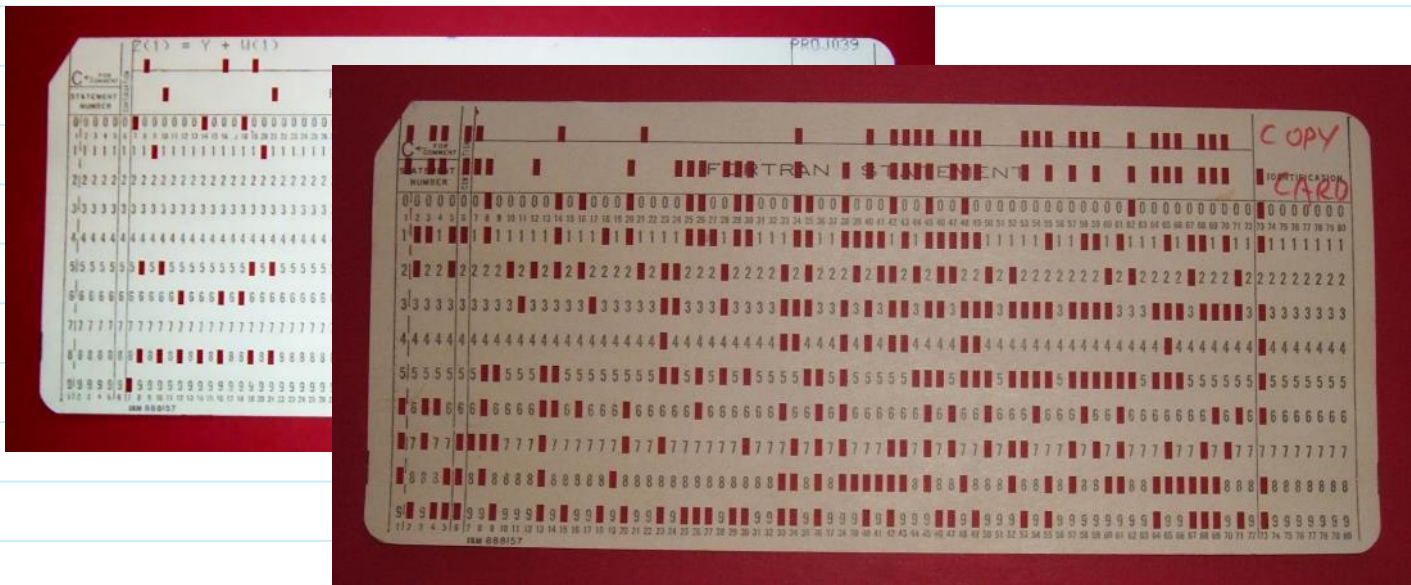


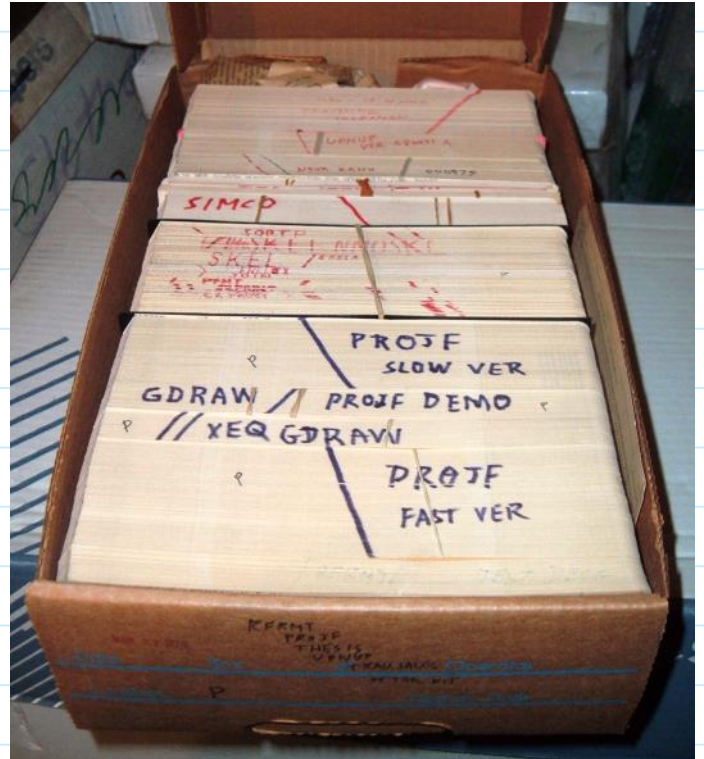
1 Historical Perspective

Monday, January 27, 2025 11:53 AM

- Why Programming Languages ?

"In the beginning, Machines where big Problems small"





Binary code.

```

01010100 01101000 01101001 01110011
00100000 01101001 01110011 00100000
01110100 01101000 01100101 00100000
01110100 01110101 01110100 01101111
01110010 01101001 01100001 01101100
00100000 01110100 01101111 00100000
01101100 01100101 01100001 01110010
01101110 00100000 01100010 01101001
01101110 01100001 01110010 01111001
00101110 00100000 01001001 00100000
01101000 01101111 01110000 01100101
00100000 01111001 01101111 01110101
00100000 01100101 01101110 01101010
01101111 01111001 00100000 01101001
01110100 00100001

```

```

Add x y
Mult x y
div x y
sub x y

```

Load x address

store x address

• Programming Languages

• '53 John Backus IBM

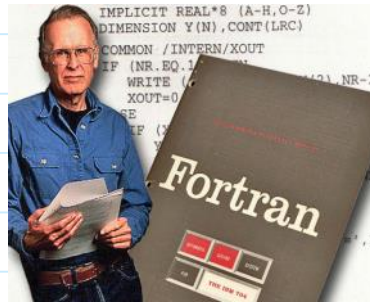
"Make programmers more productive"

"Eliminate Bugs"

"It will take 6 Months"

'59 **FORTRAN**

FORMula TRANslator.



'60 **Algol-60**

Formal Description
in Backus-Naur Form.

ii Recursion!!

- COBOL

- PL/1

- Algol-68

- Templates
- List comprehension
- Fancy For loops

- LISP

by John McCarthy

• 70's

- BCPL

- B

- C by Kernighan & Ritchie. **UNIX**

- Pascal by N. Wirth

first personal computers.

- BASIC

- LOGO

- PROLOG by Colmenaur & Russell



• '79 Simula

▷ Object Oriented Programming

Object Oriented Programming

Alan key.- SmallTalk.

• '80

Pascal → Object Pascal → Delphi
- Modula

C → Objective C → MacOS

- C with Objects
- C++ by Stroustrup

- Eiffel

- Perl by Larry Wall

• 90's

- The PC's are everywhere....

- Visual Basic

- The internet!! '96

- "HTML"

- Java - virtual Machine.

- Javascript. Brendan Eich.

- PHP

- Python guido van rossum.

• 2000's

- Python ★

"The Y2k bug"

Cobol & Fortran

still alive!!

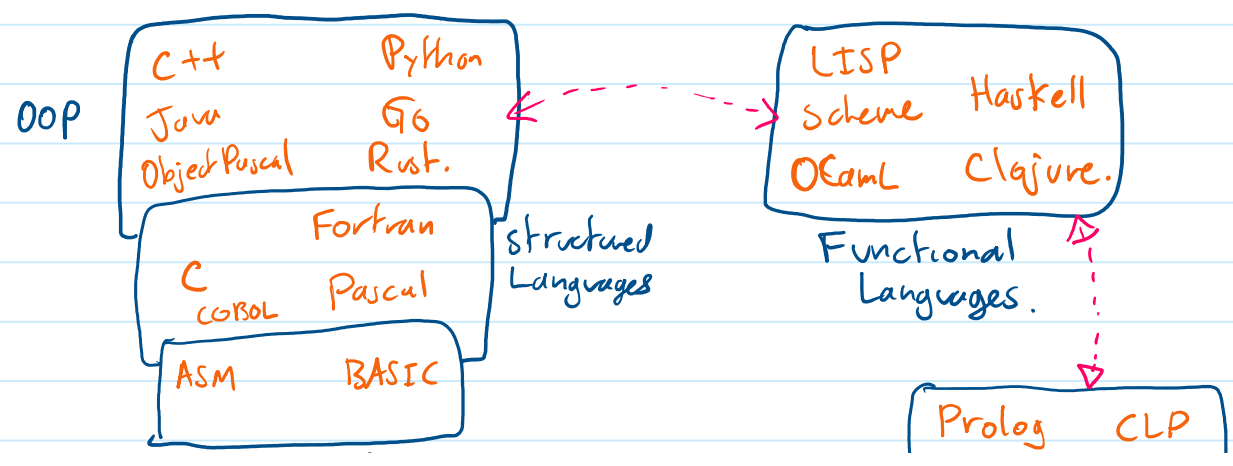
New trend : improving over older languages:

- New trend : improving over older Languages:
- A better Objective-C
 - Swift
 - A better Java
 - Scala
 - Kotlin
 - J++ - C#
 - A better C++
 - D
 - Go
 - Rust
 - A better JavaScript
 - Dart
 - TypeScript
 - Web Assembly.

• 2020's
the future?

<https://www.tiobe.com/tiobe-index/>

• Language Taxonomy



ASM BASIC
Unstructured
Languages

Prolog CLP
Mercury
Logical
Languages

—○— EOF