

# Notes 1: Bash Shell

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Commands cover 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 "\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"`
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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`
  - Sets the time described by the string
    - `date -s`
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## free

## Definition

Displays the amount of free memory left on the system

## Usage

`free + option`

## Examples

- Displays the amount of memory in bytes
    - `free -b`
  - Displays the amount of memory in kibibytes
    - `free -k`
  - Displays all output fields automatically scaled to the three shortest digits
    - `free -h`
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## uname

### Definition

Displays information about your system

### Usage

`uname + option`

### Examples

- Displays all information about the system
    - `uname -a`
  - Displays the kernel name
    - `uname -s`
  - Prints the network node hostname
    - `uname -n`
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## history

### Definition

Displays shell command history

### Usage

`history + option`

### Examples

- Clears the command history

- `history -c`
  - Starts a history substitution, except when followed by a blank
    - `!`
  - Removes a trailing file name components, only leaving the head
    - `h`
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## man

### Definition

A reference to the system reference manuals

### Usage

`man + man option + section page`

### Examples

- Displays the manual for the item (program)
    - `man -ls`
  - Displays the manual page for macro package man
    - `man -man.7`
  - Displays all of the intro manual pages contained within a manual
    - `man -a intro`
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## apt

### Definition

Provides a high-level command line interface

### Usage

`apt + command + option`

### Examples

- Configures a string
    - `apt -o`
  - Configures files
    - `apt -c`
  - Releases target
    - `apt -t`
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## snap

### Definition

Packages that work across many different Linux distributions, enabling secure delivery and operation of your latest apps.

## Usage

`snap + options`

## Examples

- Aborts a pending change
    - `abort`
  - Adds an assertion to the system
    - `ack`
  - Sets up a manual alias
    - `alias`
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# flatpak

## Definition

A next generation technology for packaging, distributing, and managing software in Linux

## Usage

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

## Example

- Shows help options and exit
  - `flatpak -h`
- Shows debug information during command processing
  - `flatpak -v`
- Shows OSTree debug information during command processing
  - `flatpak --ostree-verbose`