

## Objectives

- SLogo Design
  - Parsing commands

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## Review

- How is a programming language processed?

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## More Sophisticated Example

- `jelan.elan.*`
  - Breaks classes into appropriate packages: Tokens, Expressions, Instructions, Parsers
- `jelan.elan.instruction`
  - Represent instructions
  - `evaluate` method
  - Check out `Print` class
- `jelan.elan.parser`
  - Parse Tokens to create Instructions
  - Check out `PrintParser` class

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## More Sophisticated Example

- `jelan.elan.*`
- Mapping between Token, Instruction, Parser, `instructions.prop`
  - Knows which Parser to call based on `instructions.prop` and mapping from Token to Parser
- Run `ElanParser` with tests/`assign_repeat`

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## Comparing ElanParsers

- `StreamTokenizers`
- `parse()` method
- `nextToken()` method

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## Practice Adding Instructions

- Create a token for instruction (probably a subclass of `token.ReservedToken`)
  - Same prefix as new instruction, e.g., `IfToken.java`
- Create a parser for the instruction with same prefix as instruction, e.g., `IfParser.java`
  - Parsing class (presumably implementing `Parser`) returns an instance of parsed `Instruction`
- Create an instruction with prefix name, e.g., `If.java`
- Add instruction name to file `instructions.prop`, e.g., add a single line to file containing string `If`

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What Do You Think You'll Need To Do  
About Commands/Instructions?

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