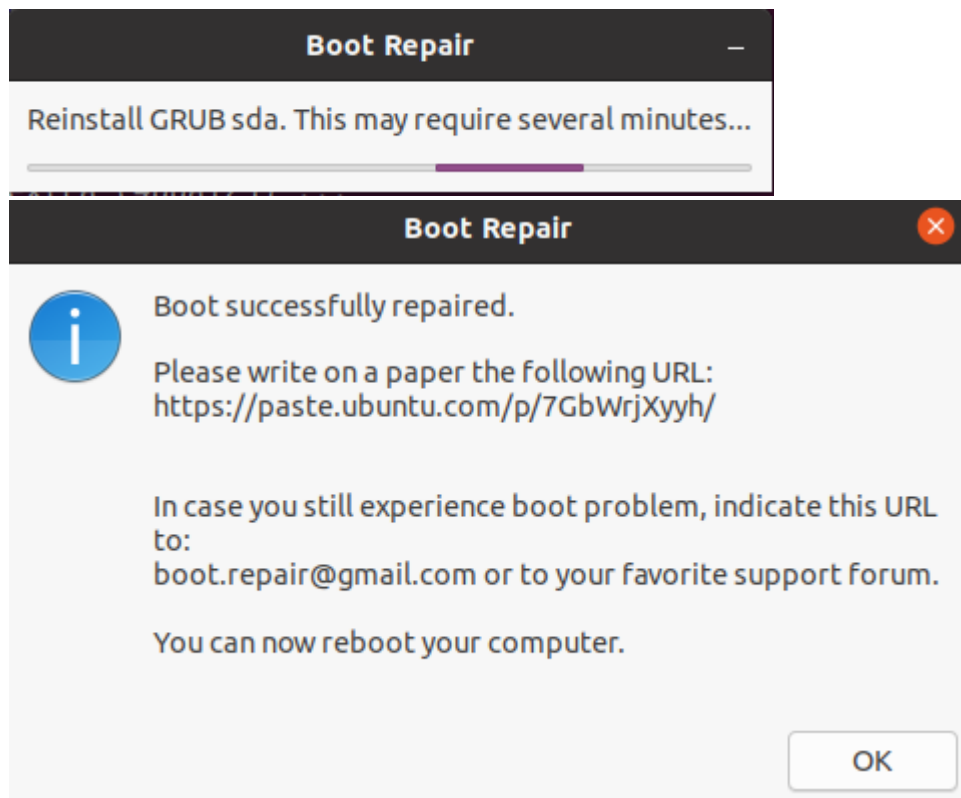

3. If you lose the bootloader in exercise 2, use the tool “Boot-Repair”, which will let you solve the issue. If necessary, use the following the instructions in the URL:

```
ubuntu@ubuntu:~$ sudo add-apt-repository ppa:yannubuntu/boot-repair
Simple tool to repair frequent boot problems.

Website: https://sourceforge.net/p/boot-repair/home
More info: https://launchpad.net/~yannubuntu/+archive/ubuntu/boot-repair
Press [ENTER] to continue or Ctrl-c to cancel adding it.

ubuntu@ubuntu:~$ sudo apt update
Ign:1 cdrom://Ubuntu 20.04 LTS _Focal Fossa_ - Release amd64 (20200423) focal InRelease
Hit:2 cdrom://Ubuntu 20.04 LTS _Focal Fossa_ - Release amd64 (20200423) focal Release
Hit:3 http://ppa.launchpad.net/yannubuntu/boot-repair/ubuntu focal InRelease
Hit:4 http://security.ubuntu.com/ubuntu focal-security InRelease
Hit:5 http://archive.ubuntu.com/ubuntu focal InRelease
Hit:6 http://archive.ubuntu.com/ubuntu focal-updates InRelease
Reading package lists... Done
Building dependency tree
Reading state information... Done
522 packages can be upgraded. Run 'apt list --upgradable' to see them.
ubuntu@ubuntu:~$ sudo apt install -y boot-repair && boot-repair
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  boot-sav boot-sav-extra efibootmgr glade2script glade2script-python3
  pastebinit
Suggested packages:
  boot-info mdadm os-uninstaller gir1.2-appindicator3-0.1
The following NEW packages will be installed:
  boot-repair boot-sav boot-sav-extra efibootmgr glade2script
```





<https://help.ubuntu.com/community/Boot-Repair>

