Lecture 1
CS 137
Fall 2014
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Outline

- 1) Basic C programmming
  - variables, expressions
  - integers, characters, floating point, string
  - loops, conidtions
  - basic memory model
- 2) Functions, parameters, arguments, recursion
- 3) Arrays, pointers, the C memory model
- 4) structures, dynamic memory model
- 5) searching, sorting, time and space complexity
- 6) other algorithms and fun stuff (Not in Text)

Core CS Sequence for SE

1A CS 137 - Programming Principles
1B CS 138 - Data abstraction, ADT's Linked structures, C++
2A CS 241 - Sequential programming (compilers)
2B CS 247 - Abstraction and specification

Developing C programs

- Linux / Mac -> vim, emacs, eclipse
- Mac -> xcode
- Windows -> cygwin, visual c++, dev c, code blocks

First C program

```c
#include <stdio.h>

int main(void){
        printf("Hello World!\n");
        return 0;
}
```

Compiling the code

- nano hello.c //creates hello.c
- gcc hello.c //creates a.out
- ./a.out

Readings

Read chapter 1 and 2
Skim chapter 3