Basic Commands

Know these:

or u r off of teem
(jk but pls know them)

- **ls** - list contents of directory
- **cd** - change directory
- **nano** - text editor
- **mv** - move file
- **rm** - remove file(s)
- **man** - command help
- **cp** - copy file(s)
- **cat** - output file to terminal
- **less** - cat but scrollable
- **sudo** - run command with
    root privileges
- **su** - log in as user
- **exit** - quit session
- **reboot/poweroff** - what it says

ls

- lists the contents of a directory
- Examples:
  - `ls`   - lists contents of current directory
  - `ls /home`   - lists contents of /home
- Options:
  - `-a` – show hidden files
  - `-l` – long listing format (shows timestamp, owner, permissions, size, etc)
  - `-R` – searches recursively

cd

- "change directory"
- Examples:
  - `cd`   - goes to your /home directory (/home/username)
  - `cd /etc/ssh` - goes to /etc/ssh
  - `"cd ../"` will back you up one directory level
  - `keep repeating "../" to go back multiple directories; 3 times will go back 3 directories`

nano

- simple text editor used within command line
- Examples:
  - `nano` - creates a new unnamed file
  - `nano file.txt` - creates a new file called file.txt if one doesn't exist
  - `nano /home/hello`- creates file in /home if it doesn't exist
- If files opened with nano do exist, you will be able to edit them
- Options:
  - `-w` - disables wrapping on long lines

nano - simple shortcuts

- **Ctrl+O** - save a file, will prompt to enter new name or keep current name
- **Ctrl+X** - exit
- **Ctrl+K** - cut a line of text
- **Ctrl+U** - paste line of text
- **Ctrl+W** - find text in file
- **Ctrl+C** - cancel
- **Ctrl+6** - cut a portion of text; press **Ctrl+6** at beginning and end of segment (move cursor with arrow keys), then run **Ctrl+K** to cut just that portion of text instead of the whole line, **Ctrl+U** to paste

mv

- moves a file
- Examples:
  - `mv file1 file2` - renames a file if file2 does **not** exist
  - `mv file1 file2` - overwrites the contents of file2 if it **does** exist
  - `mv file /home` - moves a file to /home
  - `mv file ../../` - moves a file down 2 levels

rm

- removes a file or directory
- Examples:
  - `rm file.txt`   - removes file.txt
  - `rm -rf /home/andrewisaloser` - removes folder called "andrewisaloser"
- Options:
  - `-r` = removes files recursively
  - `-f` = forces the remove command
    - force = ignore any warning messages
    - When trying to delete a directory, will give a message saying "'blah' is a directory"
    - This option disregards this

man

- shows the manual page for the given command
- Examples:
  - `man ls` - shows how to use the ls command + its options
  - `man [replace with any command]`
- When in a manual page, press **q** to quit

cp

- copies files from one destination to another
- Examples:
  - `cp file /path/to/directory` - copies a file to a directory
  - `cp -R /home /bin` - copies the contents of a directory to a location
- Options:
  - `-R` - copies recursively

cat

- displays, **concatenates** (joins), and creates new files
- Examples:
  - `cat file` - displays file
  - `cat file1 file2 file3` - concatenates 3 files together
  - cat > file - creates a blank files

less

- displays a file but allows forward and backward scrolling
- Examples:
  - `less file` – will output the file
  - `ls -R /home | less` – will pipe output of `ls -R /home` to `less`
- Press **q** to quit less

sudo

- sudo stands for SUPER USER DO
- elevates privileges to root level
  - Many commands require root privileges to be executed in the interest of protecting system data
  - Purpose = to gain root privileges without having to log into root account
    - Note: in competition, it don't matter as much if you log in as root
- Examples:
  - `sudo apt-get install mlgflappybird420` – will run command as root
- Press **q** to quit less

su

- logs in as any user in your current terminal session
- Examples:
  - `su pleb`   - logs in as user pleb
  - `sudo su`   - logs in as root
- **Note:** `su` by itself attempts to log into the root account, but root privileges are needed for this to work, hence the `sudo` @ the beginning

exit

- exits the current terminal session
- Examples:
  - `exit` - exits the current session, just type it once and ur good
- Type this as many times as you need to

Exit programs

- if you wanna exit a program, most of the time you can type CTRL+C and it will exit the operation. sometimes, however, you cannot do this and you will have to close the terminal.

reboot/poweroff

- Reboots and powers off the machine
- Examples:
  - `reboot`
  - `poweroff`

tabs

- not a command, just something important
- when you are executing a command with an argument that is a file, a directory or some other object in a collection, type the argument, press tab, and will display all options starting with those characters.
- EXAMPLE: if you have myfolder/, can do "cd myf[PRESSES TAB]" will complete the path IF myfolder/ is the only object in that directory starting with "myf"

Copy and paste

- also just something a bit useful, if you want to copy something:
  - highlight it
  - press middle mouse button
- BUT: will immediately paste to where your text cursor is currently at as soon as you press middle mouse button

Previous commands

- up and down arrow keys to go to forward and back in history
- Sounds weird - definitely try this several times to fully understand.