# Notes 1: Bash Shell

Commands cover in lecture:

## **Fcho**

Definition:

Display a 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
```

## **Examples**

- · Display current date
  - date
- Display current date in rfc 5322 format
  - date -R

## free

#### 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

```
usage + option
```

## **Examples**

- Print all information
  - uname -a
- Print kernel information
  - uname -s
- Print node name
  - uname -n

# history

## Definition

Shows command line history

## Usage

```
history + option
```

## **Examples**

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

#### man

#### Definition

An interface to the system reference manual

## Usage

```
man + option + command
```

## **Examples**

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

## apt

## Definition

A set of tools for managing debian packages

## Usage

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

## **Examples**

- · 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
  - 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"
- 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
```

## **Examples**

- 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