

Compiler Design 2024



Today

- Expectations
- Guidelines
- Timeline
- `compiler_core`
- `compiler_design`
- Workflow
- Questions



Expectations

- Inclusive language
- Constructive criticism
- Be mindful of others' time
- Try to be open, honest, clear
- 48 hours notice
- Weekly scrum: Tuesdays @ ~10:50
- Weekly peer coding (TBD)



Guidelines

- Comment code clearly
- Resolve warnings
- Compile often
- Reach out
- Experiment
- Good commit statements



Timeline

Priorities

1. Starter code
2. Documentation
3. Unit testing
4. LLVM safety
5. Regression testing

Deadlines

Week 2: 2 issues completed

Week 4: 5 issues completed

Teams: Frontend, Backend, Testing

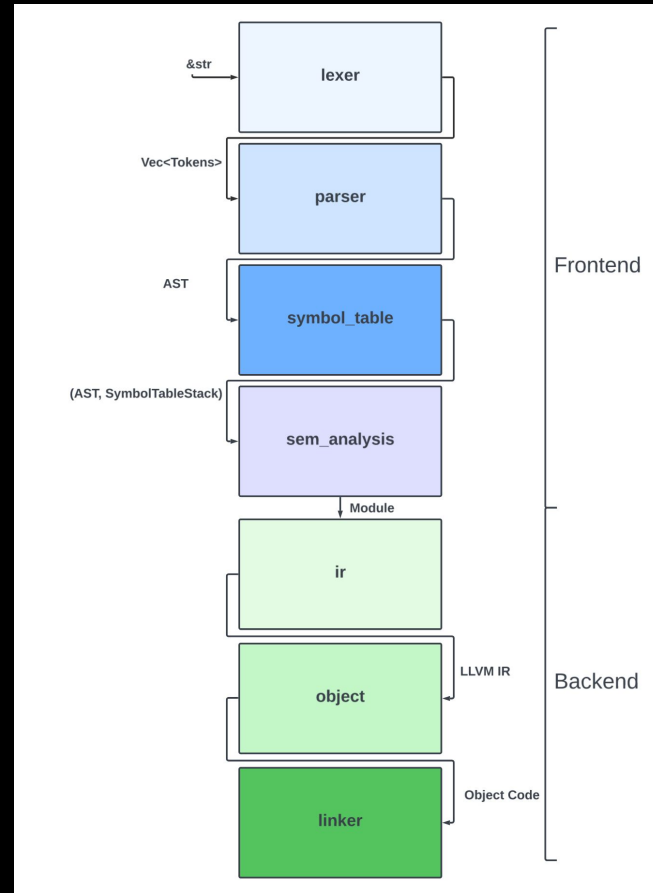
Week 9: Finalized priorities 2, 3

Week 11: Finalized priorities 1, 4, 5



compiler_core

- Entry points, Thread pool executor
- Token
- AST, ASTNode, SyntaxElement
- ErrorType
- SymbolTable, SymbolTableStack
- ModElement, Module
- Rule, RulesConfig
- IR/obj codegen
- ExecutionEngine
- Store
- llvm_lib
- Linker
- Compiler, Runner



compiler_design

- General
 - Templates (docs, projects, issues)
 - Syntax/Idea
 - Resources
 - Red Dragon
 - Programming Languages and their Compilers
 - Stanford seminar
- Backend/Frontend code docs
- Projects



Workflow

- compiler_core branches
 - Primary
 - main, dev, frontend, backend
 - New
 - “(f,b)_<project_name>” or “<issue_name>”
- compiler_design branches
 - Primary
 - main
 - New
 - “<your_name>”
- Projects, Issues, Peer Reviews
 - Issue title: “<Project name> - <Issue name>”



Questions

