

Primera parte del taller

Está en el documento llamado history1.

Segunda parte del taller

1. Función de 5 directorios del sistema operativo Linux:

HOME: es el directorio de los usuarios estándar, y por lo tanto, el **destinado a almacenar todos los archivos del usuario**, como documentos, fotos, vídeos, música, plantillas, etc. También incluye archivos temporales de aplicaciones ejecutadas en modo usuario, que sirven para guardar las configuraciones de programas, etc.

Home/root: incluye todos los archivos de configuración.

MEDIA: Representa el punto de montaje de todos los volúmenes lógicos que se montan temporalmente, ya sean unidades externas USB, otras particiones de disco, etc.

/mnt (montajes): Es un directorio que se suele usar para montajes temporales de unidades.

PROC: este directorio contiene información de los procesos y aplicaciones que se están ejecutando en un momento determinado en el sistema

Cmdline: Este archivo muestra los parámetros pasados al kernel en el momento en que se inicia

SRV : Sirve para almacenar archivos y directorios relativos a servidores que puedas tener instalados dentro de tu sistema, ya sea un servidor web *www*, un servidor FTP, CVS, etc.

TMP: Como ya da a entender su nombre, sirve para almacenar archivos temporales de todo tipo, ya sea de elementos del sistema, o también de diferentes aplicaciones a nivel de usuario como puedan ser Firefox o Chrome/Chromium

Yum.log: es la principal herramienta para conseguir, instalar, eliminar, consulta y gestión de paquetes de software

2. Utilidad del comando printenv en Linux

Muestra el valor de todas las variables de ambiente; si se indica un nombre de variable, muestra el valor de esa variable.

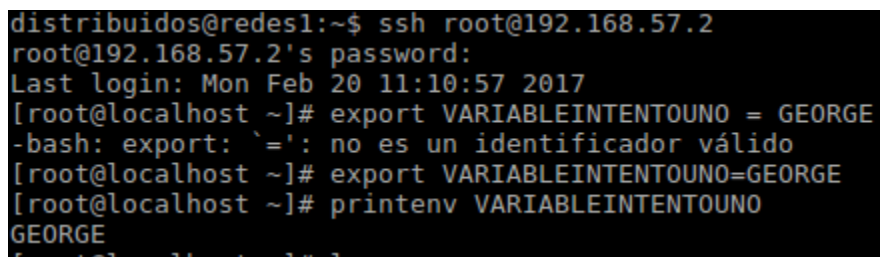
A continuación se muestran ejemplos del comando printenv:

```
# printenv
TERM=xterm
SHELL=/bin/bash
XDG_SESSION_COOKIE=40814f3cfb06547555e9bca9533f7c03-1397104728.17863-1713841376
SSH_CLIENT=192.168.1.3 15302 22
SSH_TTY=/dev/pts/0
USER=root
MAIL=/var/mail/root
PATH=/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin
PWD=/root/ejemplos
LANG=es_AR.UTF-8
SHLVL=1
HOME=/root
LANGUAGE=es_AR:es
LOGNAME=root
SSH_CONNECTION=192.168.1.3 15302 192.168.1.6 22
DISPLAY=localhost:10.0
```

3. Las **variables de entorno en Linux** son variables que contienen valores que pueden ser utilizadas por diferentes programas.

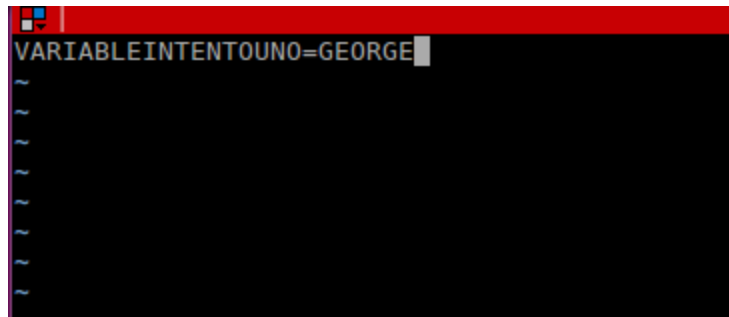
Como hacer una variable de entorno permanente:

Primero crear la variable



```
distribuidos@redes1:~$ ssh root@192.168.57.2
root@192.168.57.2's password:
Last login: Mon Feb 20 11:10:57 2017
[root@localhost ~]# export VARIABLEINTENTOUNO = GEORGE
-bash: export: `=': no es un identificador válido
[root@localhost ~]# export VARIABLEINTENTOUNO=GEORGE
[root@localhost ~]# printenv VARIABLEINTENTOUNO
GEORGE
```

segundo editar el environment



Por ultimo prueba de ejecución

```
[root@localhost etc]# reboot
Connection to 192.168.57.2 closed by remote host.
Connection to 192.168.57.2 closed.
distribuidos@redes1:~$ ssh root@192.168.57.2
ssh: connect to host 192.168.57.2 port 22: Connection refused
distribuidos@redes1:~$ ^C
distribuidos@redes1:~$ ssh root@192.168.57.2
root@192.168.57.2's password:
Last login: Mon Feb 20 11:18:53 2017
[root@localhost ~]# printenv
XDG_SESSION_ID=2
HOSTNAME=localhost.localdomain
SELINUX_ROLE_REQUESTED=
TERM=xterm
SHELL=/bin/bash
HISTSIZE=1000
SSH_CLIENT=192.168.57.1 42450 22
SELINUX_USE_CURRENT_RANGE=
SSH_TTY=/dev/pts/0
USER=root
LS_COLORS=rs=0:di=01;34:ln=01;36:mh=00:pi=40;33:so=01;35:do=01;35:bd=40;33;01:cd=40;33;0
az=01;31:*.lha=01;31:*.lz4=01;31:*.lzh=01;31:*.lzma=01;31:*.tlz=01;31:*.txz=01;31:*.tzo
tbz=01;31:*.tbz2=01;31:*.tz=01;31:*.deb=01;31:*.rpm=01;31:*.jar=01;31:*.war=01;31:*.ear
=01;35:*.bmp=01;35:*.pbm=01;35:*.pgm=01;35:*.ppm=01;35:*.tga=01;35:*.xbm=01;35:*.xpm=01
=01;35:*.webm=01;35:*.ogm=01;35:*.mp4=01;35:*.m4v=01;35:*.mp4v=01;35:*.vob=01;35:*.qt=01
35:*.xwd=01;35:*.yuv=01;35:*.cgm=01;35:*.emf=01;35:*.axv=01;35:*.anx=01;35:*.ogv=01;35:
*.axa=01;36:*.oga=01;36:*.spx=01;36:*.xspf=01;36:
VARIABLEINTENTOUNO=GEORGE
MAIL=/var/spool/mail/root
PATH=/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/root/bin
PWD=/root
LANG=es_CO.UTF-8
SELINUX_LEVEL_REQUESTED=
HISTCONTROL=ignoredups
SHLVL=1
HOME=/root
LOGNAME=root
SSH_CONNECTION=192.168.57.1 42450 192.168.57.2 22
LESSOPEN=||/usr/bin/lesspipe.sh %s
XDG_RUNTIME_DIR=/run/user/0
_/usr/bin/printenv
[root@localhost ~]# printenv VARIABLEINTENTOUNO
GEORGE
[root@localhost ~]#
```

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Parte D: como instalar programas en Linux a través de sus fuentes.

Configure:

```
[root@localhost ~]# cd Python-3.4.4
[root@localhost Python-3.4.4]# ./configure
checking build system type... x86_64-unknown-linux-gnu
checking host system type... x86_64-unknown-linux-gnu
checking for --enable-universalsdk... no
checking for --with-universal-archs... no
checking MACHDEP... linux
checking for --without-gcc... no
checking for gcc... gcc
checking whether the C compiler works... yes
checking for C compiler default output file name... a.out
checking for suffix of executables...
checking whether we are cross compiling... no
checking for suffix of object files... o
checking whether we are using the GNU C compiler... yes
checking whether gcc accepts -g... yes
checking for gcc option to accept ISO C89... none needed
checking for --with-cxx-main=<compiler>... no
checking for g++... no
configure:

    By default, distutils will build C++ extension modules with "g++".
    If this is not intended, then set CXX on the configure command line.

checking for -Wl,--no-as-needed... yes
checking how to run the C preprocessor... gcc -E
checking for grep that handles long lines and -e... /usr/bin/grep
checking for egrep... /usr/bin/grep -E
checking for ANSI C header files... yes
checking for sys/types.h... yes
checking for sys/stat.h... yes
checking for stdlib.h... yes
checking for string.h... yes
checking for memory.h... yes
checking for strings.h... yes
checking for inttypes.h... yes
checking for stdint.h... yes
checking for unistd.h... yes
checking minix/config.h usability... no
checking minix/config.h presence... no
checking for minix/config.h... no
checking whether it is safe to define __EXTENSIONS__... yes
checking for --with-suffix...
checking for case-insensitive build directory... no
checking LIBRARY... libpython$(VERSION)$ (ABIFLAGS).a
checking LINKCC... $(PURIFY) $(MAINCC)
checking for GNU ld... yes
checking for inline... inline
checking for --enable-shared... no
```

Make

```
[root@localhost Python-3.4.4]# make
gcc -pthread -c -Wno-unused-result -DNDEBUG -g -fwrapv -O3 -Wall -Wstrict-prototypes -
Werror=declaration-after-statement -I. -IInclude -I./Include -DPy_BUILD_CORE -o Modu
les/python.o ./Modules/python.c
gcc -pthread -c -Wno-unused-result -DNDEBUG -g -fwrapv -O3 -Wall -Wstrict-prototypes -
Werror=declaration-after-statement -I. -IInclude -I./Include -DPy_BUILD_CORE -o Pars
er/acceler.o Parser/acceler.c
gcc -pthread -c -Wno-unused-result -DNDEBUG -g -fwrapv -O3 -Wall -Wstrict-prototypes -
Werror=declaration-after-statement -I. -IInclude -I./Include -DPy_BUILD_CORE -o Pars
er/grammar1.o Parser/grammar1.c
gcc -pthread -c -Wno-unused-result -DNDEBUG -g -fwrapv -O3 -Wall -Wstrict-prototypes -
Werror=declaration-after-statement -I. -IInclude -I./Include -DPy_BUILD_CORE -o Pars
er/listnode.o Parser/listnode.c
gcc -pthread -c -Wno-unused-result -DNDEBUG -g -fwrapv -O3 -Wall -Wstrict-prototypes -
Werror=declaration-after-statement -I. -IInclude -I./Include -DPy_BUILD_CORE -o Pars
er/node.o Parser/node.c
gcc -pthread -c -Wno-unused-result -DNDEBUG -g -fwrapv -O3 -Wall -Wstrict-prototypes -
Werror=declaration-after-statement -I. -IInclude -I./Include -DPy_BUILD_CORE -o Pars
er/parser.o Parser/parser.c
gcc -pthread -c -Wno-unused-result -DNDEBUG -g -fwrapv -O3 -Wall -Wstrict-prototypes -
Werror=declaration-after-statement -I. -IInclude -I./Include -DPy_BUILD_CORE -o Pars
er/bitset.o Parser/bitset.c
gcc -pthread -c -Wno-unused-result -DNDEBUG -g -fwrapv -O3 -Wall -Wstrict-prototypes -
Werror=declaration-after-statement -I. -IInclude -I./Include -DPy_BUILD_CORE -o Pars
er/metagrammar.o Parser/metagrammar.c
gcc -pthread -c -Wno-unused-result -DNDEBUG -g -fwrapv -O3 -Wall -Wstrict-prototypes -
Werror=declaration-after-statement -I. -IInclude -I./Include -DPy_BUILD_CORE -o Pars
er/firstsets.o Parser/firstsets.c
gcc -pthread -c -Wno-unused-result -DNDEBUG -g -fwrapv -O3 -Wall -Wstrict-prototypes -
Werror=declaration-after-statement -I. -IInclude -I./Include -DPy_BUILD_CORE -o Pars
er/grammar.o Parser/grammar.c
gcc -pthread -c -Wno-unused-result -DNDEBUG -g -fwrapv -O3 -Wall -Wstrict-prototypes -
Werror=declaration-after-statement -I. -IInclude -I./Include -DPy_BUILD_CORE -o Pars
er/pgen.o Parser/pgen.c
gcc -pthread -c -Wno-unused-result -DNDEBUG -g -fwrapv -O3 -Wall -Wstrict-prototypes -
Werror=declaration-after-statement -I. -IInclude -I./Include -DPy_BUILD_CORE -o Pars
er/myreadline.o Parser/myreadline.c
gcc -pthread -c -Wno-unused-result -DNDEBUG -g -fwrapv -O3 -Wall -Wstrict-prototypes -
Werror=declaration-after-statement -I. -IInclude -I./Include -DPy_BUILD_CORE -o Pars
er/parsetok.o Parser/parsetok.c
gcc -pthread -c -Wno-unused-result -DNDEBUG -g -fwrapv -O3 -Wall -Wstrict-prototypes -
Werror=declaration-after-statement -I. -IInclude -I./Include -DPy_BUILD_CORE -o Pars
er/tokenizer.o Parser/tokenizer.c
gcc -pthread -c -Wno-unused-result -DNDEBUG -g -fwrapv -O3 -Wall -Wstrict-prototypes -
Werror=declaration-after-statement -I. -IInclude -I./Include -DPy_BUILD_CORE -o Obje
cts/abstract.o Objects/abstract.c
gcc -pthread -c -Wno-unused-result -DNDEBUG -g -fwrapv -O3 -Wall -Wstrict-prototypes -
Werror=declaration-after-statement -I. -IInclude -I./Include -DPy_BUILD_CORE -o Obje
cts/accu.o Objects/accu.c
gcc -pthread -c -Wno-unused-result -DNDEBUG -g -fwrapv -O3 -Wall -Wstrict-prototypes -
```

MakeInstall

```
Listing '/usr/local/lib/python3.4/test/tracedmodules'...
Compiling '/usr/local/lib/python3.4/test/tracedmodules/__init__.py'...
Compiling '/usr/local/lib/python3.4/test/tracedmodules/testmod.py'...
Compiling '/usr/local/lib/python3.4/test/warning_tests.py'...
Compiling '/usr/local/lib/python3.4/test/win_console_handler.py'...
Listing '/usr/local/lib/python3.4/test/xmltestdata'...
Compiling '/usr/local/lib/python3.4/test/xmltests.py'...
Compiling '/usr/local/lib/python3.4/textwrap.py'...
Compiling '/usr/local/lib/python3.4/this.py'...
Compiling '/usr/local/lib/python3.4/threading.py'...
Compiling '/usr/local/lib/python3.4/timeit.py'...
Listing '/usr/local/lib/python3.4/tkinter'...
Compiling '/usr/local/lib/python3.4/tkinter/__init__.py'...
Compiling '/usr/local/lib/python3.4/tkinter/__main__.py'...
Compiling '/usr/local/lib/python3.4/tkinter/_fix.py'...
Compiling '/usr/local/lib/python3.4/tkinter/colorchooser.py'...
Compiling '/usr/local/lib/python3.4/tkinter/commondialog.py'...
Compiling '/usr/local/lib/python3.4/tkinter/constants.py'...
Compiling '/usr/local/lib/python3.4/tkinter/dialog.py'...
Compiling '/usr/local/lib/python3.4/tkinter/dnd.py'...
Compiling '/usr/local/lib/python3.4/tkinter/filedialog.py'...
Compiling '/usr/local/lib/python3.4/tkinter/font.py'...
Compiling '/usr/local/lib/python3.4/tkinter/messagebox.py'...
Compiling '/usr/local/lib/python3.4/tkinter/scrolledtext.py'...
Compiling '/usr/local/lib/python3.4/tkinter/simplesdialog.py'...
Listing '/usr/local/lib/python3.4/tkinter/test'...
Compiling '/usr/local/lib/python3.4/tkinter/test/__init__.py'...
Compiling '/usr/local/lib/python3.4/tkinter/test/runtktests.py'...
Compiling '/usr/local/lib/python3.4/tkinter/test/support.py'...
Listing '/usr/local/lib/python3.4/tkinter/test/test_tkinter'...
Compiling '/usr/local/lib/python3.4/tkinter/test/test_tkinter/__init__.py'...
Compiling '/usr/local/lib/python3.4/tkinter/test/test_tkinter/test_font.py'...
Compiling '/usr/local/lib/python3.4/tkinter/test/test_tkinter/test_geometry_managers.py'...
Compiling '/usr/local/lib/python3.4/tkinter/test/test_tkinter/test_images.py'...
Compiling '/usr/local/lib/python3.4/tkinter/test/test_tkinter/test_loadtk.py'...
Compiling '/usr/local/lib/python3.4/tkinter/test/test_tkinter/test_misc.py'...
Compiling '/usr/local/lib/python3.4/tkinter/test/test_tkinter/test_text.py'...
Compiling '/usr/local/lib/python3.4/tkinter/test/test_tkinter/test_variables.py'...
Compiling '/usr/local/lib/python3.4/tkinter/test/test_tkinter/test_widgets.py'...
Listing '/usr/local/lib/python3.4/tkinter/test/test_ttk'...
Compiling '/usr/local/lib/python3.4/tkinter/test/test_ttk/__init__.py'...
Compiling '/usr/local/lib/python3.4/tkinter/test/test_ttk/test_extensions.py'...
Compiling '/usr/local/lib/python3.4/tkinter/test/test_ttk/test_functions.py'...
Compiling '/usr/local/lib/python3.4/tkinter/test/test_ttk/test_style.py'...
Compiling '/usr/local/lib/python3.4/tkinter/test/test_ttk/test_widgets.py'...
Compiling '/usr/local/lib/python3.4/tkinter/test/widget_tests.py'...
Compiling '/usr/local/lib/python3.4/tkinter/tix.py'...
Compiling '/usr/local/lib/python3.4/tkinter/ttk.py'...
Compiling '/usr/local/lib/python3.4/token.py'...
Compiling '/usr/local/lib/python3.4/tokenize.py'...
Compiling '/usr/local/lib/python3.4/trace.py'...
Compiling '/usr/local/lib/python3.4/traceback.py'...
```

Prueba de ejecución

```
[root@localhost Python-3.4.4]# python3.4
Python 3.4.4 (default, Feb 22 2017, 07:29:07)
[GCC 4.8.5 20150623 (Red Hat 4.8.5-11)] on linux
Type "help", "copyright", "credits" or "license" for more information.
>>> PRUEBA DE EJECUCION
```

5.

Bibliografía

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