

Week Report 3

Summary of Presentation: The History of Bash linux

Exploring Desktop Environments

- Gnome
- Mate
- Cinnamon
- Pantheon
- KDE
- BUDGIE
- Openbox
- Deeping DE
- XFCE
- LXDE
- LXQT
- FLUXBOX

Definitions for the following terms: GUI, DE

GUI:

- Graphical interfaces that allows users to interact with the computer in a more visual way using icons, and others graphical effects. Aspects of the de to work as is intended.

DE:

- is a desktop environment thats is implemented, and runs on the top of a gui using it as a layer for abstraction level making the user experience easier.

Bulleterd list of the common elements of a desktop environment

- Desktop Settings
- Menu

- Display Manager
- File Manager
- Icons
- Favorites Bar
- Launcher
- Panels
- System Tray
- Widgets
- Window Manager

The bash Shell

What is a shell?

- to get it simply the shell is the program that takes the commands from keyboard, and gives them to the operating system to perform a task install a program or just Download software.

List different shells

- Bourne shell(sh)
- GNU Bourne-Again sh
- C shell
- Korn shell(ksh)
- z shell

List some bash shortcuts (no more than 10 and no less than 5)

- Ctrl + A - go to the start of the command line.
- Ctrl + E - go to the end of the command line.
- Alt + C - Capitalize to end of the word starting at cursor.
- Alt + U - make uppercase from cursor to the end of the word.
- Ctrl + F - move forward one character.

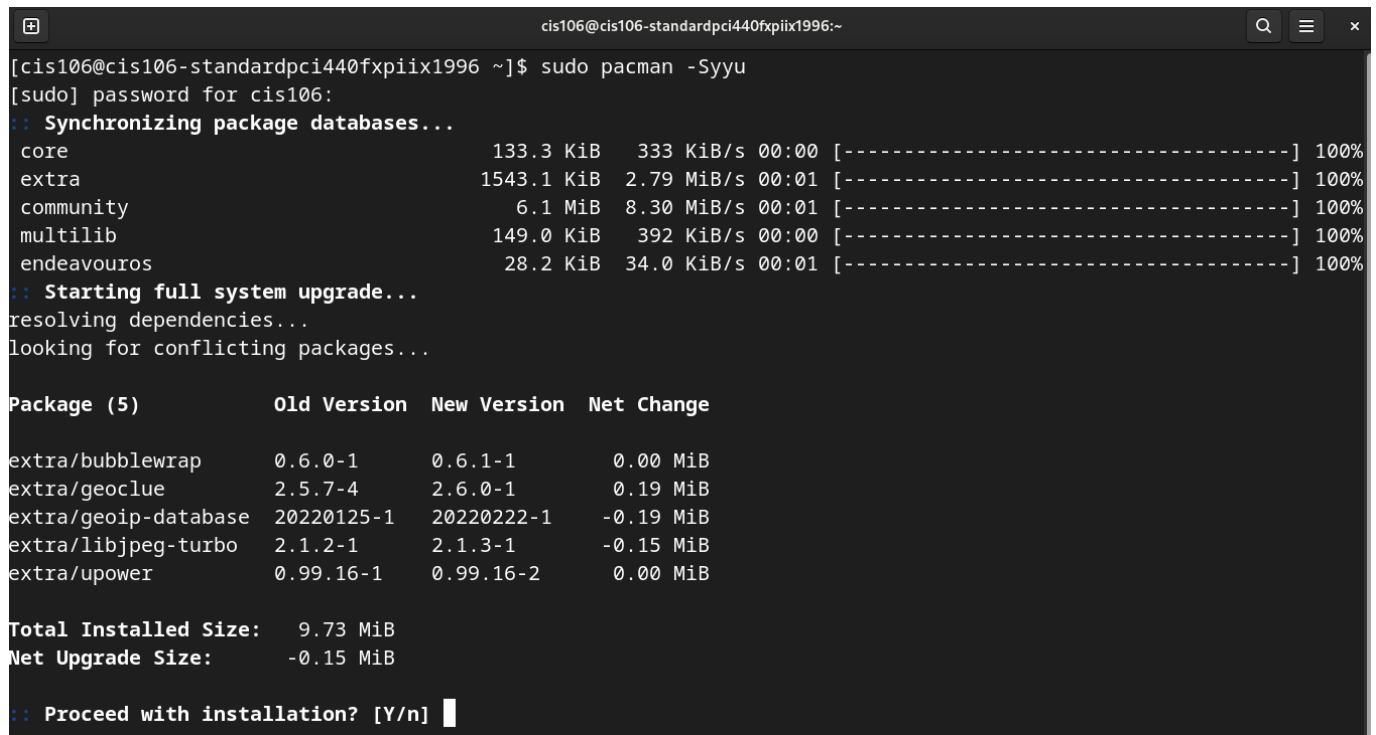
List basic commands and their usage

- date = Display the current date and time.
- cal = Display a calendar of the current month.
- df = Display the current amount of free space in our disk drives and time/
- free = Display the amount of free memory.
- uname = Display information about your system.
- clear = Display the screen.

Managing Software

Command for updating Endeavor os

`sudo pacman -Syu`



```
[cis106@cis106-standardpci440fxpiix1996 ~]$ sudo pacman -Syu
[sudo] password for cis106:
:: Synchronizing package databases...
core                  133.3 KiB   333 KiB/s  00:00 [-----] 100%
extra                1543.1 KiB  2.79 MiB/s  00:01 [-----] 100%
community             6.1 MiB    8.30 MiB/s  00:01 [-----] 100%
multilib              149.0 KiB   392 KiB/s  00:00 [-----] 100%
endeavouros           28.2 KiB   34.0 KiB/s  00:01 [-----] 100%
:: Starting full system upgrade...
resolving dependencies...
looking for conflicting packages...

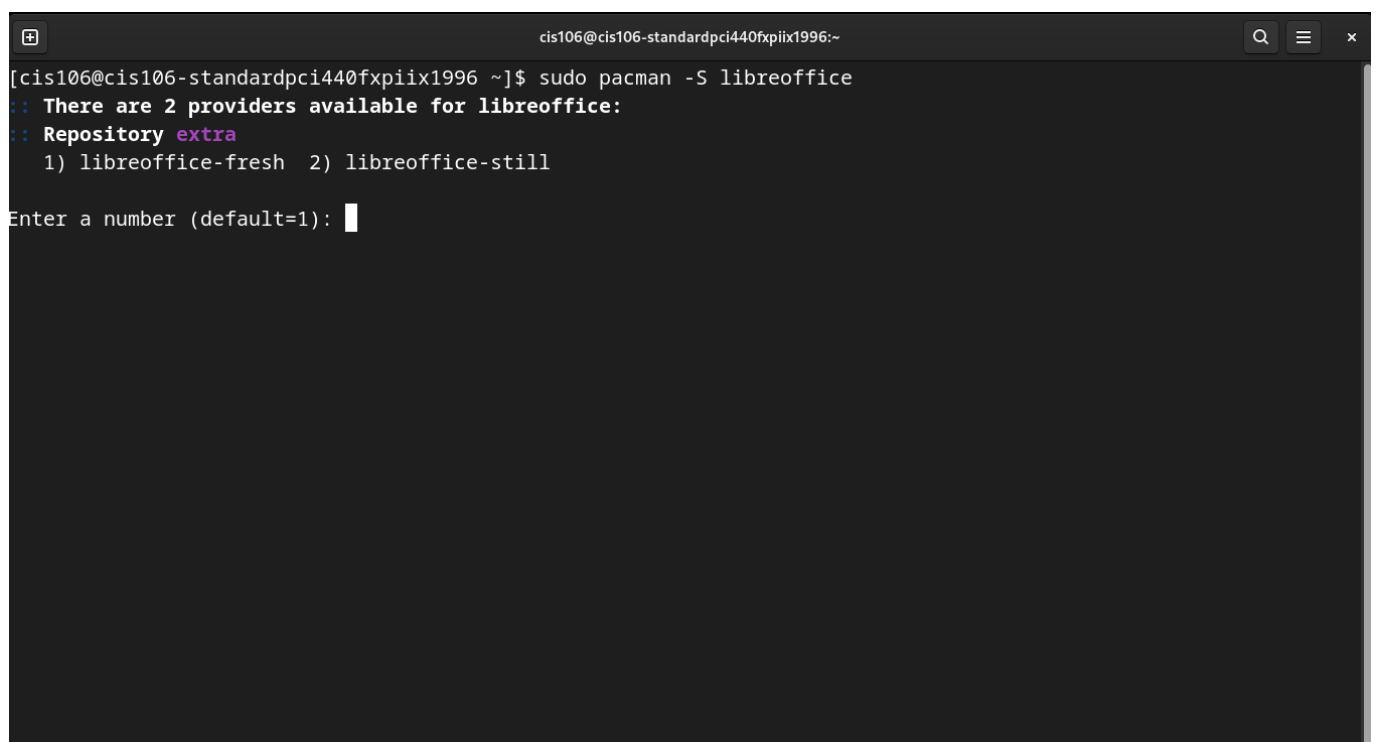
Package (5)          Old Version  New Version  Net Change
extra/bubblewrap     0.6.0-1     0.6.1-1     0.00 MiB
extra/geoclue         2.5.7-4     2.6.0-1     0.19 MiB
extra/geoip-database 20220125-1  20220222-1  -0.19 MiB
extra/libjpeg-turbo  2.1.2-1     2.1.3-1     -0.15 MiB
extra/upower          0.99.16-1   0.99.16-2   0.00 MiB

Total Installed Size: 9.73 MiB
Net Upgrade Size:     -0.15 MiB

:: Proceed with installation? [Y/n]
```

Command for installing software

`sudo pacman -S name of the software`



```
[cis106@cis106-standardpci440fxpiix1996 ~]$ sudo pacman -S libreoffice
:: There are 2 providers available for libreoffice:
:: Repository extra
   1) libreoffice-fresh  2) libreoffice-still

Enter a number (default=1):
```

Command for removing software

`sudo pacman -R name of the software to remove`

```

cis106@cis106-standardpci440fxpiix1996:~
[cis106@cis106-standardpci440fxpiix1996 ~]$ sudo pacman -R firefox
checking dependencies...

Package (1)  Old Version  Net Change
firefox      97.0.1-1     -230.97 MiB

Total Removed Size: 230.97 MiB

:: Do you want to remove these packages? [Y/n]
```

Command for searching for software

`sudo pacman -S name of the software`

```

cis106@cis106-standardpci440fxpiix1996:~
[cis106@cis106-standardpci440fxpiix1996 ~]$ sudo pacman -S wine
resolving dependencies...
looking for conflicting packages...
warning: dependency cycle detected:
warning: lib32-harfbuzz will be installed before its lib32-freetype2 dependency
warning: dependency cycle detected:
warning: lib32-mesa will be installed before its lib32-libglvnd dependency
warning: dependency cycle detected:
warning: lib32-keyutils will be installed before its lib32-krb5 dependency

Package (77)                                New Version      Net Change  Download Size
community/faudio                            22.02-1          0.35 MiB    0.12 MiB
extra/glu                                   9.0.2-2          0.35 MiB    0.14 MiB
multilib/lib32-acl                          2.3.1-1          0.04 MiB    0.02 MiB
multilib/lib32-attr                         2.5.1-1          0.02 MiB    0.01 MiB
multilib/lib32-brotli                       1.0.9-3          0.79 MiB    0.31 MiB
multilib/lib32-bzip2                       1.0.8-2          0.07 MiB    0.03 MiB
multilib/lib32-curl                         7.81.0-1         0.65 MiB    0.28 MiB
multilib/lib32-dbus                         1.12.20-1        0.40 MiB    0.15 MiB
multilib/lib32-e2fsprogs                    1.46.5-1         0.56 MiB    0.23 MiB
multilib/lib32-expat                        2.4.6-1          0.19 MiB    0.07 MiB
multilib/lib32-faudio                       22.01-1          0.27 MiB    0.11 MiB
multilib/lib32-fontconfig                   2:2.13.96-1      0.33 MiB    0.14 MiB
multilib/lib32-freetype2                    2.11.1-1         0.78 MiB    0.24 MiB
```

```

cis106@cis106-standardpci440fxpiix1996:~
multilib/lib32-libxshmfence      1.3-2                0.01 MiB      0.00 MiB
multilib/lib32-libxxf86vm       1.1.4-2             0.02 MiB      0.01 MiB
multilib/lib32-llvm-libs        13.0.1-1            113.62 MiB    28.85 MiB
multilib/lib32-lm_sensors       1:3.6.0.r41.g31d1f125-1 0.06 MiB      0.02 MiB
multilib/lib32-mesa             21.3.7-1            82.45 MiB    14.10 MiB
multilib/lib32-ncurses          6.3-1               0.61 MiB      0.22 MiB
multilib/lib32-openssl          1:1.1.1.m-1         3.36 MiB      1.33 MiB
multilib/lib32-pam              1.5.2-1             0.80 MiB      0.16 MiB
multilib/lib32-pcre             8.45-1              1.39 MiB      0.37 MiB
multilib/lib32-readline         8.1.002-1           0.36 MiB      0.14 MiB
multilib/lib32-sdl2             2.0.20-1            1.75 MiB      0.58 MiB
multilib/lib32-systemd          250.3-1             1.91 MiB      0.63 MiB
multilib/lib32-util-linux       2.37.4-1            1.03 MiB      0.37 MiB
multilib/lib32-vulkan-icd-loader 1.2.203-1           0.48 MiB      0.13 MiB
multilib/lib32-wayland          1.20.0-1            0.18 MiB      0.05 MiB
multilib/lib32-xz               5.2.5-2             0.17 MiB      0.08 MiB
multilib/lib32-zlib             1.2.11-3            0.10 MiB      0.05 MiB
multilib/lib32-zstd             1.5.2-1             0.63 MiB      0.24 MiB
multilib/wine                   7.3-1              488.10 MiB    64.22 MiB

Total Download Size: 162.79 MiB
Total Installed Size: 878.90 MiB

:: Proceed with installation? [Y/n]
```

Definition of the following terms:

Package

- is the compressed file archive of files that comes with a particular application any installations program can be package to certain distributions and configurations.

Library

- is a collection of pre compile pieces of code called functions. the library contains common functions and together, they form a package called library and usually the code reuses though the program. Using piece of code again in the program and saves time.

Repository

- is the location where something is found in significant quantities, and when the meaning is extended in computing is defined as a central location.

Include the screenshot of how to update ubuntu with its explanation (page 6)

I Go it! Apt is cool ... but how do I use it?

- To update any Debian distro:

Update is used to download package information from all configured sources.

By terminating every command with a ; you can run multiple commands in a single line.

Managing software and updates requires root privileges. Sudo allows you to run any command as the root user.

```
19:57:51 (adrian@G752VL2 ~)
sudo apt update; sudo apt upgrade -y
```

Apt is the program that we are using to manage software and updates.

upgrade is used to install available upgrades of all packages currently installed on the system from the sources configured via sources.list

The -y option passes a yes answer to any question. Without this option apt will ask you if you want to install the upgrade. Using -y is optional and you should use it only if you are 100% sure about the upgrade.

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Here are some useful examples

Install several programs in a single command

```
sudo apt install firefox flameshot caffeine -y
```

Remove several programs in a single command

```
sudo apt remove firefox flameshot caffeine -y
```

Install and remove programs in a single command

```
sudo apt install firefox+ flameshot- caffeine- vlc+
```

Remove programs and all remaining traces

```
sudo apt purge firefox+ flameshot- caffeine- vlc+
```

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In your repository create a folder for cheat sheets and place here the installing software cheat sheet, and markdown cheat sheet.