

CISC 1600/1610 Computer Science I

Using Linux

Dr Daniel Leeds
dleeds@fordham.edu

Linux/UNIX programming environment

- Text commands
- Directory structure

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Command-line interface

Run programs through text commands, rather than through mouse clicks

The “terminal” runs a command-line interpreter

1. Interpreter waits for a command
2. User enters text command
3. Interpreter determines activity to perform based on command
4. Output of activity displayed in terminal
5. Go back to waiting (step 1)

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Command-line: typical format

```
> command_name [additional_inputs]
```

command_name is an executable file
additional_inputs can be included

- to specify special behaviors of the command
- to tell the command to act on certain files

Example: making a copy of your M file:

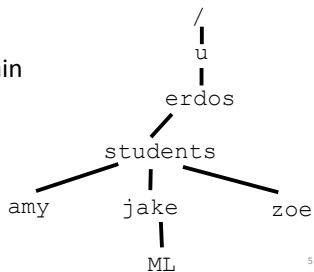
```
> cp myProgram.m myProgram_COPIED.m
```

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Directory structure

Files are stored in directories in your computer. We can store our Matlab code and data files on the computer `erdos.dsm.fordham.edu`

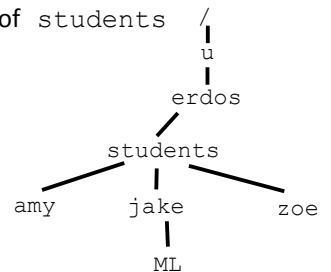
Directories can contain other directories within them



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Directory structure

zoe is a subdirectory of students



The “full path” of **ML** is:

`/u/erdos/students/jake/ML`

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Key commands

Logging into erdos

```
ssh username@erdos.dsm.fordham.edu
```

Show name of current directory ("print working directory")

```
pwd
```

List contents of current directory

```
ls
```

Make new directory

```
mkdir newDirectory
```

Change directory

```
cd newDirectory
```

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Key commands

Logging into erdos

```
ssh username@erdos.dsm.fordham.edu
```

Opening a new file to write

```
vi myProgram.cpp
```

Using Matlab

```
matlab
```

```
matlab -nodesktop
```

There are many other Linux commands. I highly recommend you use my list of commands online[®]

Editing in vi

vi is a very simple text editor that runs in two modes

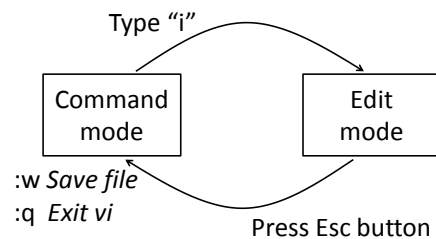
- Command Mode
- Edit Mode

In edit mode: type in all the text you want in your file

In command mode: save your file and exit

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Editing in vi



There are many other vi commands. I highly recommend you use my list of commands online

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