vi editor

- Is the basic UNIX editor
- Two modes:
  - Command mode
  - Insert mode

i, a, o

exit ← Command mode ⇄ Insert mode

:q   **ESC**
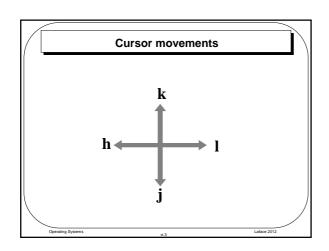
Starting vi

- **vi file**
  edit *file* (create **file** if it does not exist)
- **view file**
  edit **file** but doesn't allow modifications
- **vi -r file**
  edit **file** trying to recover what has been changed (and not saved) before the session has been interrupted.

Cursor movements

k

h ← → **l**

j

Text insertion

i text	insert text at the cursor position
a text	append text at the cursor position
O text	open a new line before the current line
o text	open a new line after the current line
:r file	read the content of **file** after the current line

I/O and exit commands

:r file	read the content of **file** after the current line
:w [file]	save buffer to **file**
:e file	edit **file**
:wq	save the current **file** and quit
:q	quit editing without saving file
:q!	quit editing without saving file

Cursor Movements

– Arrows keys, or keys **h j k l**

–	**w**	next word
–	**0**	beginning of line
–	**$**	end of line
–	**CTRL-f**	a screen forward
–	**CTRL-b**	a screen backward
–	**1G**	first line of file
–	**G**	last line of file
–	**nG**	to line **n**

Delete Commands

- Delete:
  - `[n] x`   delete next *n* characters
  - `[n] dw`   delete next *n* words
  - `[n] dd`   deletes next *n* lines
- Problems?
  - `u`   undo last change
  - `U`   undo all changes to the current line

Modifying a Text

- `J`   merges current and next line
- `r char`   replace the character under the cursor with `char`
- `s text ESC`   replace the character under the cursor with `text`
- `.`   repeats last command

Cut, Copy and Paste Commands

To copy or move a text, it must be selected and stored in a buffer
- `[n] yy`   copies in a buffer `n` lines
- `[n] dd`   copies in a buffer and deletes `n` lines

The buffer content can be inserted before or appended after the cursor line using:
- `P`   paste buffer before the cursor line
- `p`   paste buffer after the cursor line

Special characters

- **CTRL-v special-char**
- Insert the ASCII code of a special character such as Ctrl-H, Ctrl-L, Ctrl-M or ESC

Replace commands

- **:s/march/april/**
  replaces the first occurrence of **march** in current line with **april**
- **:s/march/april/g**
  replaces all occurrences of **march** in current line with **april**
- **:n[,m]s?/usr/bin?usr/local/bin?**
  replaces the first occurrence of **usr/bin** with **usr/local/bin** in lines **n** to **m** inclusive
    - » notice the use of **?** as string delimiter

Search Commands

- **/pattern**   forward search a string matching **pattern**
- **?pattern**   backward search
- **n**   search next occurrence

The pattern is a string or a *regular expression,* i.e. a string including characters with a special meaning

Regular expressions in `vi`

- `.`   a character
- `^`   beginning of line
- `$`   end of line
- `*`   repeat (zero or more times)
- `+`   repeat (one or more times)
- `[…]`   a character included in the bracket list
- `[^ …]`   a character except the ones included in the bracket list
- `[x-y]`   a character in the specified range
- `\<`   word beginning
- `\>`   word ending

Search Commands

- Examples:
  - `/\<[A-Z]`   forward search a word that begins by a capital letter
  - `/^summer`   forward search string `summer` at the beginning of a line
  - `/\> ing`   forward search string `ing` at the end of a word
  - `?##*`   backward search a sequence of one or more characters `#`