

# Notes 1:Bash shell

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Commands covered in lecture

## Echo

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 "hello 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"`

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## 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

`uname + 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 manuals

### usage

`man+option+command`

### Examples

- Open the man page of echo command
  - `man echo`
- Open 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 tilix`
- Search for a program
  - `apt search "web browser"`
- List all installed programs
  - `apt list --installed`

## Snap

### Definition

snaps are app packages for desktop, cloud abd lot 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

Flatpack 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`