

Interpreter Pattern

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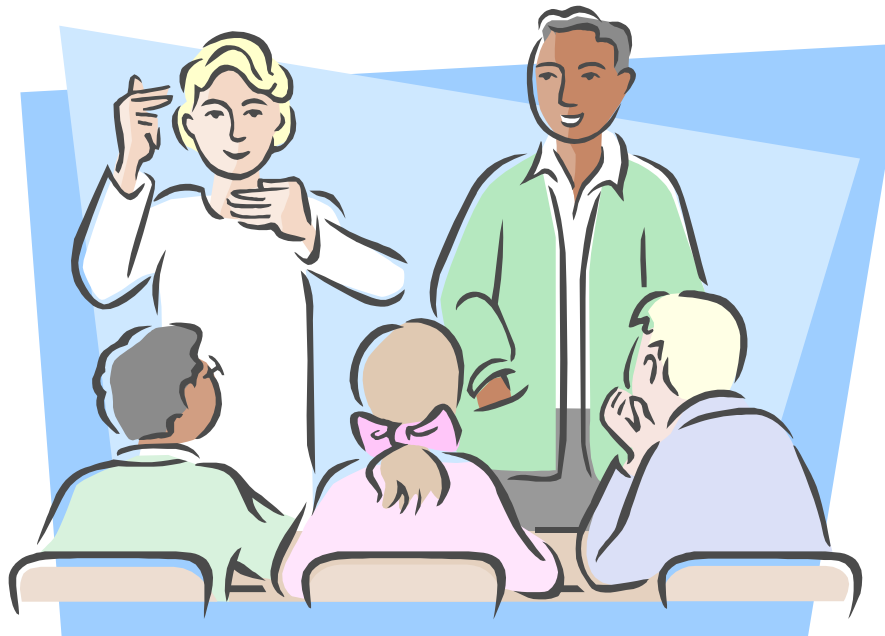
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Breaking it Down

- **Given a language, define a representation for its grammar along with an interpreter that uses the representation to interpret sentences in the language. (GOF)**

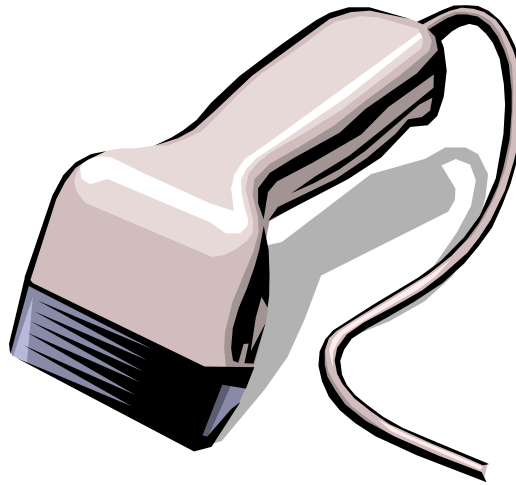


Barcodes

Quiet Zone	Start	Left Numerical Digits										Middle	Right Numerical Digits										End	Quiet Zone
		0	1	2	3	4	5	6	7	8	9		0	1	2	3	4	5	6	7	8	9		
																								

How Bar Codes Work

- **<UPC> ::= <Manufacturer ID> <Item Number> <Check Digit>**
- **<Manufacturer ID> ::=**
<Digit> <Digit> <Digit> <Digit> <Digit> <Digit>
- **<Item Number> ::= <Digit> <Digit> <Digit> <Digit> <Digit>**
- **<Check Digit> ::= <Digit>**
- **<Digit> ::= 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9**



Challenge!

- **Make a barcode interpreter**

- Given a manufacturer id
- Given a product code
- Create a barcode with a check digit

- **Check digit and other info:**

- http://en.wikipedia.org/wiki/Universal_Product_Code



Formal Definition

