ProCSV

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Hello!

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Motivation

- Data processing
  - Our previous experiences
  - Common problem

- Why ProCSV?
  - Streamline process
  - Save some developer time, energy

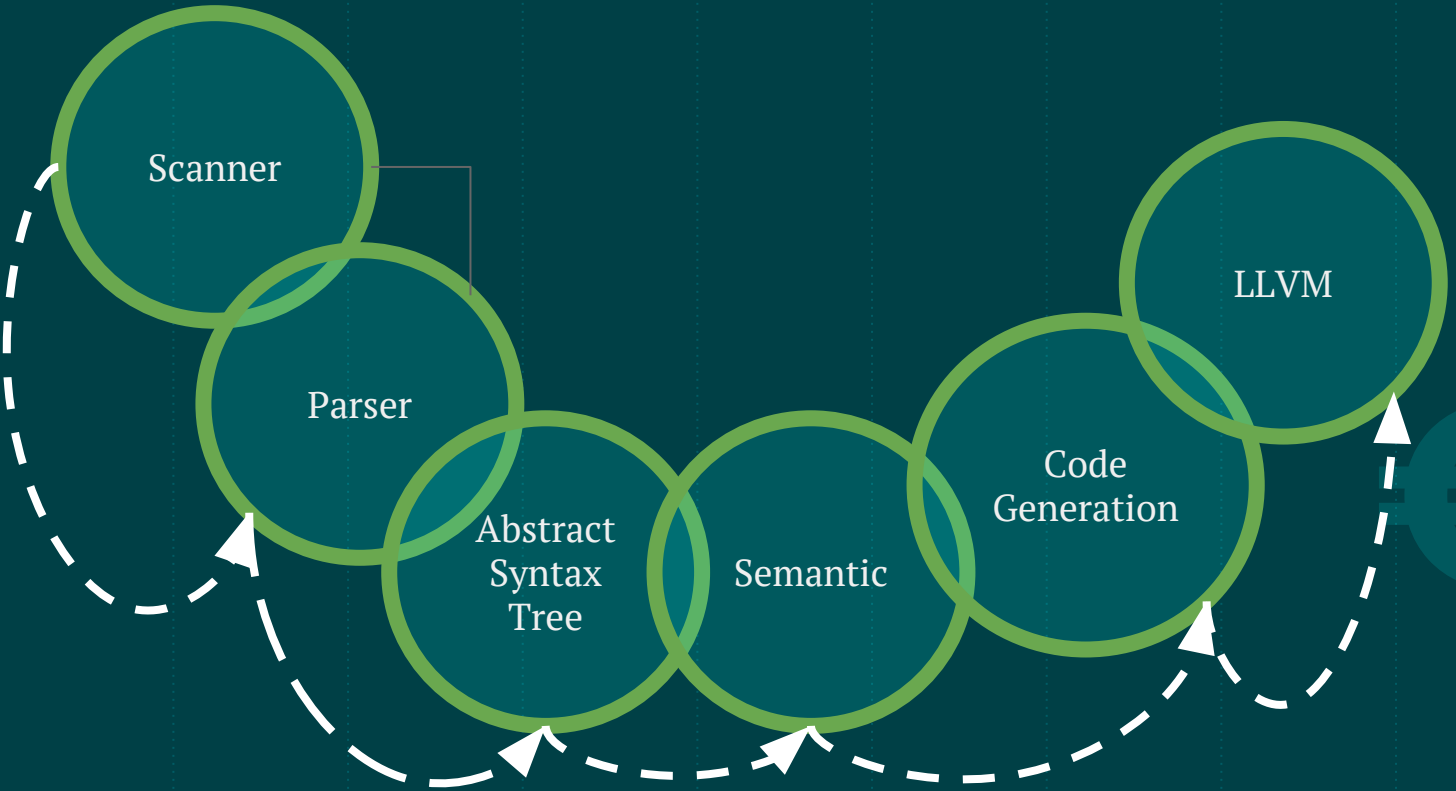
Our Workflow

Our group met every Friday with our TA, Justin Wong, and worked throughout Friday afternoon and evening. In addition, our group also worked every Saturday morning.

Overview

- Built on top of Micro-C with C and Java-like syntax
- ProCSV is statically typed
- Consists of built-in functions that allow for easy parsing, comparing, searching, and reading.

The Architecture



Data Types

Primitives

- int
- float
- bool

Non- Primitive

- string

Declarations

Simple:

```
int a;
```

Local:

```
void main(){
    float c;
    c = 2.0;
}
```

Global:

```
int b;
int main(){
    b = 42;
}
```

Operators

- +, -, *, /, % - arithmetic integer operators
- ==, <, >, <=, >= - numerical operators
- ||, &&, ! - logical operators
- = - assignment operator
- ++, -- - increment, decrement operators

Built-In Functions

- ★ print_string()
- ★ print_float()
- ★ read_csv()
- ★ parse()
- ★ find()
- ★ sim()

Test Suite

- Added tests on top of microc suite
- Passing & failing cases for each feature
- Automated via bash shell script, testall.sh

Project Timeline

1. Set up own work environment
2. Started from scratch while referencing previous codebases
3. Started to set up own test suite
   a. ran into issues with codebase
4. Once microc available, started building on top of microc
   a. Mod working all across
5. print_string(“hello world”) working
6. float, increment, decrement working
7. parse(), read_csv() functions working
8. find(), sim() functions working
9. demo code implemented
10. Final report

The Lessons We Learned

- We learned the importance of working in vertical slices
- The need for a clean repository
- Importance of understanding the entire codebase
- Staying on track with a schedule

Demo

Thanks!

Questions?