

Dual Booting Exercises

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:

VirtualBox Graphical User Interface Version 6.1.14 r140239 (Qt5.6.2)
en_windows_10_professional_x64_dvd
ubuntu-20.04.1-desktop-amd64

Initial setup

```
GRUB_DEFAULT=0 (start Ubuntu)
GRUB_TIMEOUT_STYLE=hidden (Panel)
GRUB_TIMEOUT=10 (10 second beafore start)
```

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

list menuentries

```
awk -F' ' '/menuentry / {print $2}' /boot/grub/grub.cfg
Ubuntu
Ubuntu, with Linux 5.8.0-25-generic
Ubuntu, with Linux 5.8.0-25-generic (recovery mode)
Memory test (memtest86+)
Memory test (memtest86+, serial console 115200)
Windows 10 (on /dev/sda1)
```

list seting grub options

```
sudo nano /etc/default/grub
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=""
```

```
sudo update-grub
```

```
rblanco@rblanco-VirtualBox: ~  
rblanco@rblanco-VirtualBox:~$ awk -F\' ' /menuentry / {print $2}' /boot/grub/grub.cfg  
Ubuntu  
Ubuntu, with Linux 5.8.0-25-generic  
Ubuntu, with Linux 5.8.0-25-generic (recovery mode)  
Memory test (memtest86+)  
Memory test (memtest86+ serial console 115200)  
Windows 10 (on /dev/sda1)  
rblanco@rblanco-VirtualBox:~$ sudo nano /etc/default/grub  
rblanco@rblanco-VirtualBox:~$ sudo head -n 10 /etc/default/grub  
# 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"  
rblanco@rblanco-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-5.8.0-25-generic  
Found initrd image: /boot/initrd.img-5.8.0-25-generic  
Found memtest86+ image: /memtest86+.elf  
Found memtest86+ image: /memtest86+.bin  
Found Windows 10 on /dev/sda1  
done  
rblanco@rblanco-VirtualBox:~$
```

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

```
sudo nano /etc/default/grub
```

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

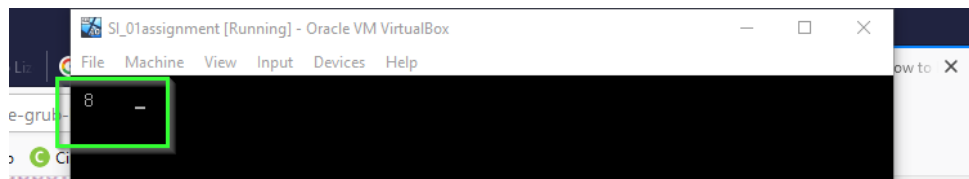
Only by doing It does not work. It's because /etc/grub.d/30_os-prober overrides them by setting timeout to 10 (if it's 0 in /etc/default/grub) and always to display menu.

```
sudo nano /etc/grub.d/30_os-prober
```

```
#adjust_timeout
```

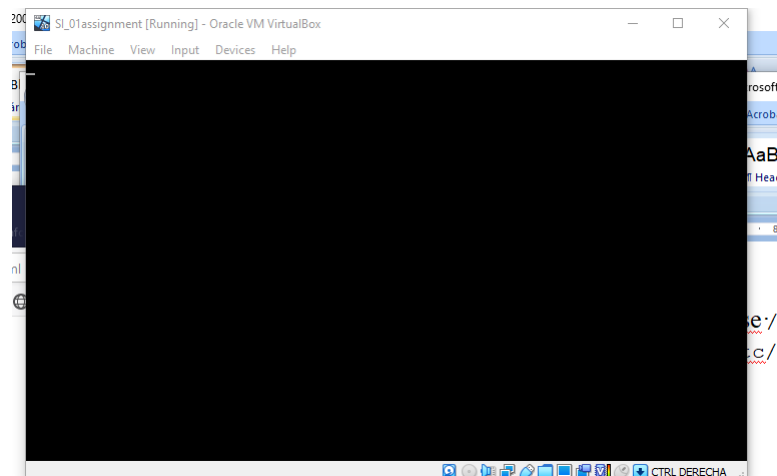
```
sudo update-grub
```

```
rblanco@rblanco-VirtualBox: ~  
rblanco@rblanco-VirtualBox:~$ sudo nano /etc/default/grub  
rblanco@rblanco-VirtualBox:~$ sudo head /etc/default/grub  
# 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=10  
GRUB_DISTRIBUTOR=`lsb_release -i -s 2> /dev/null || echo Debian`  
GRUB_CMDLINE_LINUX_DEFAULT="quiet splash"  
rblanco@rblanco-VirtualBox:~$ sudo tail -n 3 /etc/grub.d/30_os-prober  
done  
  
adjust_timeout  
rblanco@rblanco-VirtualBox:~$ sudo nano /etc/grub.d/30_os-prober  
rblanco@rblanco-VirtualBox:~$ sudo tail -n 2 /etc/grub.d/30_os-prober  
  
#adjust_timeout  
rblanco@rblanco-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-5.8.0-25-generic  
Found initrd image: /boot/initrd.img-5.8.0-25-generic  
Found memtest86+ image: /memtest86+.elf  
Found memtest86+ image: /memtest86+.bin  
Found Windows 10 on /dev/sda1  
done  
rblanco@rblanco-VirtualBox:~$
```



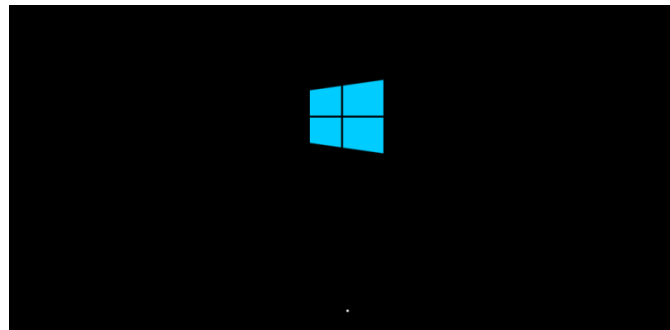
c. Boot Ubuntu without displaying the menu.

```
rblanco@rblanco-VirtualBox: ~  
# 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 -t -s 2> /dev/null || echo Debian`  
GRUB_CMDLINE_LINUX_DEFAULT="quiet splash"  
rblanco@rblanco-VirtualBox:~$ sudo nano /etc/grub.d/30_os-prober  
rblanco@rblanco-VirtualBox:~$ sudo tail -n 1 /etc/grub.d/30_os-prober  
#adjust_timeout  
rblanco@rblanco-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-5.8.0-25-generic  
Found initrd image: /boot/initrd.img-5.8.0-25-generic  
Found mentest86+ image: /mentest86+.elf  
Found mentest86+ image: /mentest86+.bin  
Found Windows 10 on /dev/sda1  
done  
rblanco@rblanco-VirtualBox:~$
```



d. Boot Windows without displaying the menu.

```
rblanco@rblanco-VirtualBox: ~  
rblanco@rblanco-VirtualBox:~$ sudo head /etc/default/grub  
# 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"  
rblanco@rblanco-VirtualBox:~$ sudo tail -n 1 /etc/grub.d/30_os-prober  
#adjust_timeout  
rblanco@rblanco-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-5.8.0-25-generic  
Found initrd image: /boot/initrd.img-5.8.0-25-generic  
Found memtest86+ image: /memtest86+.elf  
Found memtest86+ image: /memtest86+.bin  
Found Windows 10 on /dev/sda1  
done  
rblanco@rblanco-VirtualBox:~$
```



References:

<https://help.ubuntu.com/community/Boot-Repair>
<https://itectec.com/ubuntu/ubuntu-how-to-hide-grub-menu-in-ubuntu-14-04/>
<http://ubuntuhandbook.org/index.php/2020/06/hide-grub-boot-menu-ubuntu-20-04-lts/>
https://www.gnu.org/software/grub/manual/grub/html_node/Simple-configuration.html