Notes 1: Bash Shell

Commands covered in lecture:

Echo

Definition:

Display line of text

Usage

• echo + option + string

Examples:

• Display a line of text without the new line

```
• echo -n "hello world"
```

• Display a line of text that includes a horizontal tab

```
• echo -e "\thello world"
```

• Display 2 lines of text in a single echo command

```
• echo -e "Line 1\nLine2"
```

• Display 2 lines of text in a single echo command, with the second line starting with a tab

```
• echo -e "Line 1\n\tLine 2"
```

- Display 2 lines of text in a single echo command that starts with a tab
 - `echo -e "\tline 1\tLIne 2"

Date

Definition:

Print or set the system date and time

Usage

data + option

- Display current date
 - date
- Display current date in rfc 5322 format
 - o date-H

Definition

Display amount of free and used memory in the system

Usage

```
free +option
```

Examples

- Display memory utilization
 - free
- Display memory utilization in human readable format
 - free -h

Uname

Definition

Print system information

Usage

```
uname + option
```

Examples

- Print all information
 - o uname -a
- Print kernal information
 - o uname -s
- Print node name
 - o uname -n

History

Definition

Shows command line history

Usage

```
history + option
```

- Display session history
 - history
- Clear session history
 - history-c

Man

Definition

An interface to the system reference manuals

Usage

```
man + option + command
```

Examples

- Open the man page of echo command
 - man echo
- Open a specific man page
 - o man 5 passwd
- Show all available man pages
 - o man -f passwd

Apt

Definition

A set of tools for managing debian packages

Usage

```
sudo(if required) + apt + apt action + package name
```

- update and upgrade
 - sudo apt update && sudo apt upgrade -y
- Install a program
 - sudo apt install firefox
- · Remove a program

- sudo apt remove firefox
- Search for a program
 - apt search "Web Browser"
- List all installed programs
 - o apt list --installed

Snap

Definition

Snaps are app packages for desktop, cloud and IoT that are easy to install, cross platform and dependency free

Usage

```
sudo(if needed) + snap + action + package name
```

Examples

- Find a snap
 - snap search "video player"
- o Install a snap
 - sudo snap install vlc
- Remove a snap
 - sudo snap remove vlc
- Update snaps
 - sudo snap refresh

Flatpak

Definition

Flatpak is a next generation technology for packaging, distributing, and managing software in Linux

Usage

```
sudo(if needed) + flatpak + action + package id
```

- Search for package
 - flatpak search "video player"
- Install package
 - flatpak install org.videolan.VLC
- Remove flatpak
 - flatpak remove org.videolan.VLC

- Update packages
 - flatpak update