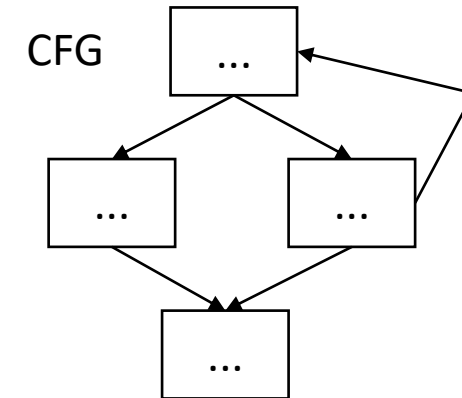
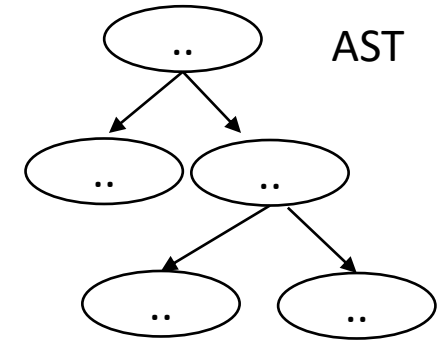


CSE110A: Compilers

MIDTERM STUDY GUIDE



3 address code

```
store i32 0, ptr %2
%3 = load i32, ptr %1
%4 = add nsw i32 %3, 1,
store i32 %4, ptr %1
%5 = load i32, ptr %2
```

Midterm

- Given on Tuesday, May 6, at this time.
- ~3 questions with multiple parts
- I will not be there
 - It will be proctored by Rithik and Yanwen and some tutors
- Split between 2 rooms
 - We will use our normal classroom

Midterm study guide (so far)

Any of the following are fair game. Anything not listed below but in the lectures are fair game. Any combination of topics is fair game. This is only meant to be an overview of what we have discussed so far.

Midterm study guide (so far)

- Regular expressions
 - Operators, how to specify, how match vs full match works
- Scanners
 - What the API is, how strings are tokenized, how to specify tokens, token actions
- Grammars
 - How to specify a grammar, how to identify/avoid ambiguous grammars, how to show a derivation for match, parse trees
 - How to re-write grammars not to be left recursive, how to identify first+ sets
 - How the top down parsing algorithm works, how a recursive decent parser works
- Symbol tables
 - How scope can be tracked and manage during parse time, symbol table specification and implementation
- No material from Module 3
- No material from Bottom-Up Parsing

Announcements

- Homework 1, has been graded
- If you have questions about your grade check with your TA
- You have a limited amount of time to request regrades.
- Homework 2 will be due Thursday at 11AM
- A new software has been provided to you to learn more about FIRST, FOLLOW, and FIRST+ sets. You can use the to help with your homework.
- Homework 3 will be released on Thursday.