Original Question: How to parse Python?
OCaml?
C?
⋮
OCaml

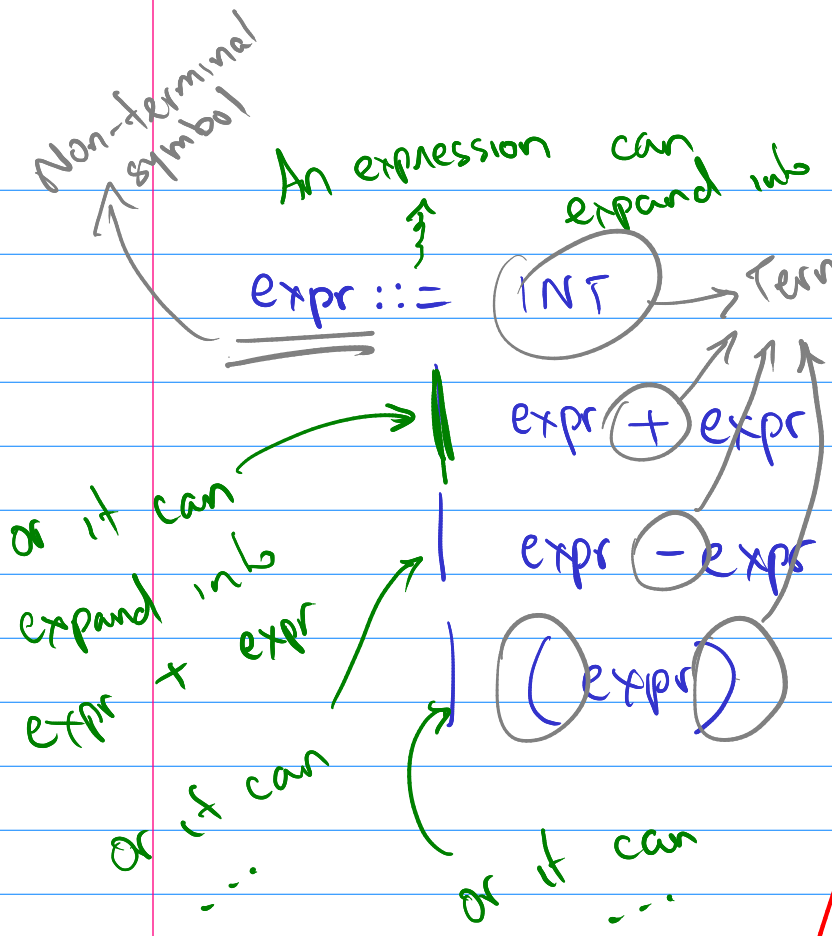
Q1: What do well-formed ~~Python~~ programs look like? ← Context-free grammar

Policy

Q2: Okay. Now how do we check whether the user has given us a legal Python program?

Algorithm

Context Free Grammar for the calculator.



(1) These are all legal expressions

(2) There are no other legal expressions

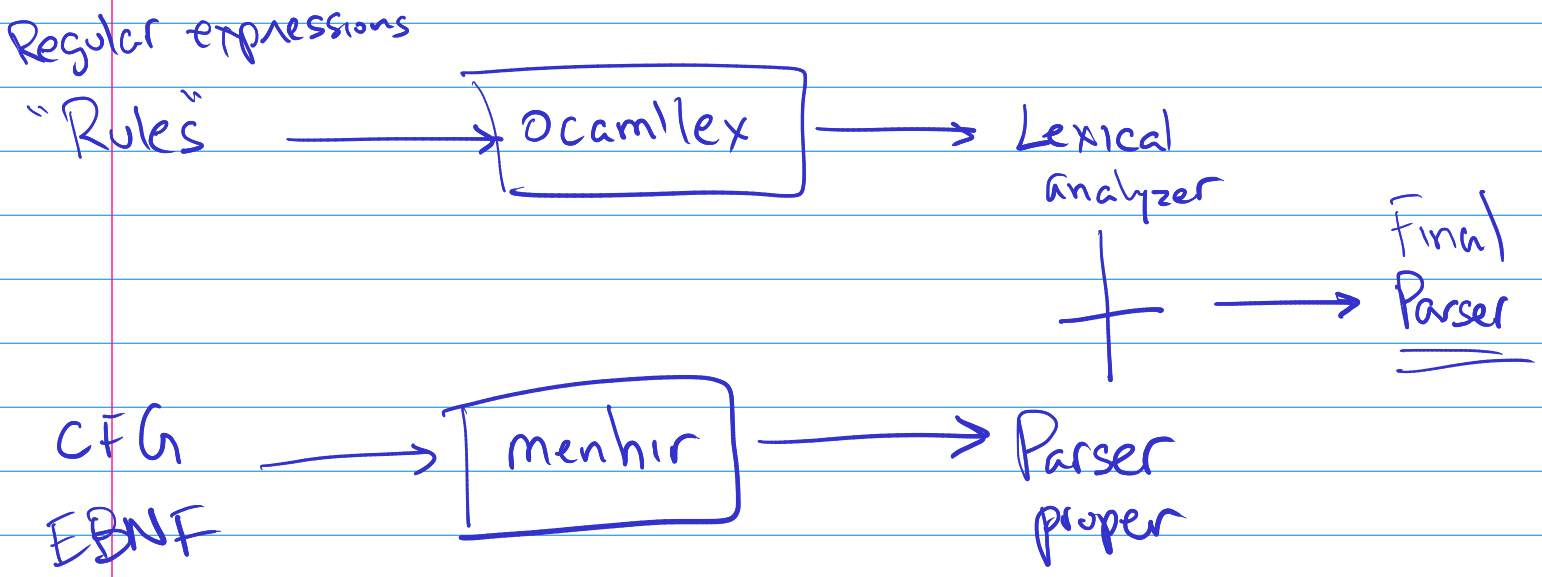
Philosophically: I am showing you not how to parse, but rather, how to produce.

In other words: A string (char list / sequence of chars / contents of a file)

is a "well-formed expression" if it can be produced by that grammar.

expr ::= INT ← This is a "production rule".

expr ::= expr + expr ← This is also a production rule.



OCaml	Calculator language
Meta language	Object language
Language that compiler is written in	Language being compiled.