

# Final Project

A Compiler of SPL

Deadline: 22:00, 31 May

# Final Project

- About Final Projects 【实验要求以实验手册为准】
  - Compiler of SPL (or a C-like language)
  - Target code: MASM/MIPS
  - Team ( $\leq 3$  persons)
  - Final presentation
- Deadline: 22:00, 31 May.
- All **source codes**, documents (including **experiment report**, presentation PPT file) should be archived and named as ID1Name1\_ID2Name2\_ID3Name3.zip (or .rar). To reduce the size of archived file, the intermediate files, such as object files, debug info files, should not be archived.
- The **experiment report** should be written on experiment **format** to explain how the compiler is constructed, including description of all phases of the compiler construction.
- The archived file should be send to the email address of TA.

# Points of Presentation

- Peoples, division of work
- Scanning. Using Lex?
- Parsing. Using Yacc?
- Semantic Analysis
  - Symbol table, type checking...
- Code generation
  - Use LLVM?
  - Target: MASM or MIPS
  - Runtime environment
- Optimization?
  - Constant folding/propagation, common expression elimination, register allocation...

# Summary of Your Project

Compiler Component	Status	Details
Scanning	✓	Lex?
Parsing	✓	Yacc?
Semantic Analysis	✓	
Intermediate Code Generation		
Intermediate Code Optimization		
Target Code Generation		LLVM? MASM?
Target Code Optimization		MASM?MIPS?
Other Optimizations, e.g. constant folding...		
Runtime Environment		
Symbol Table		

# About Projects

- Homework projects ( $2.8+5.6=8.4$ )
  - Two projects
- Final Projects (**16.6**)
  - Team
    - At most 3 persons
  - Final presentation and demonstration
  - **Copying code is NOT allowed.** (We use plagiarism detection software.)
  - Start early! **Deadline:** the 5<sup>th</sup> Sunday of the summer semester.
  - Pass the test examples.

