CS138 Abbreviated Exam Review

David Lu ft. Tim V.

April 18, 2016

1 Basic Knowledge

- History
  - Unix history
  - GNU, RMS, Software
  - FORTRAN, COBOL, BASIC, Lisp, etc.
- Unix
  - File Permissions (RWX)
  - Unix commands
- Classes
  - Constructors
  - Destructors
  - Operators
  - Access controls
  - Friends
- Structs
  - Variables (all public)
  - Functions on structs
  - Pointers

2 Data Structures

- Vector
- String
- Linked List
- Queue
- Stack
- Tree
- Heap
- Hash Tables
- Map
- Set

3 Inheritance

- Public, protected, private inheritance
- Virtual functions (destructor, functions, etc.)
- Multiple inheritance

4 Advanced C++

- Templates
- Casting
- Containers
- Iterators
- Algorithm Library
- Dynamic types
- Generics
- Adaptors (STL + Others)
- C++ vs. Java

5 C++11

- array
- forward_list
- unsorted_set
- unsorted_map
- unsorted_multiset
- unsorted_multimap