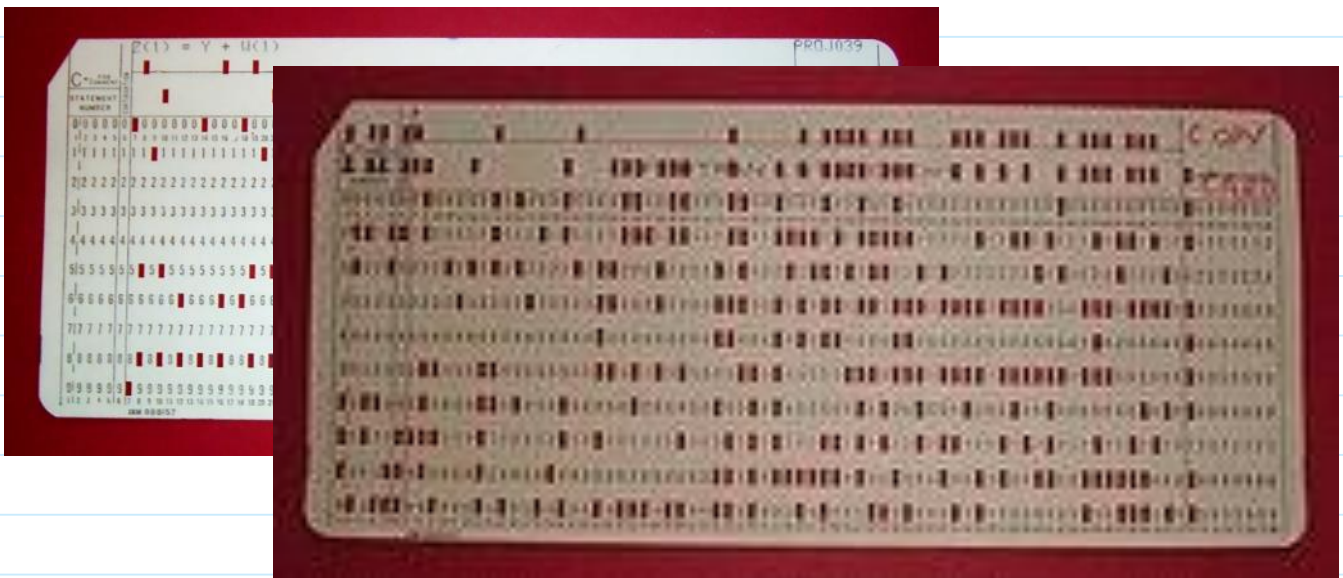


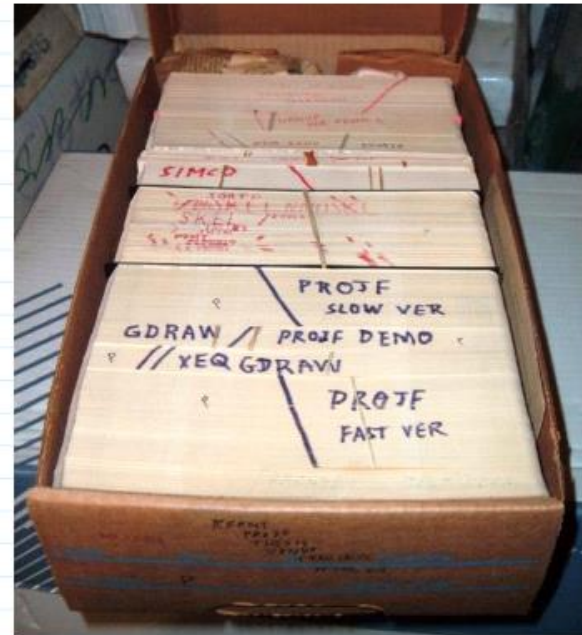
1 Historical Perspective

Wednesday, August 21, 2024 11:57 AM

- Why Programming Languages ?

In the beginning, Machines were big
Problems small:





Binary Code:

```

- 01010100 01101000 01101001 01110011 ← "LOAD" 31 127
- 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
  
```

● '53 John Backus at IBM.

"Make programmes more productive"

"Eliminate Bugs"

"It will take 6 months"

"Eliminate Bugs"
"It will take 6 months"

'59 FORTRAN



'60 Algol-60 Formal Description
in Backus Naur Form

ii Recursion !!

- COBOL :

- PL/1

- Algol-68

- LISP
by McCarthy

• 70's

- BCPL

- B

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

- Pascal by N. Wirth.

first personal computers

- BASIC

- LOGO

- Prolog
Colmerauer, Roussel.

▷ Object Oriented Programming

'79 Simula.

• Object oriented programming

'79 Simula.

Alan Kay. - Smalltalk.

• '80

- Object Pascal → Delphi

- Modula-2

- Objective C → MacOS

- C with objects

- C++ Stroustrup.

- Eiffel

- Perl Larry Wall

• 90's

• The PC is everywhere.

- Visual Basic.

• The internet.

- (HTML)

- Java - Virtual Machine

- Javascript Brendan Eich.

- PHP

- Python.

• 2000

- Python ★

New trend: improving over older languages

- Swift Apple

- A better Java than Java

- Kotlin

- Scala

- C#* - J++

- A better C++ than C++

- D

- Go

- Rust

- A better Javascript than Javascript

- Dart

- TypeScript.

- WebAssembly.

• 2020's

the future ??

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

• Language Taxonomy

