

# Parsing overview

# what is a parser?

- A parser has two jobs:
  - Determine if a program (sequence of tokens) is **valid** (think: is a sentence grammatically correct?)
  - Determine the **structure** of a program (think: diagramming a sentence)

# agenda for this module

- How do we define a language?
  - How do we define the set of strings that are grammatically correct?
  - Context free grammars
- How do we recognize strings in a language?
  - How can we (easily) tell if a program is grammatically correct?
  - How can we determine the structure of a program?
  - Recursive descent parsers and parser generators

next: context-free grammars

Or: why aren't regexes enough?