# Introduction to Vim, I

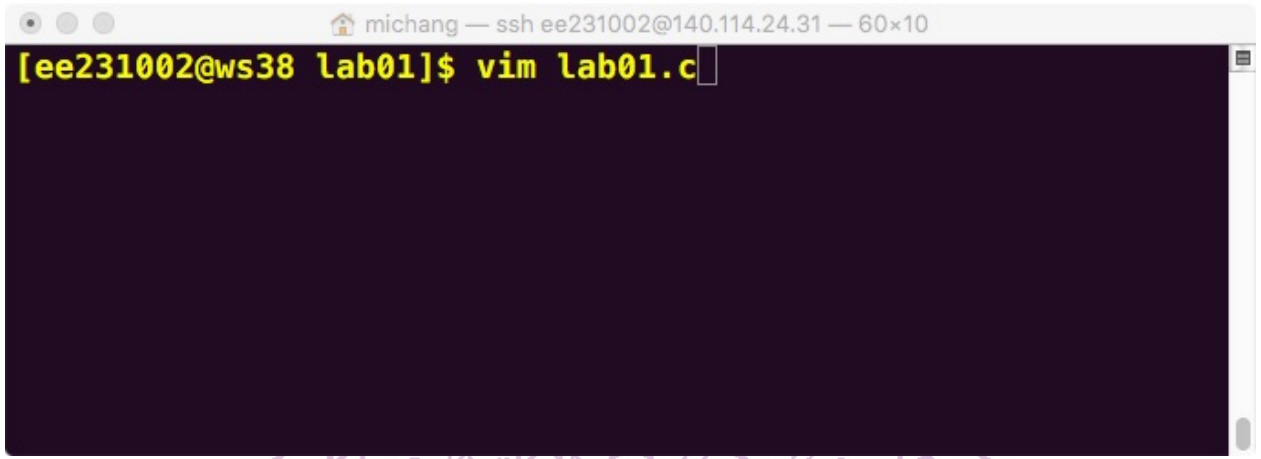
Introduction to Programming

EE231002

Sep. 26, 2016

# Starting vim

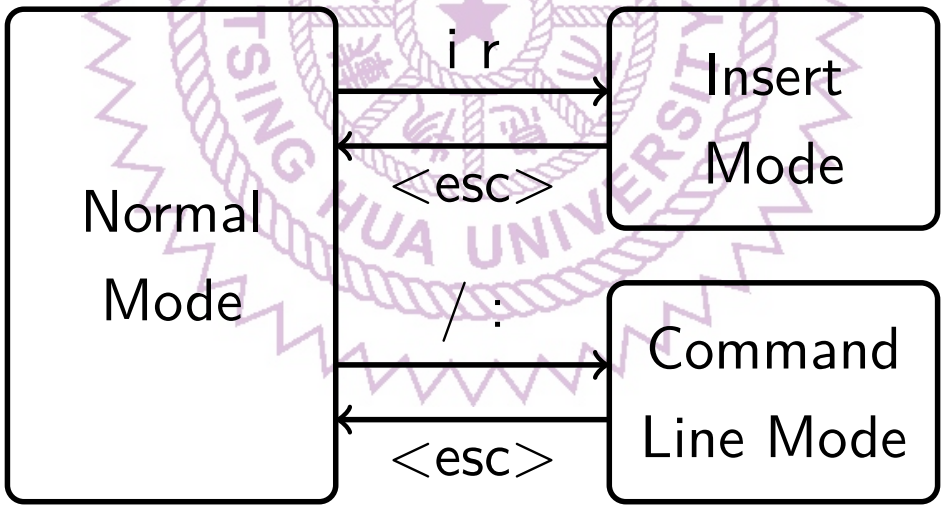
- To start `vim`: `vim file`




- For new file

# Three Modes in vim

- There are three modes in `vim`
  - Normal mode: copy, delete, paste
  - Insert mode: insert text
  - Command line mode: save file, exit, search and replace



# Inserting Text

- When `vim` starts, it enters normal mode
- Press `i` to enter insert mode
  - Note the `-- INSERT --` on the lower-left corner
  - You can type in C program at this time

# Insert Mode

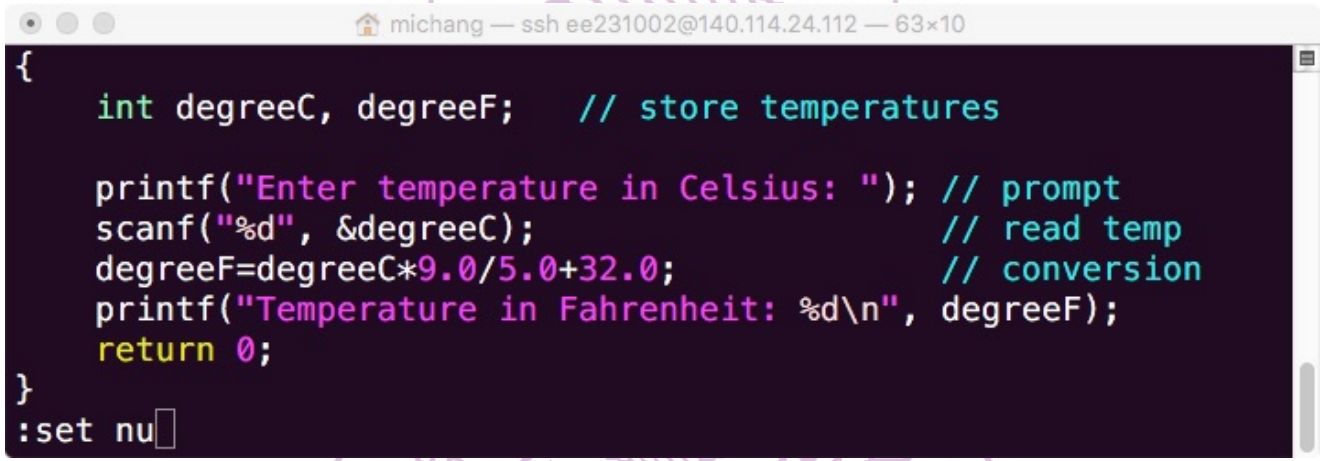
- In insert mode, you can type in texts
- To move cursor
  - ↑, ↓, ←, → keys move cursor in four directions
  - PgUp and PgDn keys scroll one page of text
  - Home key moves cursor to the beginning of the line
  - End key moves cursor to the end of the line
  - Tab key moves cursor to fixed columns (4x or 8x)
    - In our labs please use Tab key for indentation and each Tab key moves 4 spaces
- Press Esc key to return to normal mode

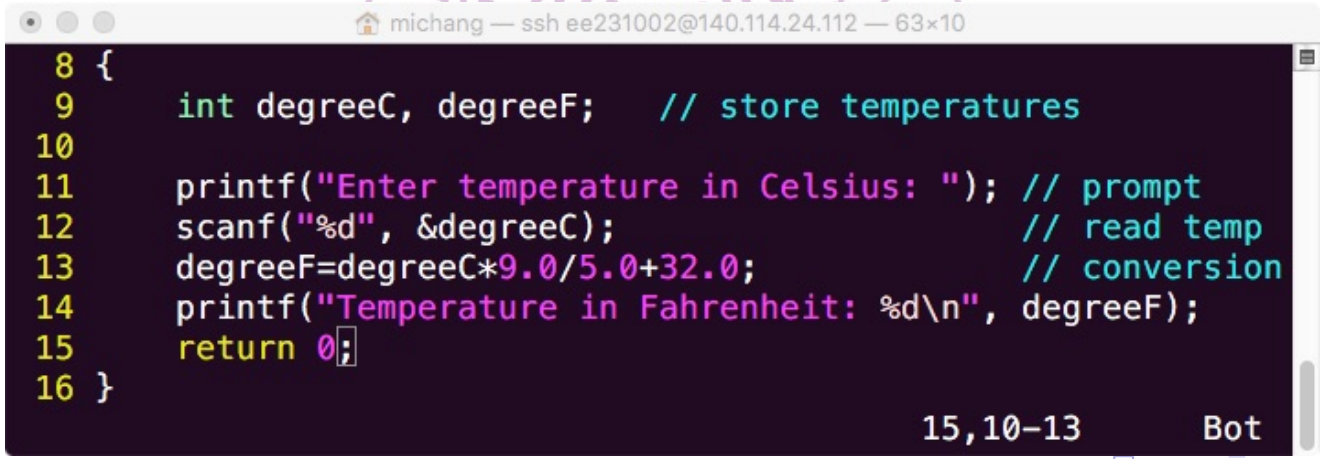
# Quitting vim

- In normal mode, the following commands save file or quit `vim` program
  - `:w`: save typed inputs to the file
  - `:q`: quit `vim` program (no saving file)
  - `:q!`: forced quitting from `vim` program
    - Changes are not updated to the file
  - `:wq`: save file and then quit `vim` program
  - `ZZ`: same as `:wq` but is a normal mode command
  - Note that that the above except `ZZ` are executed in command line mode

# Show Line Numbers in vim

- `vim` does not show line numbers by default
  - Line numbers are very useful in debugging compiler errors
  - To show line number type in `:set nu` in normal mode



# Color Text

- `vim` takes advantage of the color terminal to make the file more legible
- The text color can be turned off by using `:syntax off` command
- `:syntax on` turns on color text

michang — ssh ee231002@140.114.24.112 — 63×9

```
    int degreeC, degreeF;   // store temperatures

    printf("Enter temperature in Celsius: "); // prompt
    scanf("%d", &degreeC);                    // read temp
    degreeF=degreeC*9.0/5.0+32.0;             // conversion
    printf("Temperature in Fahrenheit: %d\n", degreeF);
    return 0;
}
                                              15,10-13      Bot
```

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```
    int degreeC, degreeF;// store temperatures

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                                              15,10-13      Bot
```
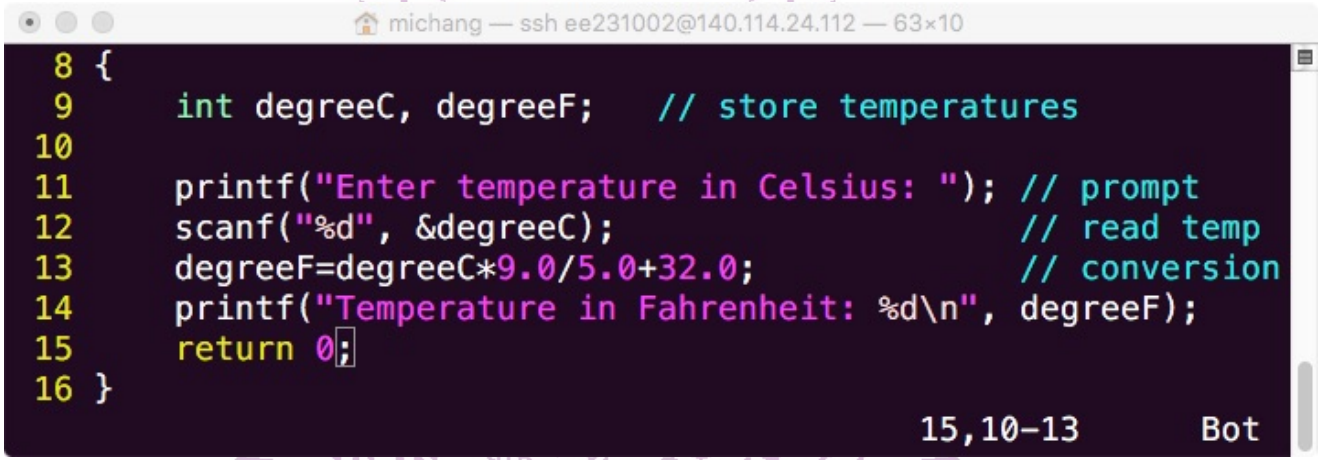

# Color Text, II

- Depending on terminal background, the text color may need to be adjusted
- `:set bg=dark`




- `:set bg=light`

# Auto-indent

- In insert mode, after typing a line of text the cursor moves to the first column – not aligned with the indented text
- This can be changed by `:set ai`, auto-indent, command
- `:set noai` sets no auto-indent

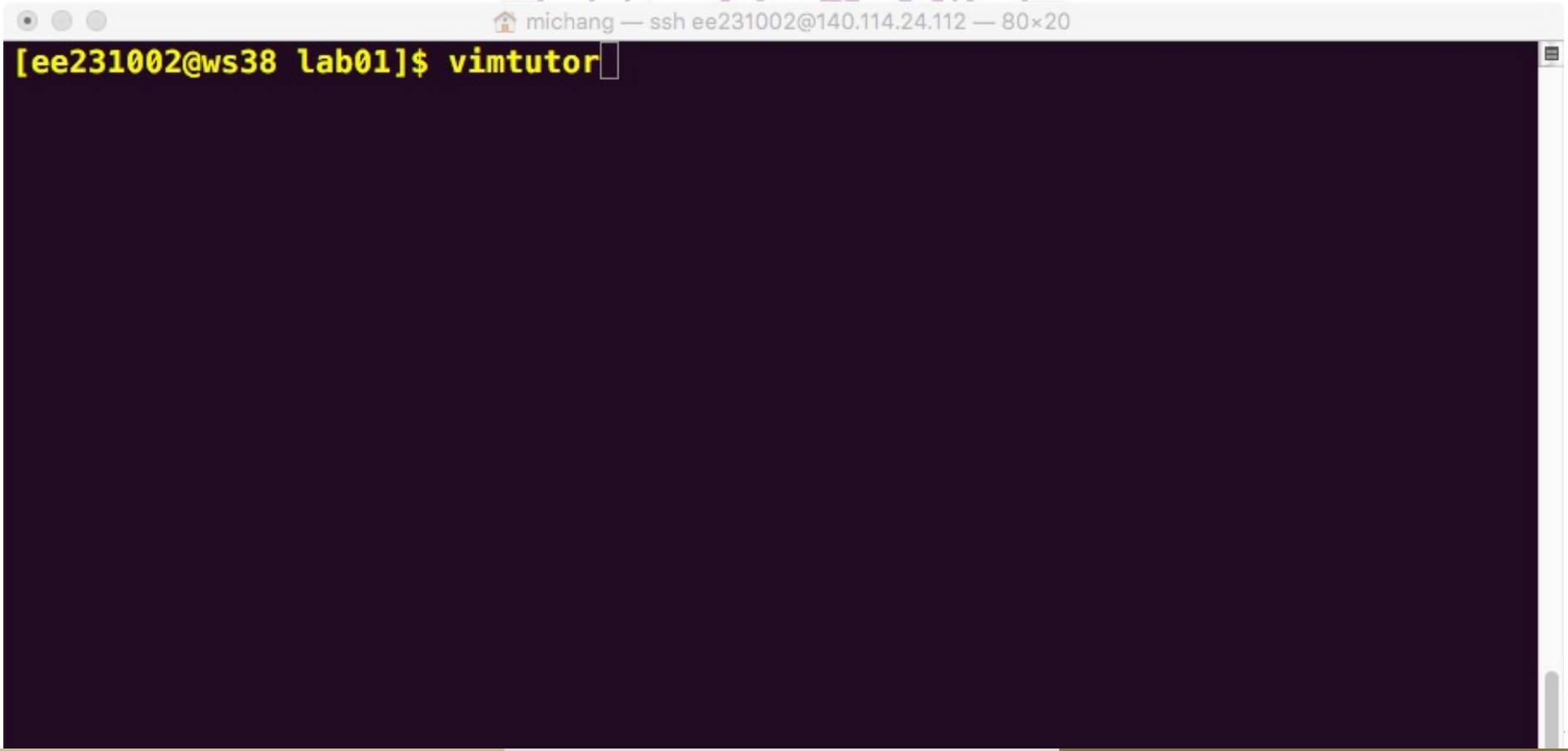
# .vimrc

- `vim` program executes the commands in `.vimrc` every time it is invoked.
- Please copy `~ee231002/.vimrc` to your home directory


- This file sets
  - Auto-indent mode
  - Each `Tab` inserts 4 spaces

# vim Tutorial

- `vim` program provides a tutorial for users to learn the easy commands
- At a linux terminal type in `vimtutor` as following to enter the tutorial



# vim Tutorial, II

- Most frequently used commands are demonstrated