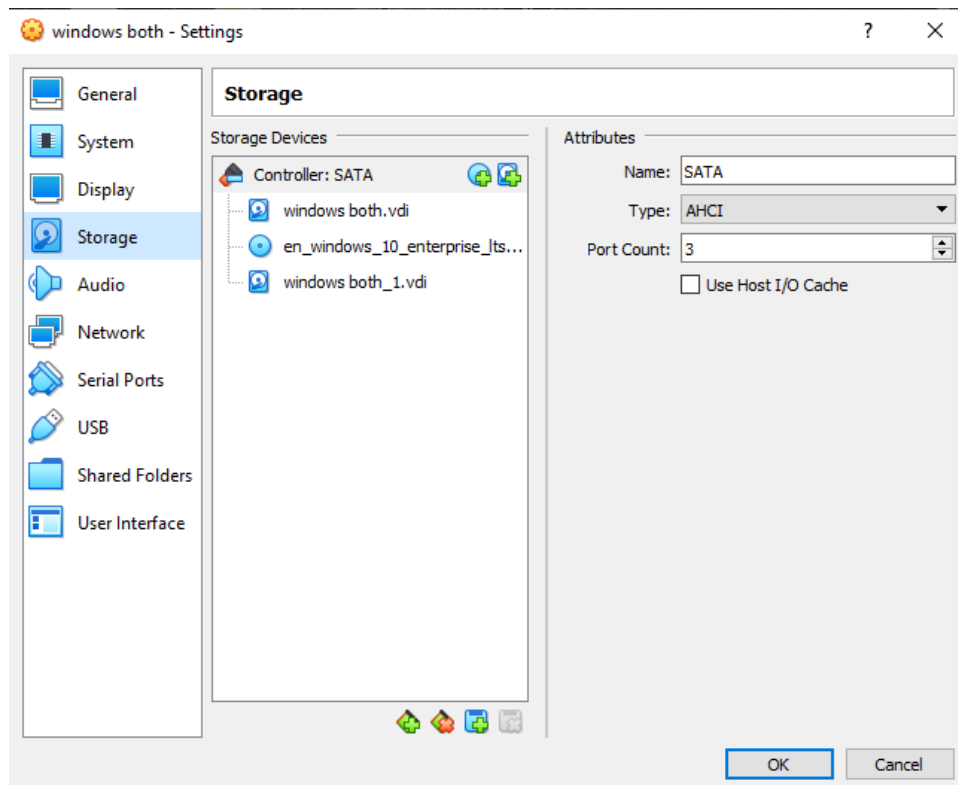


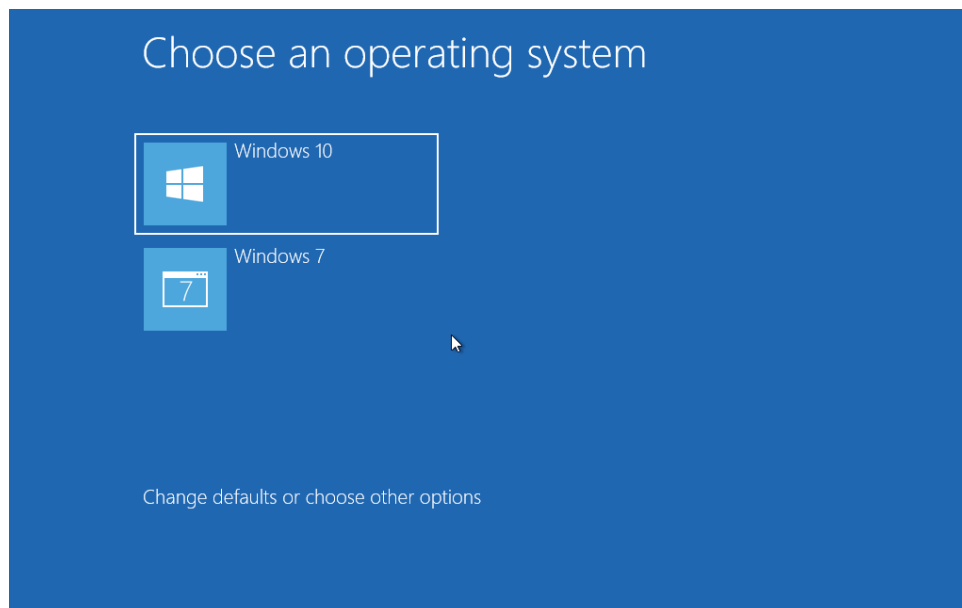
Daniel Gómez

Unit-2

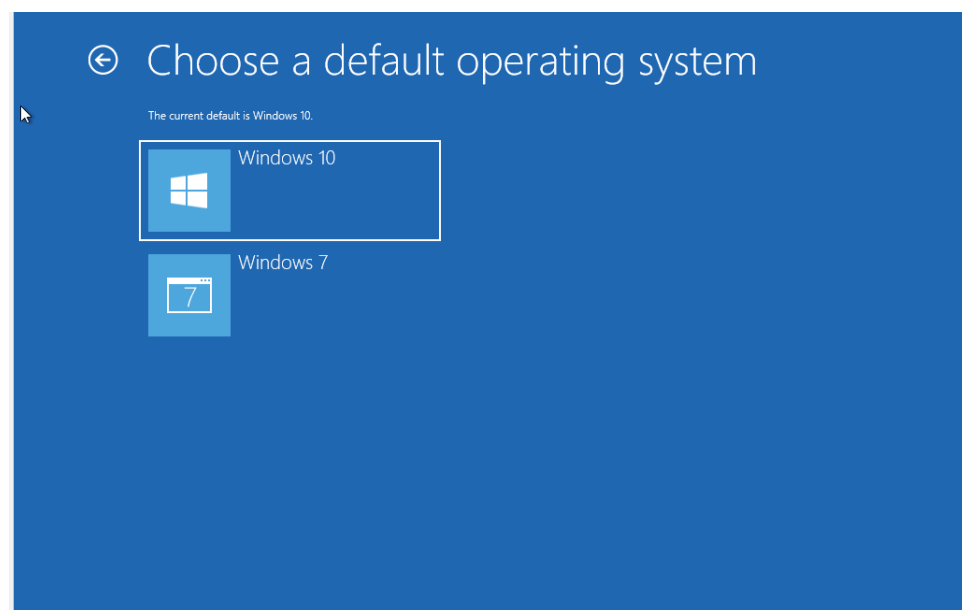
Dual boot exercise



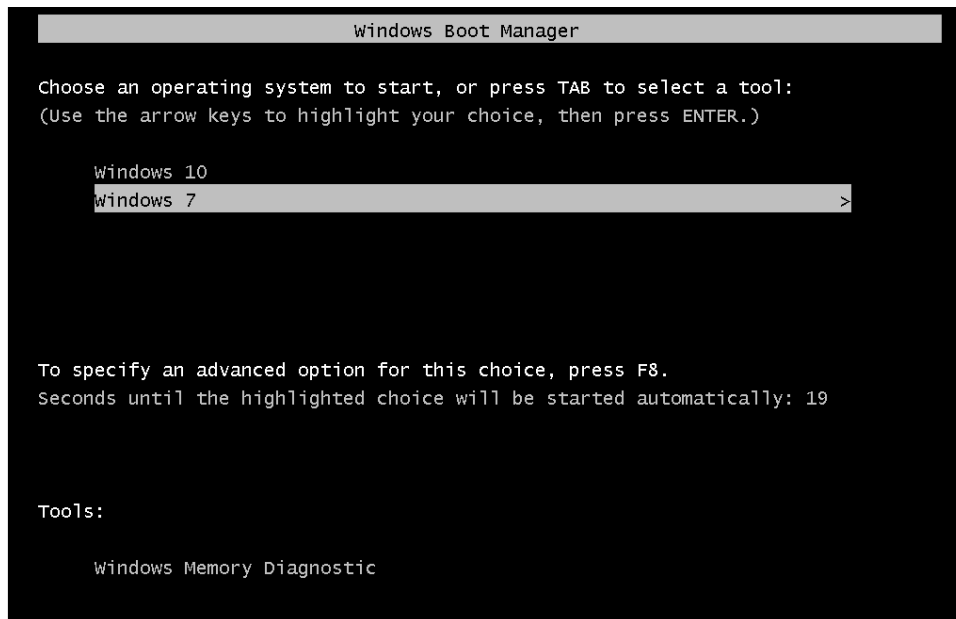
- In order to install windows 10 in our windows 7 vm we have to insert the windows 10 iso file



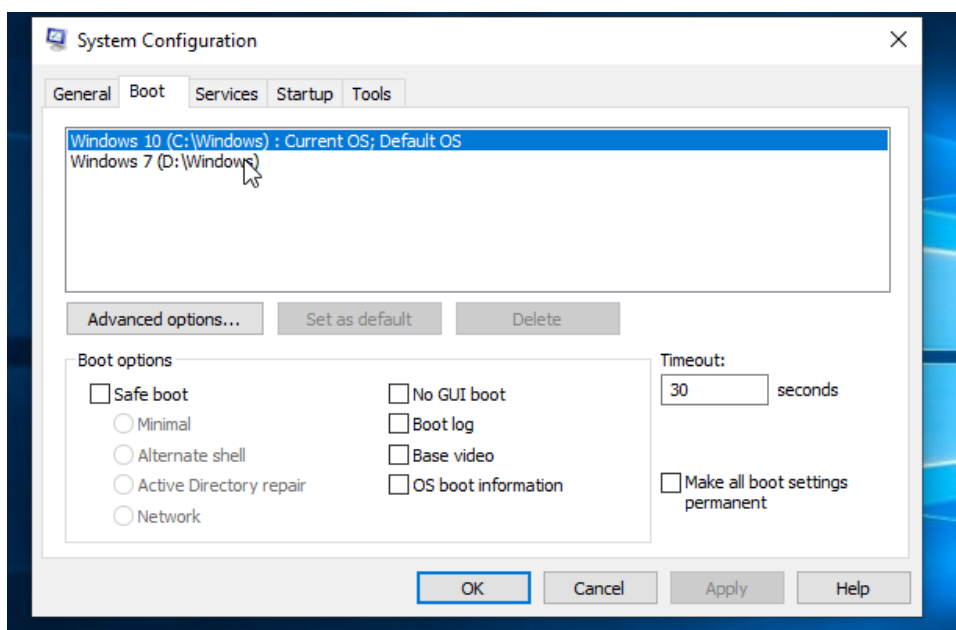
- Once we have the win10 installed we will see the boot loader and windows 10 selected as default



- We can change the default boot loader in the options window

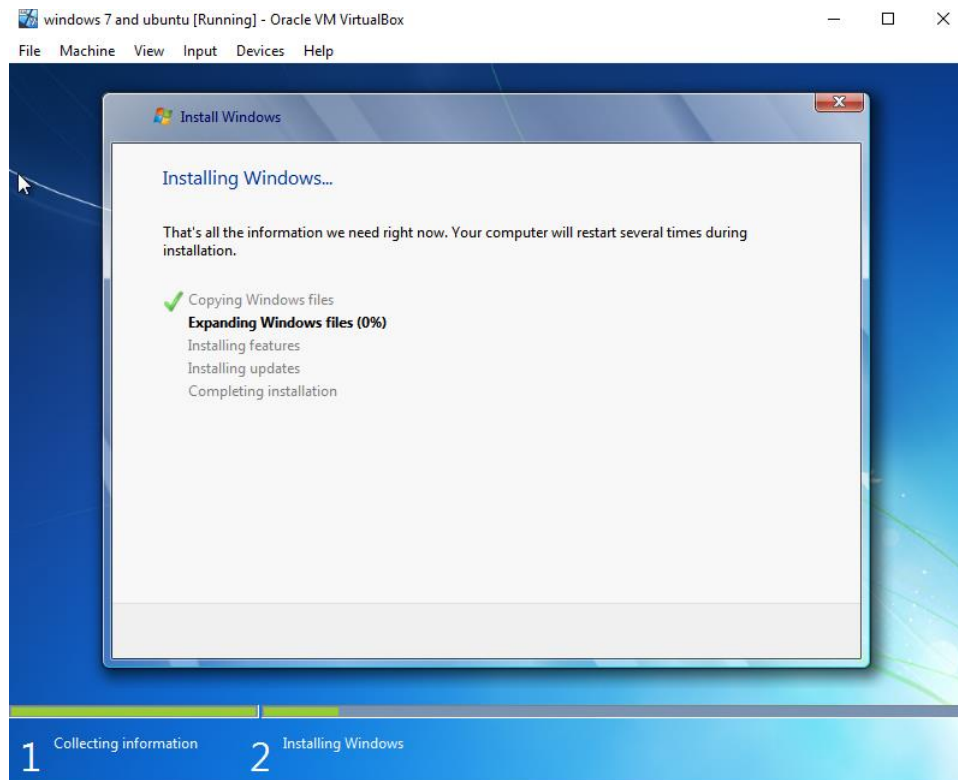


- Now we can see the windows 7 boot loader as default

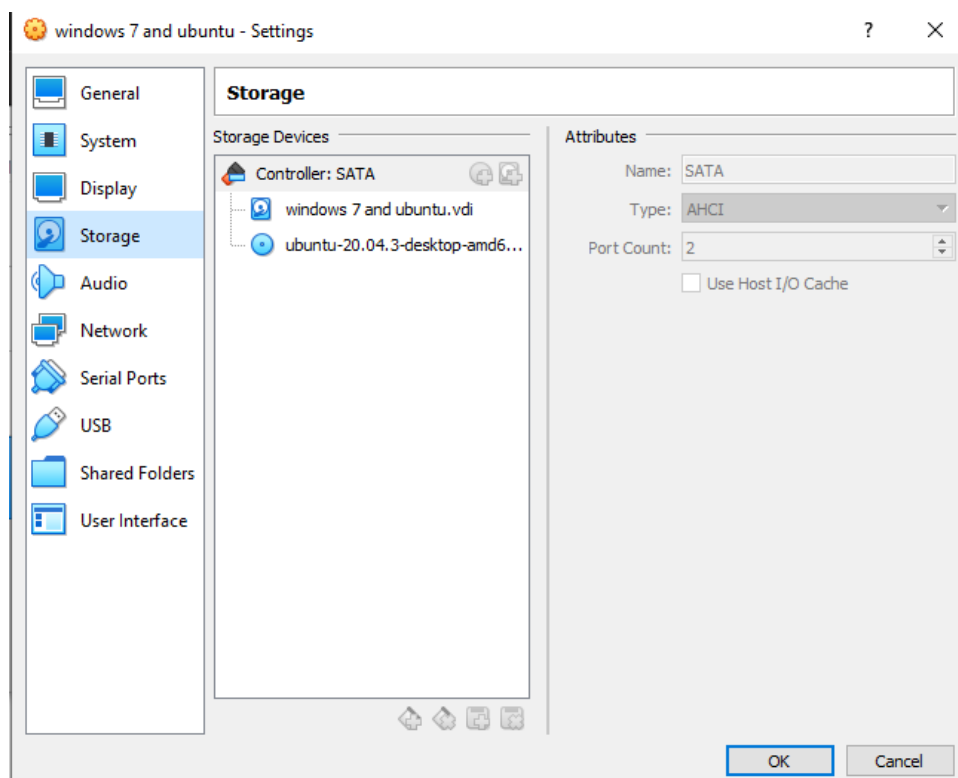


- In order to see the win 10 bootloader again we follow the next steps: On Windows 10, open the start menu, search msconfig, open System Configuration, go to the Boot tab, select Windows 10, and set it as default.

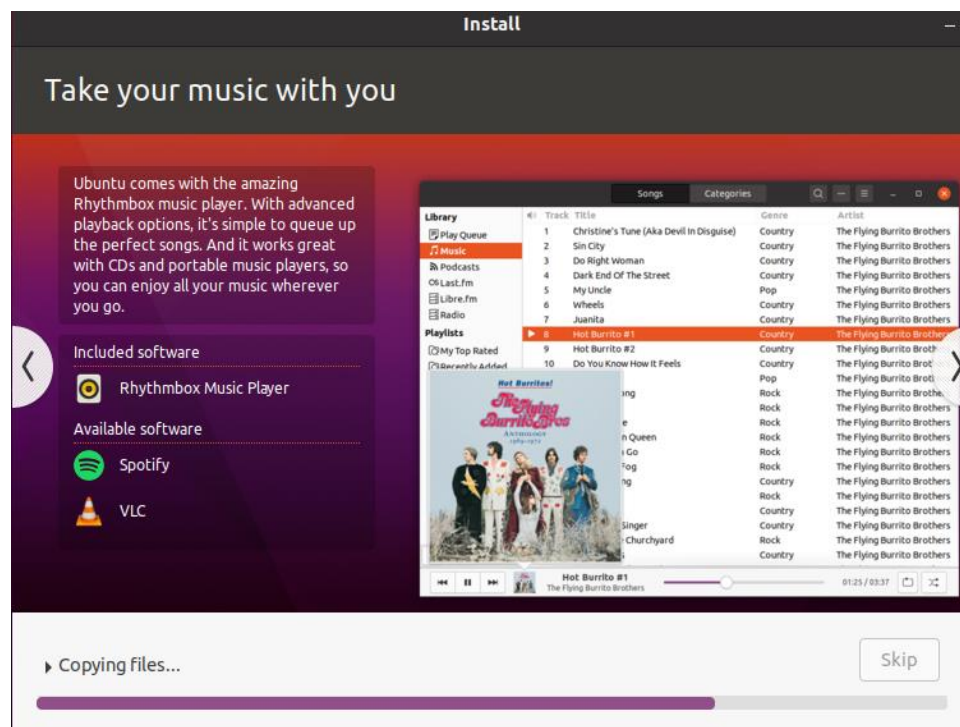
Exercise 2



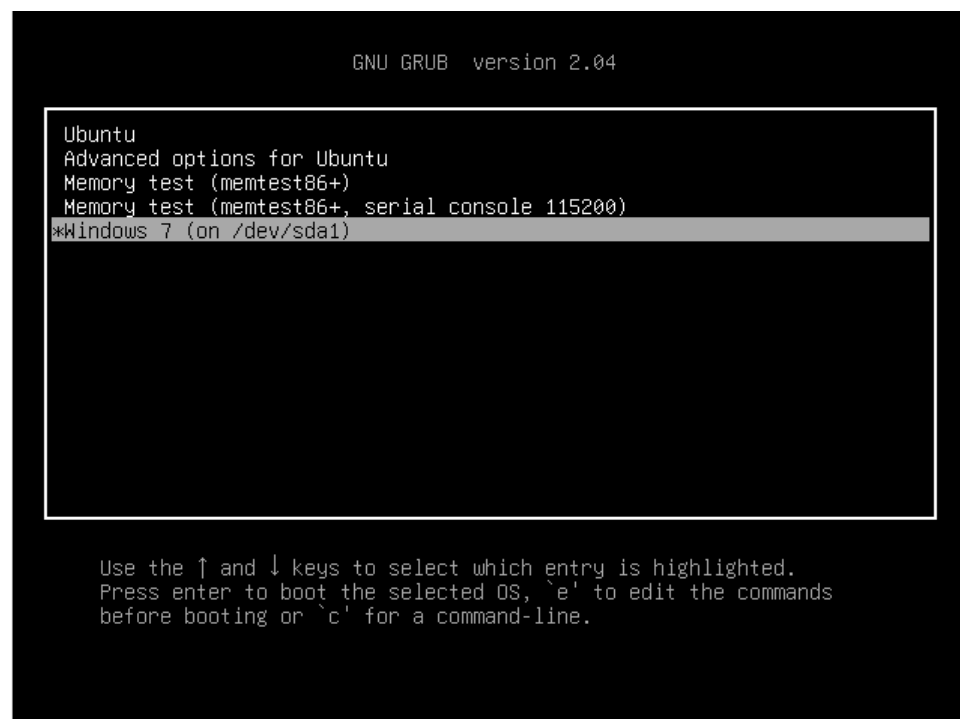
- For the exercise 2 we need to install windows and ubuntu, so first we have to install windows, in this case i did not do any additional partition for windows



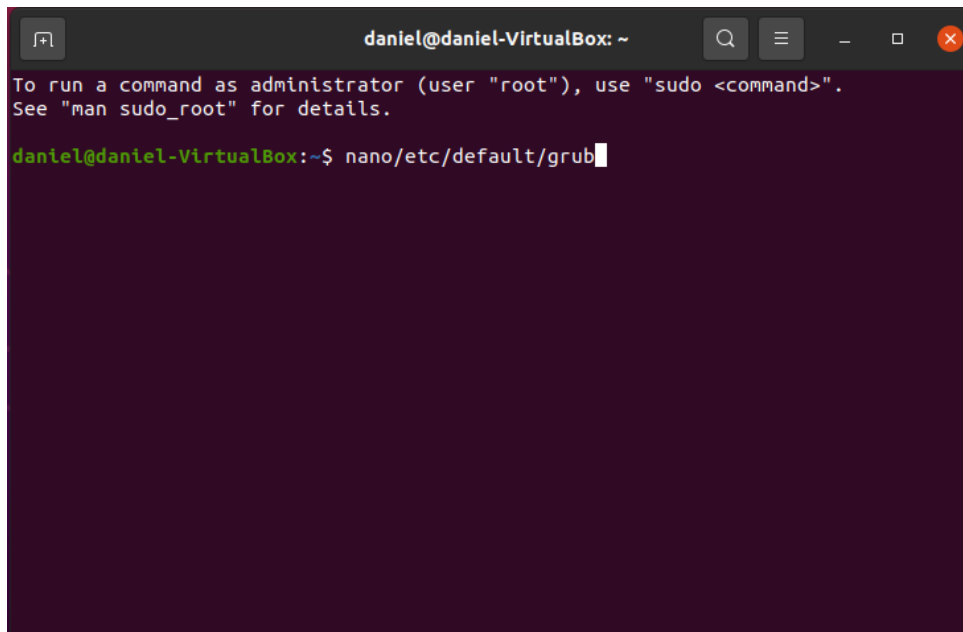
- After installing windows we have to insert the ubuntu iso file in order to install it



- In this case i did not do any partition for Ubuntu



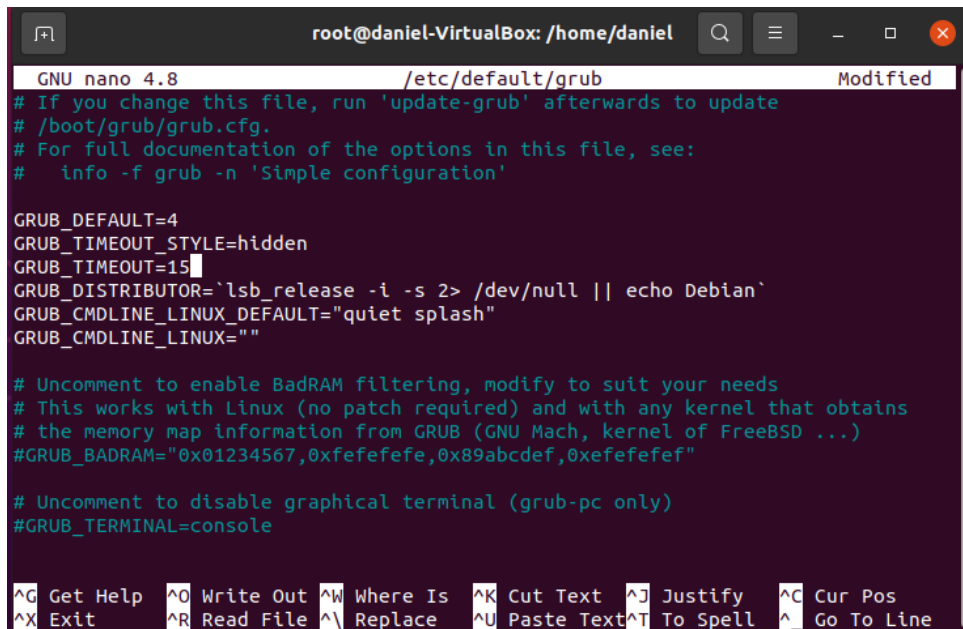
- After installing both operative systems we can see the grub menu when we restart the machine



A terminal window titled "daniel@daniel-VirtualBox: ~" with standard window controls. It displays a message about running commands as administrator and the command `nano/etc/default/grub` being entered at the prompt.

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

- In order to modify grub menu we have to access the command line and run it as administrator, we can do this typing “sudo su” and our password, later we have to type “nano /etc/default/grub” in order to access grub file.



A terminal window titled "root@daniel-VirtualBox: /home/daniel" showing the nano editor editing `/etc/default/grub`. The file content includes GRUB settings like `GRUB_DEFAULT=4` and `GRUB_TIMEOUT=15`. The nano status bar at the bottom shows various keyboard shortcuts.

```
root@daniel-VirtualBox: /home/daniel  
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
```

- We can set window as default changing Grub_Default parameter to 4 also we changed Grub_TIMEOUT parameter to 15.

```
daniel@daniel-VirtualBox:~$ sudo nano /etc/default/grub
[sudo] password for daniel:
daniel@daniel-VirtualBox:~$ sudo update-grub
sudo: update-grub: command not found
daniel@daniel-VirtualBox:~$ sudo 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-5.11.0-37-generic
found initrd image: /boot/initrd.img-5.11.0-37-generic
found linux image: /boot/vmlinuz-5.11.0-27-generic
found initrd image: /boot/initrd.img-5.11.0-27-generic
found memtest86+ image: /boot/memtest86+.elf
found memtest86+ image: /boot/memtest86+.bin
found Windows 7 on /dev/sda1
done
daniel@daniel-VirtualBox:~$
```

- After doing the first step we have to type update-grub in order to save the changes.

```
GNU GRUB  version 2.04

Ubuntu
Advanced options for Ubuntu
Memory test (memtest86+)
Memory test (memtest86+, serial console 115200)
*Windows 7 (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 23s.
```

- Later we will see the grub menu like this.


```
root@daniel-VirtualBox: /home/daniel
GNU nano 4.8 /boot/grub/grub.cfg Modified
if [ x$feature_platform_search_hint = xy ]; then
  search --no-floppy --fs-uuid --set=root --hint-bios=hd0,msdos1 --hint>
else
  search --no-floppy --fs-uuid --set=root 1A80A95F80A941DD
fi
parttool ${root} hidden-
chainloader +1
}
#set timeout_style=menu
#if [ "${timeout}" = 0 ]; then
#  set timeout=10
#fi
### END /etc/grub.d/30_os-prober ###

### BEGIN /etc/grub.d/30_uefi-firmware ###
### END /etc/grub.d/30_uefi-firmware ###

### BEGIN /etc/grub.d/40_custom ###
# This file provides an easy way to add custom menu entries.  Simply type the
# menu entries you want to add after this comment.  Be careful not to change

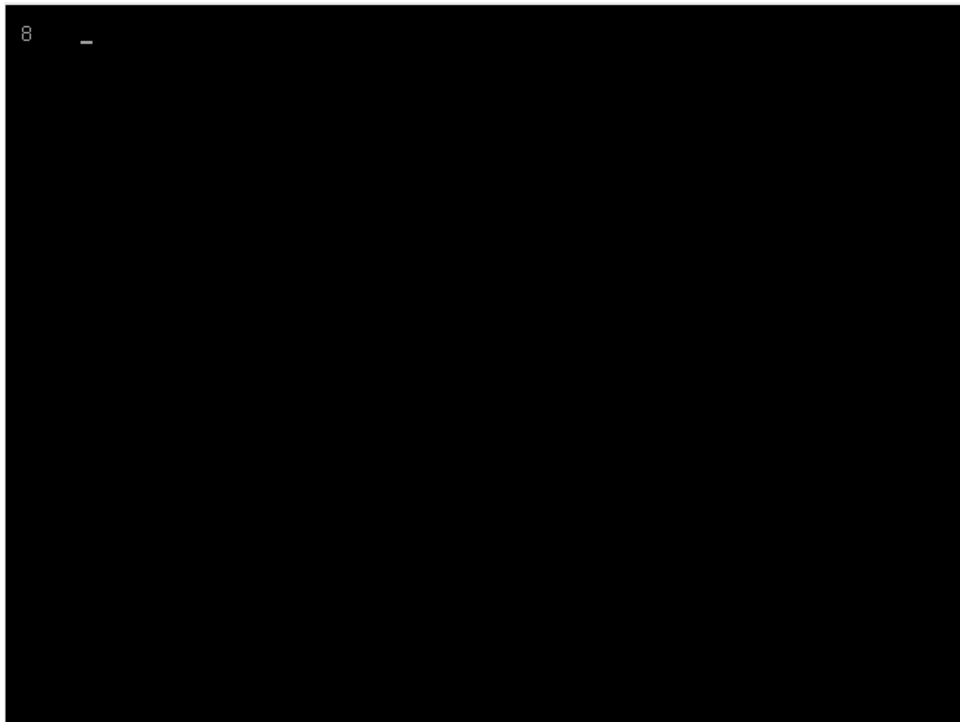
^G Get Help ^O Write Out ^W Where Is ^K Cut Text ^J Justify ^C Cur Pos
^X Exit ^R Read File ^\ Replace ^U Paste Text ^T To Spell ^_ Go To Line
```

B- In order to hide the menu we have to access `/boot/grub/grub.cfg`

And add # in `set timeout_style` lines in order to inactivate it and update grub

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

- Also we can access to `/etc/grub.d/30_os-prober` and add a # in the last file, doing this we will not have to update the `grub.cfg` file all the time



- Now we change the tymeout to 0 and we will see the bootloader like this, only a countdown without menu

```
root@daniel-VirtualBox: /home/daniel
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'

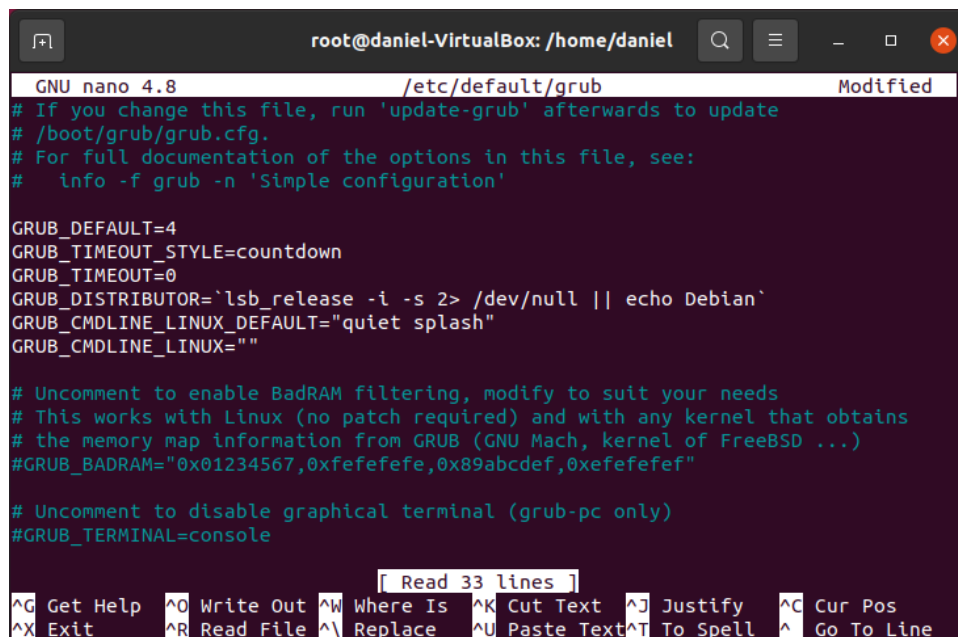
GRUB_DEFAULT=0
GRUB_TIMEOUT_STYLE=countdown
GRUB_TIMEOUT=0
GRUB_DISTRIBUTOR=`lsb_release -i -s 2> /dev/null || echo Debian`
GRUB_CMDLINE_LINUX_DEFAULT="quiet splash"
GRUB_CMDLINE_LINUX=""

# 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="0x01234567,0xfefefefe,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
```

- Now in order to boot ubuntu without displaying the menu we set GRUB_DEFAULT=0 and GRUB_TIMEOUT=0



The screenshot shows a terminal window titled 'root@daniel-VirtualBox: /home/daniel'. Inside, the GNU nano 4.8 editor is open, editing the file '/etc/default/grub'. The file content is as follows:

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

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

[ Read 33 lines ]
^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
```

- Now in order to boot windows without showing the menu we set GRUB_DEFAULT=0
- In order to do not lose the boot loader we have to press escape when the machine is initializing