

CS1010

Programming Methodology

Lecture 3

28 August 2018

Unit 5: First C Program

Unit 6: CS1010 I/O

Unit 7: Arithmetic Operations

Tutorial

Group 9 has 6 students.

invest time to master the tools

(e.g., bash, vim, git, etc) think long term benefits, not how to get things done now

工欲善其事,必先利其器

Confucius said: To get things done properly, get the tools ready first.

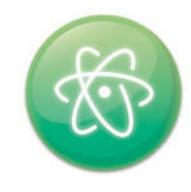
Use a source code editor

No IDEs work for all programming languages / tasks

Use one that last through your whole career







Use one that is installed by default on most places

Use one that is terminal based

emacs vim

ADVANCED HOTKEYS

UNIT ACTIONS

Learn Ability	К
Upgrade Stats	
Move	М
Patrol	P
Cancel Current Action	5
Select All Other Units	F7
Activate Glyph	L
Taunt Item	
Action Item	IJ

SHOP ACTIONS

Courier Speed Burst	F6
Purchase Sticky	С
Take Stash Items	X
Open Shop	Ω

CAMERA ACTIONS

Camera Up	I.P
Camera Down	DOWN
Camera Left	LEFT
Camera Right	RIGHT
Camera Zoom In	MWHEELUP
Camera Zoom Out	MWHEELDOWN
Show Recent Event	В
Showcese View	

SAVED CAMERA POSITIONS

Position 1	KEYPAD 1	Position 2	KEYPAD 2
Position 3	KEYPAD 3	Position 4	KEYPAD 4
Position 5	KEYPAD 5	Position 6	KEYPAD 6
Position 7	KEYPAD 7	Position 8	KEYPAD 8
Position 9	KFYPAD 9	Position 10	KEYPAD 0

INTERFACE

Screenshot	F12
Console	

CONTROL GROUPS

Group 5		Croup 6	
Group 7	7	Croup 8	8
Group 9		Croup 10	

HOTKEYS OPTIONS

- Quickcast On Key Down
- Double Tap Ability to Self Cast
- Smart Double Tap
- Shop Always Uses Hotkeys
- Left-Click Activates Camera Grip
- Use Legacy Keys
- Allow Windows / Command key to be bound
- Bind keys based on keyboard position
- Enable Separately Bindable Quickcast Hotkeys

if you can learn the hotkeys for games, you can learn the hotkeys for vim:)

Tips: build up your muscle memory

Basic movement: hjkl Mode switching: i ESC Save and quit: ZZ

The rest: keep asking "how to do this faster?" and learn from the answer.

vim is ergonomic

j and k is used in many places (Gmail, Facebook, man, etc)

Let's C

char short int int long int long long int

char short int long long long

unsigned char unsigned short unsigned int unsigned long unsigned long long float
double
long double

#include <stdint.h>

int8_t uint8_t
int16_t uint16_t
int32_t uint32_t
int64_t uint64_t

#include <stdio.h>

stdin stdout stderr

```
long b = 10;
long c = 2;
long a = b + ((2 * c) / 4);
```

```
index = index + 1;
age = age * 2;
```

```
index += 1;
age *= 2;
```

```
index++;
approval--;
```

```
++index;
--approval;
```

++ and -- are banned in CS1010

```
uint8_t c = 255;
c += 1;
```

double half = 3/2;

```
double half = 3/2.0;
```

double half = 3/(double)2;

Tutorial 2

Problem Sets 3 and 5 Exercise 0 (in class)

Assignment 1

Released 7 Sept Due 14 Sept