CSCE 531
Compiler Construction

Programming in C
Kernighan & Ritchie
On to C
A Book on C
C: A Reference Manual
Harbison & Steele

Exams: 1 Midterm 15%
1 Final 35%

~~Homework~~ & Project
2 individual HW assignments (both programming)

Project (teams of 2-3 (3 preferred))
Bulk of a compiler for Pascal programming language (in C)
3 stages:
1. variable declarations, type declarations
2. Assignment statements, procedure & function calls, procedure & function decl's.
3. Control flow, array accesses

Each part has 3 levels of functionality.
60%, 90%, 100%

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2 compiler construction tools: lex, yacc
Lexical analyzer generator
Parser generator
GNU: flex, bison

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www.cse.sc.edu/~fenner/csce5

Official platform: Linux machines in the department
pluto.cse.sc.edu
eos. ---- _

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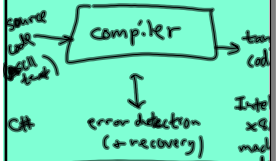
subject:
CSCE 531:

What is a compiler?
Translating code from one language ("source langu
into another language ("target
Source — usually high-level programming language
target — usually some lower-level language



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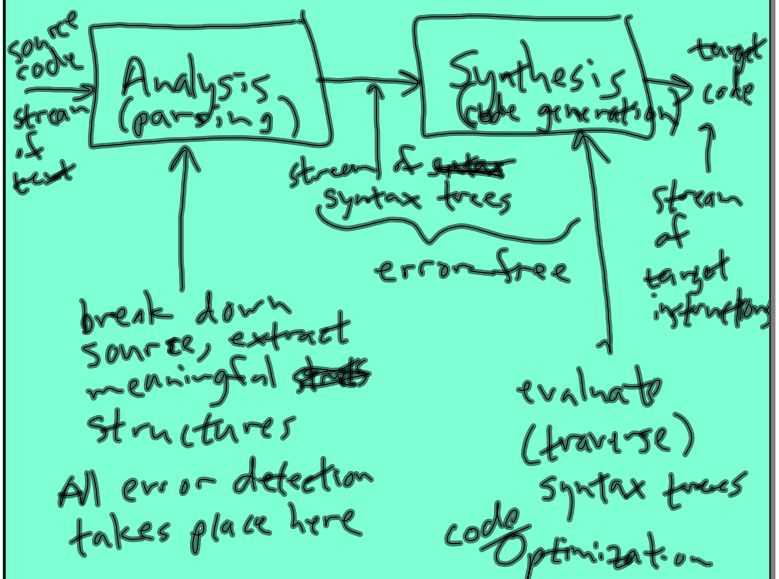
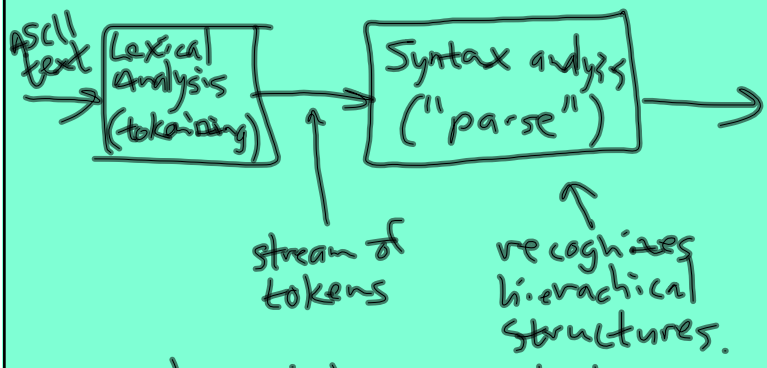
closer look:

Jan 10-11:04 AM

Front end:



Analysis ~~Parsing~~ phase:



examples: integer constants

36

+, -, ++, --, =, ==

;, >, >=, ., ., (

identifiers: foo17

Symbol Table communicates with lexer & parser, code generator