## UNIT 02: DUAL BOOT EXERCISES

4.  **Create a virtual machine with two operating systems, Windows 7 (or Windows 10) and Ubuntu 20.04 (in this order) and configure the bootloader to:**

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

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

    c)  Boot Ubuntu without displaying the menu.

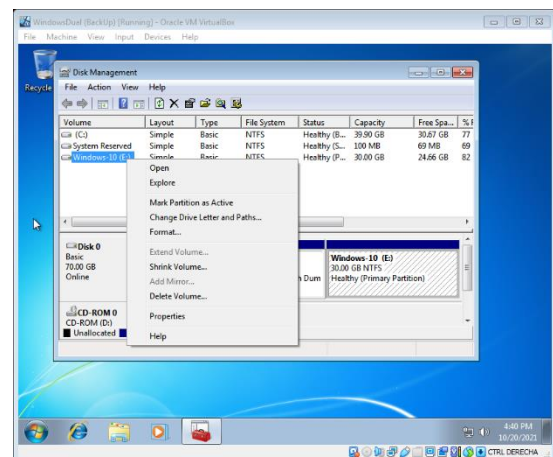    d)  Boot Windows without displaying the menu.

**NOTE:** 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:
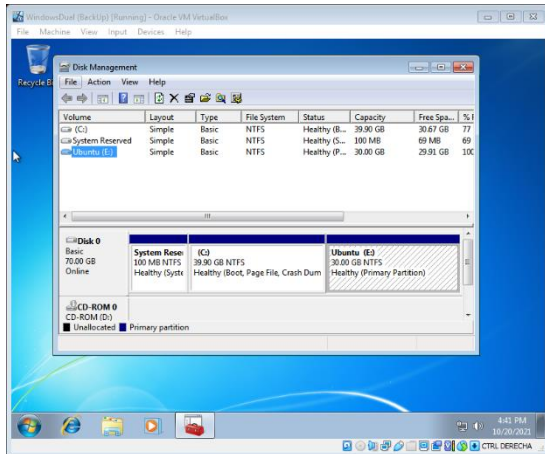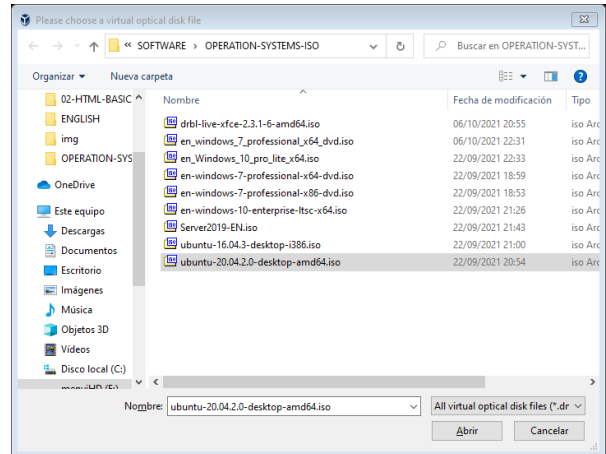
https://help.ubuntu.com/community/Boot-Repair

**STEPS**
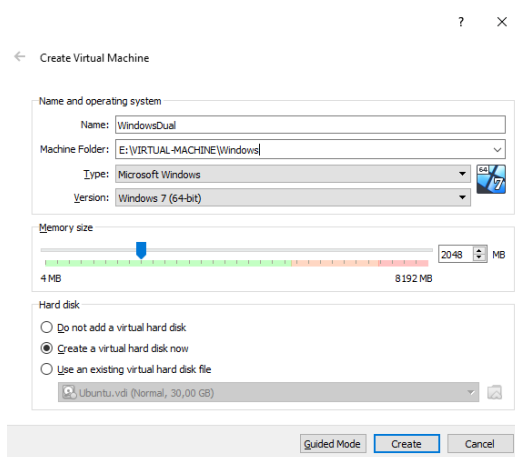




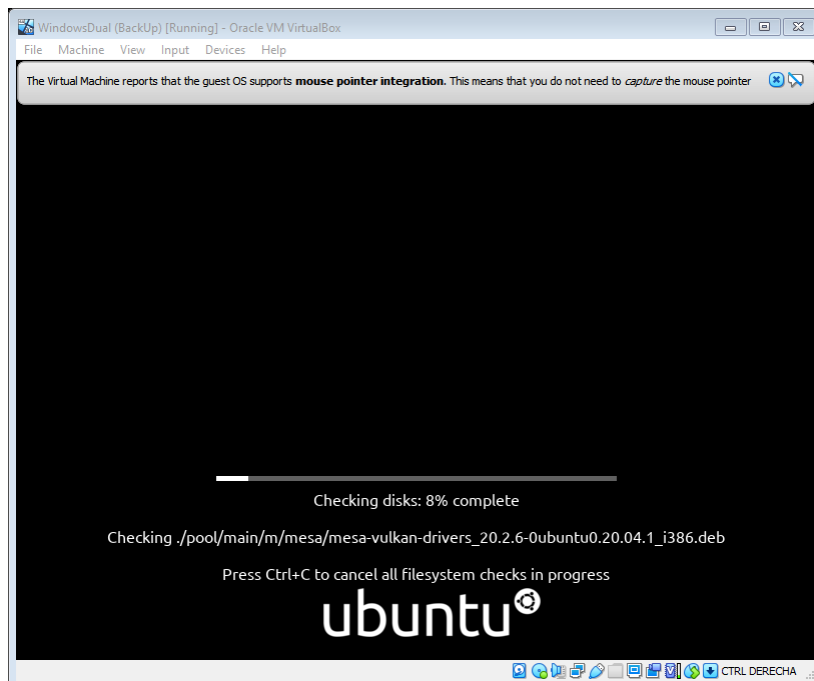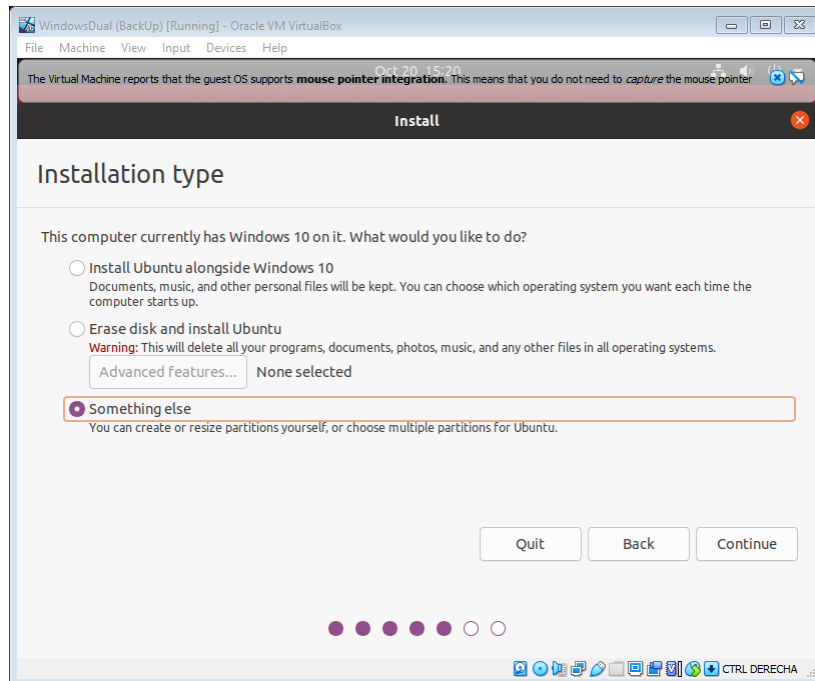| The **VM** created from the previous exercises renamed **WindowsLinux**. | **Format** the Windows 10 partition > **Disk Management** > Format. |

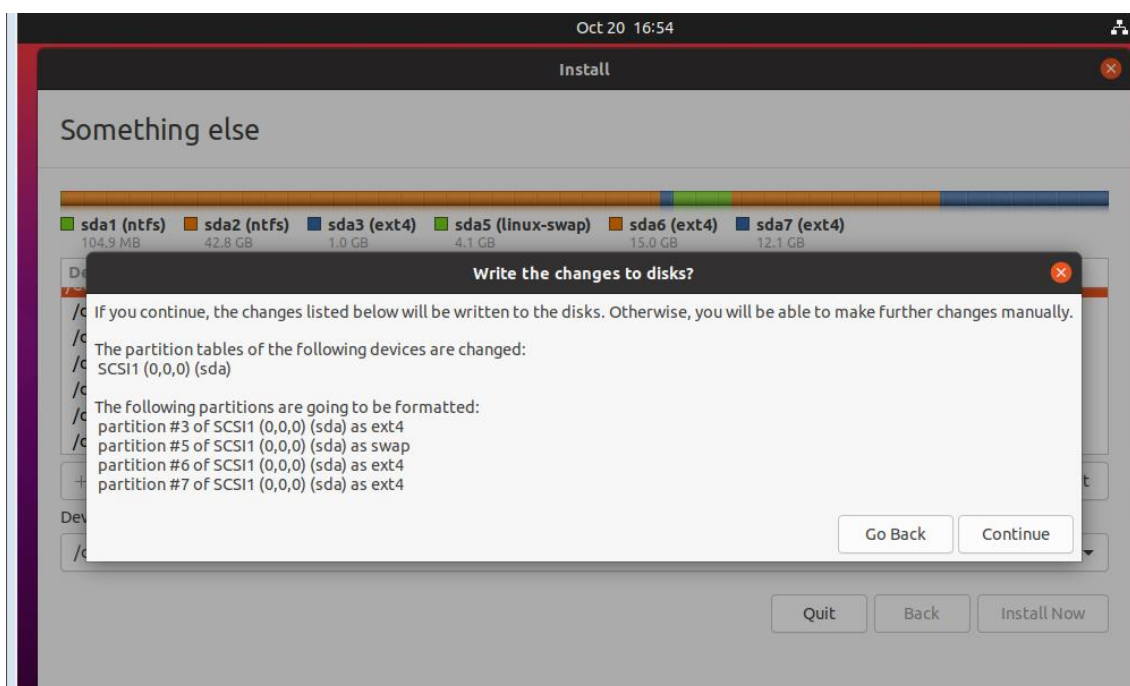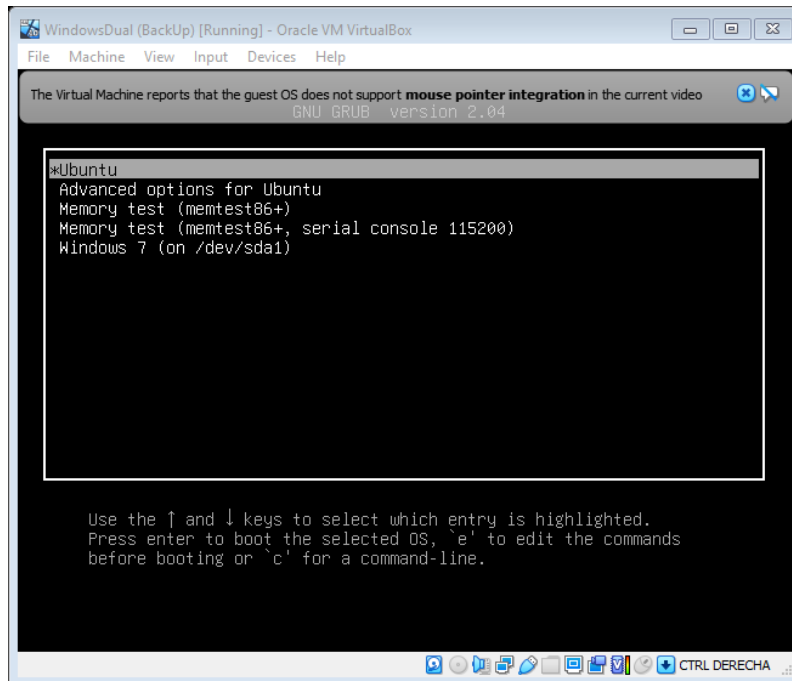| Disk has been formatted and **renamed Ubuntu**. | Back to VirtualBox to **install Ubuntu**. |



Ubuntu installation.

Installation type > **Something else to create the partitions.**



Partitions are created > **Continue.**

Both operating systems are installed and ready to **boot > Ubuntu**.



Ubuntu **terminal**.

```
                                  root@menyi-WndowsLinux: /home/menyi       Q    ≡    _   □   ✕

  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="0x01234567,0xfefefefe,0x89abcdef,0xefefefef"

# 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
```
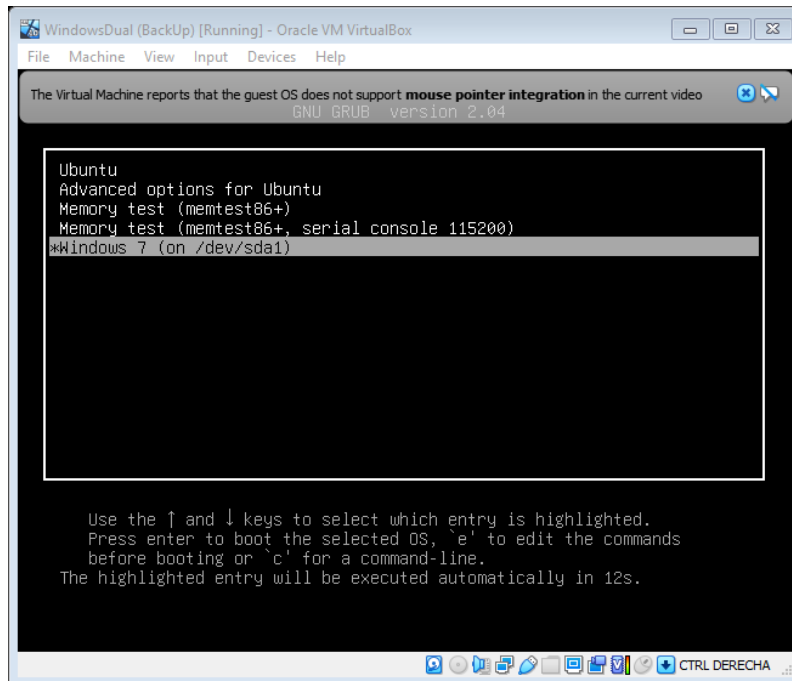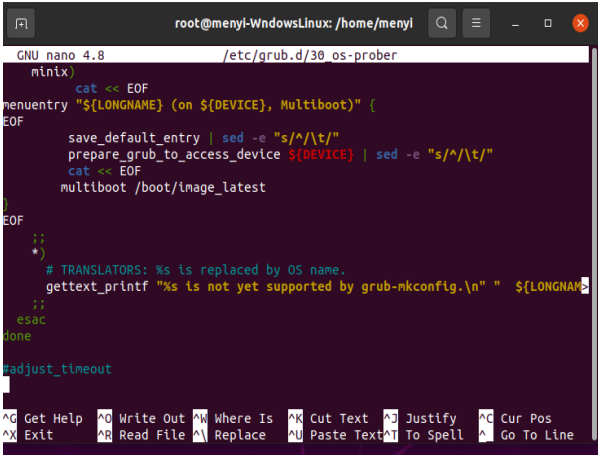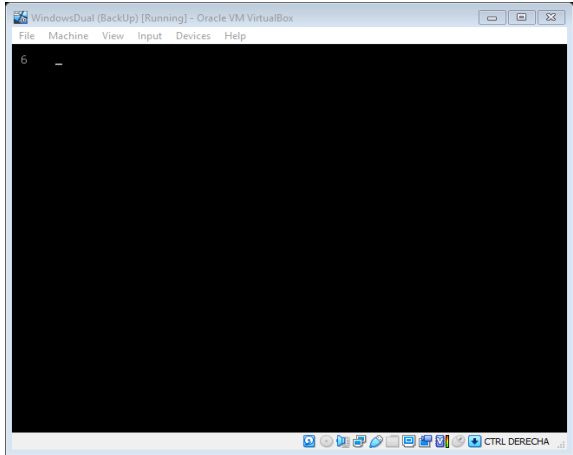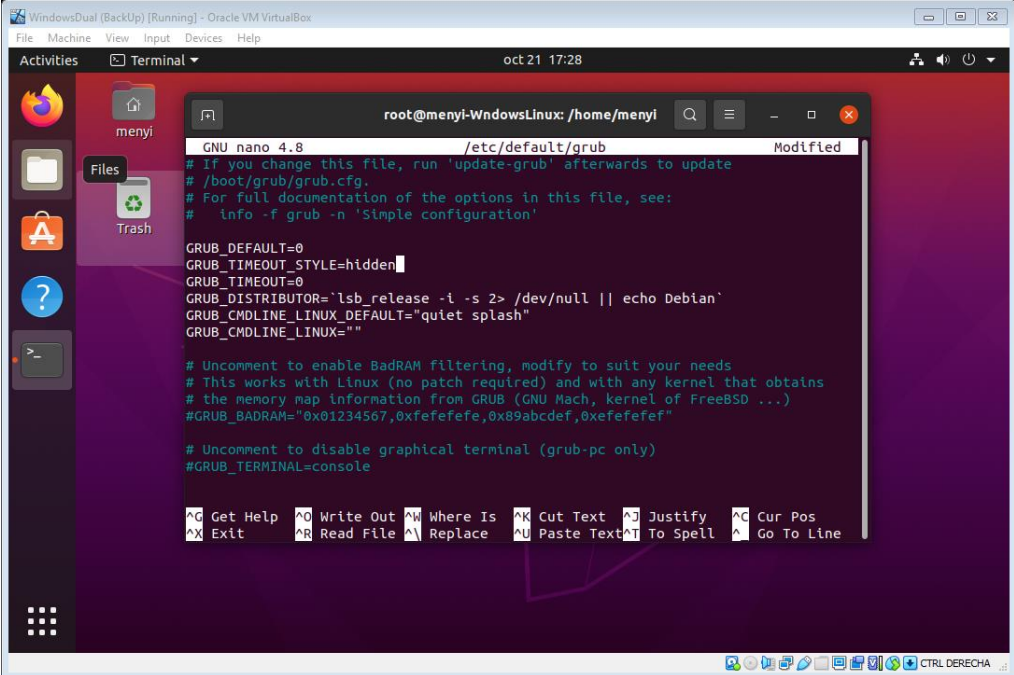
Change boot settings: **GRUB_DEFAULT = 4 and GRUB_TIMEOUT = 15**

```
                                  root@menyi-WndowsLinux: /home/menyi       Q    ≡    _   □   ✕

            [command]
usage: sudo [-AbEHknPS] [-r role] [-t type] [-C num] [-g group] [-h host] [-p
            prompt] [-T timeout] [-u user] [VAR=value] [-i|-s] [<command>]
usage: sudo -e [-AknS] [-r role] [-t type] [-C num] [-g group] [-h host] [-p
            prompt] [-T timeout] [-u user] file ...
menyi@menyi-WndowsLinux:~$ sudo su
[sudo] password for menyi:
Sorry, try again.
[sudo] password for menyi:
root@menyi-WndowsLinux:/home/menyi# nano etc/default/grub
root@menyi-WndowsLinux:/home/menyi# nano /etc/default/grub
root@menyi-WndowsLinux:/home/menyi# update-grub
Sourcing file `/etc/default/grub'
Sourcing file `/etc/default/grub.d/init-select.cfg'
Generating grub configuration file ...
Found linux image: /boot/vmlinuz-5.11.0-38-generic
Found initrd image: /boot/initrd.img-5.11.0-38-generic
Found linux image: /boot/vmlinuz-5.8.0-43-generic
Found initrd image: /boot/initrd.img-5.8.0-43-generic
Found memtest86+ image: /memtest86+.elf
Found memtest86+ image: /memtest86+.bin
Found Windows 7 on /dev/sda1
done
root@menyi-WndowsLinux:/home/menyi# █
```

Update grub file > **update-grub > enter**

Restart Ubuntu to see the changes.
**A) Windows is set default and boot after 15 seconds**
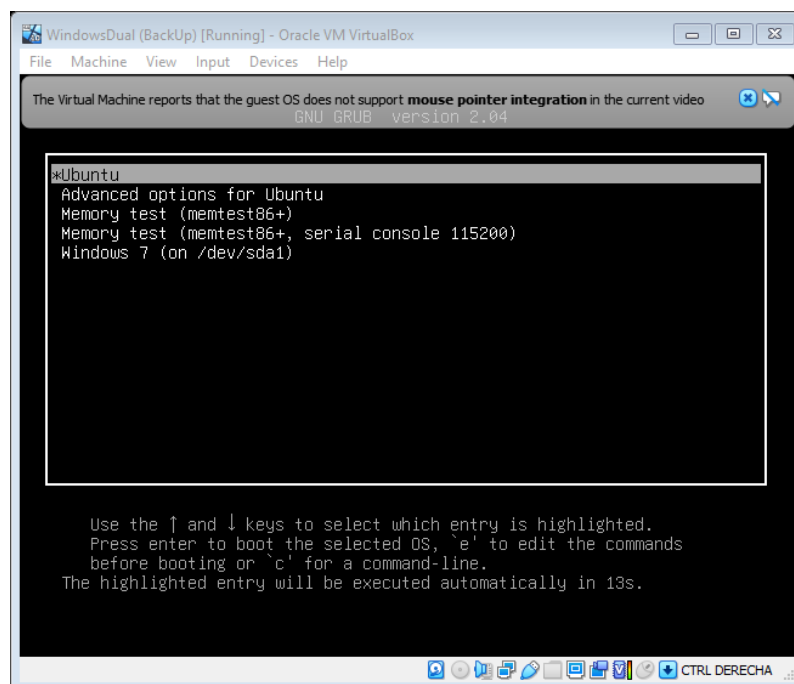**if the user does not select another option in the menu.**



**B) Ubuntu boot first after 10 seconds of countdown** in order to **not display the menu**
we need to edit another file > **nano /etc/grub.d/30_os-prober**

| | |
|---|---|
| ```
GNU nano 4.8              /etc/grub.d/30_os-prober
  minix)
        cat << EOF
menuentry "${LONGNAME} (on ${DEVICE}, Multiboot)" {
EOF
        save_default_entry | sed -e "s/^/\t/"
        prepare_grub_to_access_device ${DEVICE} | sed -e "s/^/\t/"
        cat << EOF
        multiboot /boot/image_latest
}
EOF
      ;;
    *)
      # TRANSLATORS: %s is replaced by OS name.
      gettext_printf "%s is not yet supported by grub-mkconfig.\n" "  ${LONGNAM>
      ;;
  esac
done

#adjust_timeout
``` | ```
6   _
``` |
| Convert last line to **comment (#adjust_timeout)**. | **update-grub** and restart the computer. |



| |
|---|
| **C) Boot Ubuntu directly without the menu > update-grub.** |

**D) Boot Windows without displaying the menu > update-grub.**



**Optional** > Set Ubuntu as default after 15 seconds with menu.