



UNIVERSIDAD NACIONAL AUTÓNOMA DE MÉXICO

FACULTAD DE CIENCIAS

### **Practica 03**

**López Bautista José Luis** PROFESOR

**Yeudiel Hernández Torres**

AYUDANTES

**Raúl Ríos Ciriaco**  
**Virgilio Castro Rendón**

ASIGNATURA

**Administración de Sistemas Unix/Linux**

4 de diciembre de 2024

# 1. Desarrollo

Primero se enciende la máquina, al momento de acceder al menú de GNU Grub presionamos la letra e, después de eso se agrega `init=/bin/sh`.

```
GNU GRUB  version 2.06-13+deb12u1

set root='hd0,msdos1'
if [ x$feature_platform_search_hint = xy ]; then
  search --no-floppy --fs-uuid --set=root --hint-bios=hd0,msdos1\
--hint-efi=hd0,msdos1 --hint-baremetal=ahci0,msdos1  247f8a7c-a0ce-4e3e\
-9ddb-941314bc09e8
else
  search --no-floppy --fs-uuid --set=root 247f8a7c-a0ce-4e3e-9dd\
b-941314bc09e8
fi
echo          'Loading Linux 6.1.0-27-amd64 ...'
linux         /boot/vmlinuz-6.1.0-27-amd64 root=UUID=247f8a7c-a0c\
e-4e3e-9ddb-941314bc09e8 ro  init=/bin/sh quiet_
echo          'Loading initial ramdisk ...'
initrd        /boot/initrd.img-6.1.0-27-amd64

Minimum Emacs-like screen editing is supported. TAB lists
completions. Press Ctrl-x or F10 to boot, Ctrl-c or F2 for a
command-line or ESC to discard edits and return to the GRUB
menu.
```

Luego presionamos `ctrl+x`

```
Debian 12.x 64-bit x
[ 6.083154] piix4_smbus 0000:00:07.3: SMBus Host Controller not enabled!
/dev/sda1: recovering journal
/dev/sda1: clean, 54777/655360 files, 637113/2611968 blocks
/bin/sh: 0: can't access tty; job control turned off
#
```

Se ejecuta el comando de `mount`

```
# mount
sysfs on /sys type sysfs (rw,nosuid,nodev,noexec,relati
proc on /proc type proc (rw,nosuid,nodev,noexec,relati
udev on /dev type devtmpfs (rw,nosuid,relatime,size=966
e=755,inode64)
devpts on /dev/pts type devpts (rw,nosuid,noexec,relati
e=000)
tmpfs on /run type tmpfs (rw,nosuid,nodev,noexec,relati
```

Después ejecutamos el comando `mount -o remount,rw /`, y después de este volvemos a ejecutar `mount`

```
# mount -o remount,rw /
# mount
sysfs on /sys type sysfs (rw,nosuid,nodev,noexec,relatime)
proc on /proc type proc (rw,nosuid,nodev,noexec,relatime)
udev on /dev type devtmpfs (rw,nosuid,relatime,size=966304k,nr_inodes=241576,mode=755,inode64)
devpts on /dev/pts type devpts (rw,nosuid,noexec,relatime,gid=5,mode=620,ptmxmode=000)
tmpfs on /run type tmpfs (rw,nosuid,nodev,noexec,relatime,size=197880k,mode=755,inode64)
/dev/sda1 on / type ext4 (rw,relatime,errors=remount-ro)
#
```

Con el comando `passwd` establecemos una contraseña

```
# passwd
New password:
Retype new password:
passwd: password updated successfully
```

Luego reiniciamos la maquina y una vez que finalizo esto modificamos el archivo `/etc/grub.d/10_linux`, se agrega en la linea 132 `--unrestricted` antes de la etiqueta `$CLASS`

```
jose@debian: ~
quoted="$(echo "$GRUB_ACTUAL_DEFAULT" | grub_quote)"
title_correction_code="${title_correction_code}if [ \"x\\$default\" = '$quoted' ]; then d
; fi;"
grub_warn "$(gettext_printf "Please don't use old title '\\$s' for GRUB_DEFAULT, use '\\$s
later)" "$GRUB_ACTUAL_DEFAULT" "$replacement_title" "gnulinux-advanced-$boot_device_id>gnulinux-$
fi
echo "menuentry '$(echo "$title" | grub_quote)' ${CLASS} \\$menuentry_id_option 'gnulinux-$ve
u_indentation/"
else
echo "menuentry '$(echo "$os" | grub_quote)' --unrestricted| ${CLASS} \\$menuentry_id_option '
bmenu_indentation/"
fi
if [ "$quick_boot" = 1 ]; then
echo "    recordfail" | sed "s/^/$submenu_indentation/"
fi
if [ x$type != xrecovery ] ; then
```

Se guardan los cambios y se actualiza el grub

```

root@debian:~# update-grub
Generating grub configuration file ...
Found linux image: /boot/vmlinuz-6.1.0-27-amd64
Found initrd image: /boot/initrd.img-6.1.0-27-amd64
Found linux image: /boot/vmlinuz-6.1.0-22-amd64
Found initrd image: /boot/initrd.img-6.1.0-22-amd64
Warning: os-prober will not be executed to detect other bootable partitions
Systems on them will not be added to the GRUB boot configuration.
Check GRUB_DISABLE_OS_PROBER documentation entry.
done

```

Ahora con el comando `grub-mkpasswd-pbkdf2` establecemos una contraseña cifrada

```

root@debian:~# grub-mkpasswd-pbkdf2
Enter password:
Reenter password:
PBKDF2 hash of your password is grub.pbkdf2.sha512.10000.7A5A0BA90B15EE9D53D70578617C24014D3CD595FAF3ED97BABD871DE6144E7C8C8986A2677ED2777D838D0FCB6
BC763572649211F792574C49482E17C8C529D.DD184031C98D7FAA5DD5D95CFFA11FC551508E20737FCD0125E66BCBD04D1D390E3875807B811237DFC8C77B2A2965457B421D6D58766
C8D6F857E6374A46C5

```

La cual se agrega al archivo `/etc/grub.d/40_custom`

```

jose@debian: ~
#!/bin/sh
exec tail -n +3 $0
# 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
# the 'exec tail' line above.
set superusers="root"
password_pbkdf2 root grub.pbkdf2.sha512.10000.7A5A0BA90B15EE9D53D70578617C24014D3CD595FAF3ED97BABD871DE6144E7C8C8986A2677ED2777D838D0FCB6BC763572649
211F792574C49482E17C8C529D.DD184031C98D7FAA5DD5D95CFFA11FC551508E20737FCD0125E66BCBD04D1D390E3875807B811237DFC8C77B2A2965457B421D6D58766C8D6F857E63
74A46C5

```

Se vuelve a actualizar el grub y reiniciamos la máquina, de forma que al momento de querer acceder al menú de edición de las entradas del GRUB, nos solicitara el superuser y la contraseña.