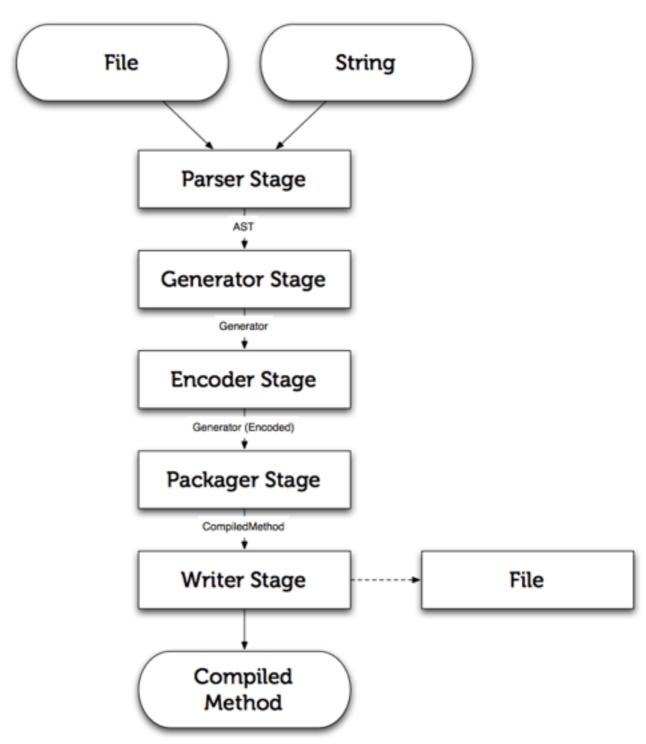
Lexical Analysis

(analysis of a simple programming language called "natasha"

Anatomy of a compiler



What is natasha?

- A simple programming language for doing basic arithmetic operations
- Written because I wanted to learn more about how compilers worked and also get a deeper understanding of how source code moves plain text to actual applications
- All "natasha" programs end with ".natasha"

Tokenization

```
; This is a comment

int a = 20

int b = a + 33

if a == b

a = a - 33; this also another comment

else

b = a
```

lexer

int a = 20 int b = a + 33 if a == b

Delails of the Lexer

- ø File extension is checked ".natasha"
- No processing is done if it is not a valid ".natasha" file
- o heavily based on RegEx
- Unknown patterns causes compilation
 error

Demo Time