

Review Midterm Exam

COMP3220 – Principle of Programming Languages

2016 Spring

1 Introduction

Difference between compiled languages and interpreted languages, or compiler v.s. interpreter.

2 Tutorial – C++

You can read and understand simple C++ code snippets. In the midterm exam, you are expected to execute simple code *within your mind* and write down the results. You won't see the insane code like `++ ++i;`. And I won't ask you to write code on paper, never. Because I hate it.

3 Variables

1. Special words in PL, i.e., keywords and reserved words.
2. Concepts of static type binding and dynamic type binding, advantages and disadvantages.
3. Scope of variables, dynamic scoping and static scoping.
4. Lifetime of variables.

4 Data Type

1. Array. Memory layout, compile type descriptor.
2. Record. compile type descriptor.

3. Pointer problems
4. Type equivalence. Name equivalence and structural equivalence. C++ example of type equivalence.

5 Statement and Control Structure

NOT COVERED IN MIDTERM EXAM.