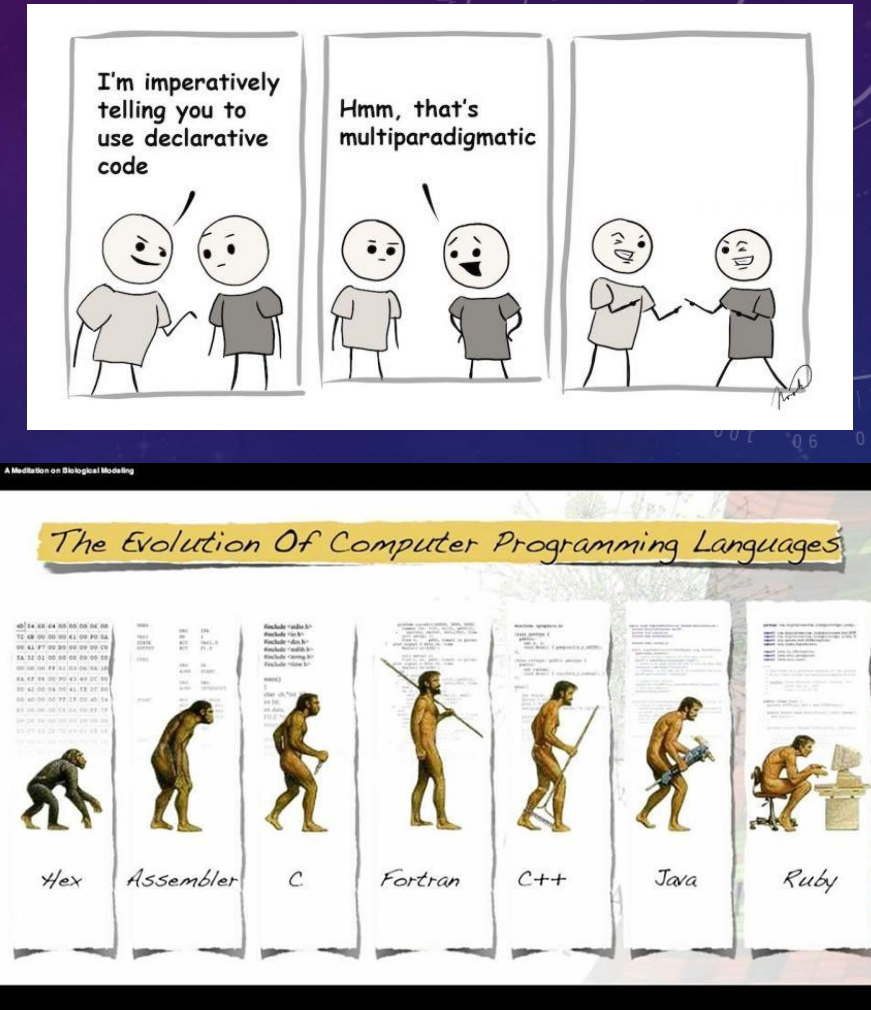
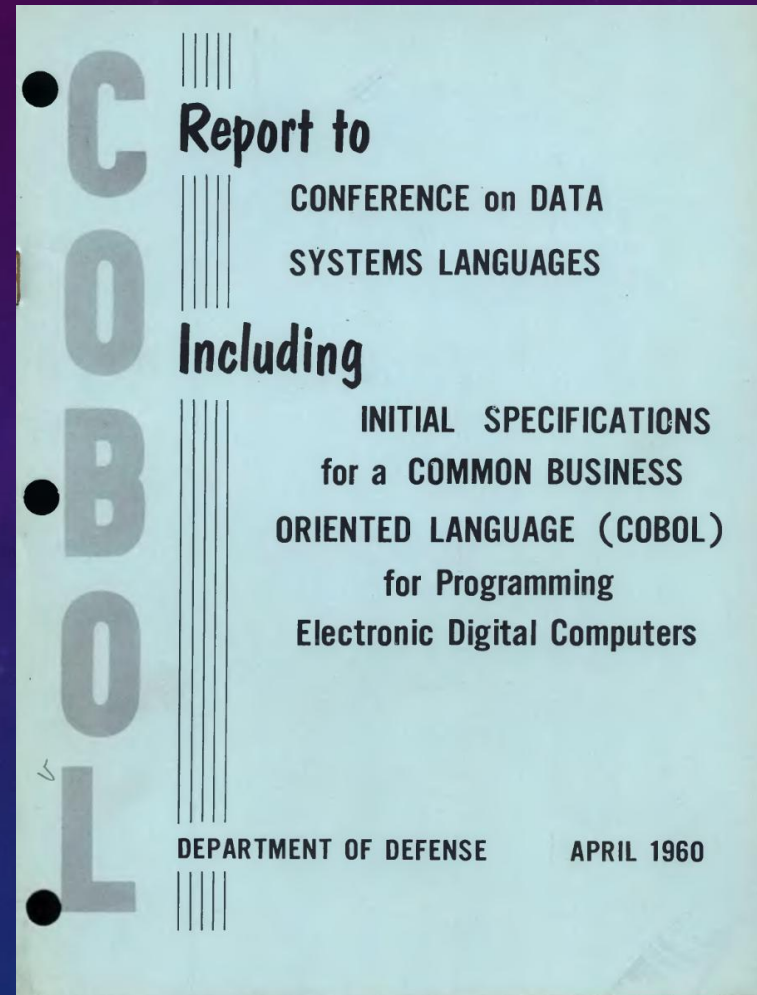
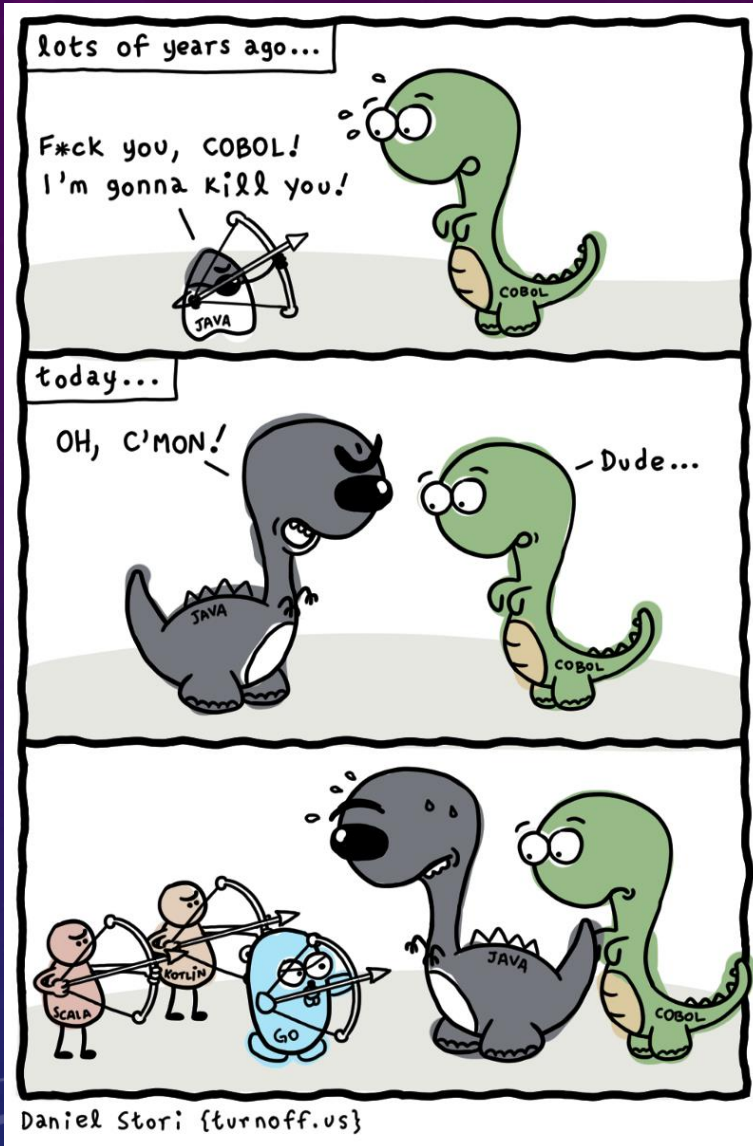


PROGRAMMING PARADIGMS

EDISON LASCANO

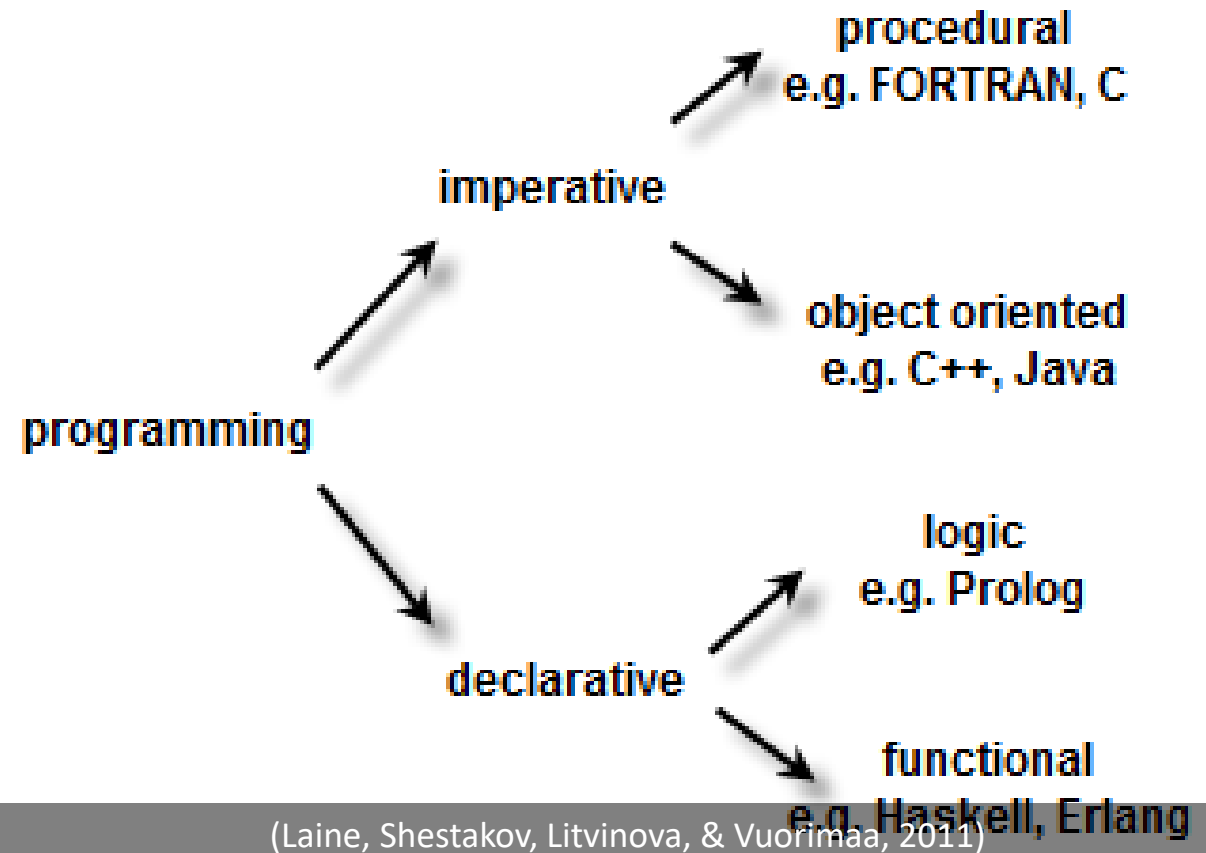
ESPE





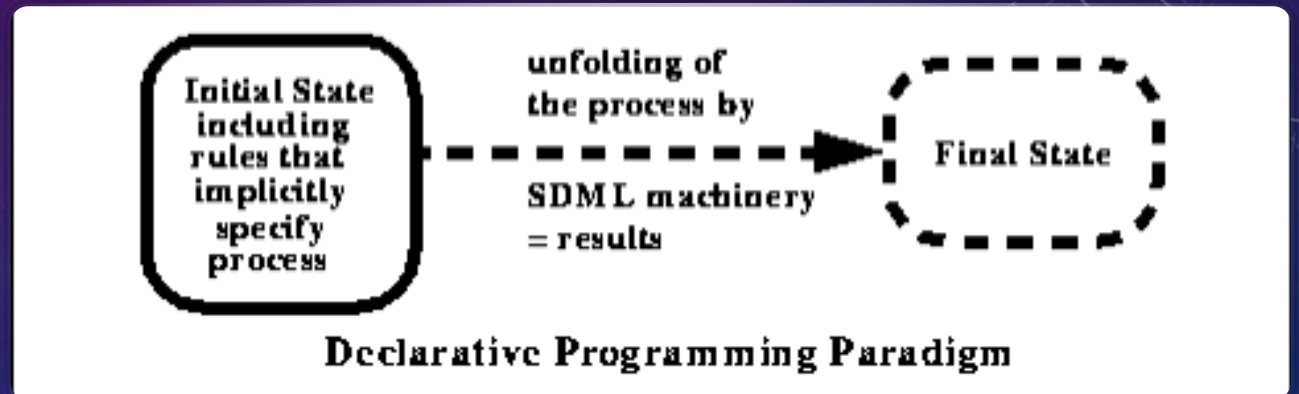
PROGRAMMING PARADIGM (SCHOOLS OF THOUGHT)

- Abstraction mechanism intended to simplify the design of software. (Simmonds, 2012)
- Accepted form to solve a problem by using a computer. (Instituto tecnológico de Celaya)



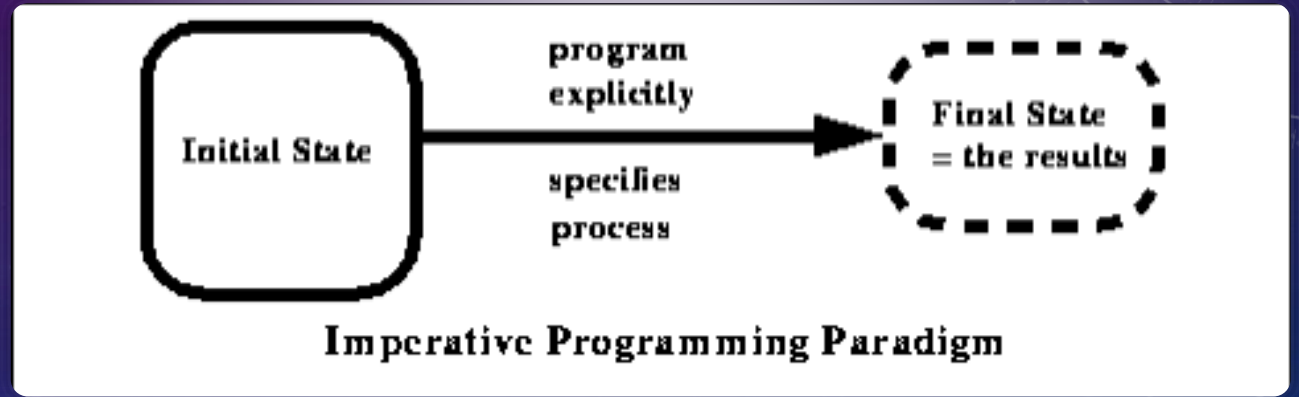
DECLARATIVE PROGRAMMING

- It deals with and details “what” a program has to do, instead of “how” the program does it
- It does not handle state*



IMPERATIVE PROGRAMMING

- It describes how a program gets results
- It is based on the execution of commands or instructions that modify the state of a program



IMPERATIVE PROGRAMMING

- **States:** Represented by variables
- **Sequential Order:** It represents the use of sequential CPU
- **Assignments:** Pass of information between CPU and memory

Every instruction is designed to mutate states/variables, through assignments, in an ordered manner

(Tošić, Milena Vujošević, 2008)

DECLARATIVE VERSUS IMPERATIVE

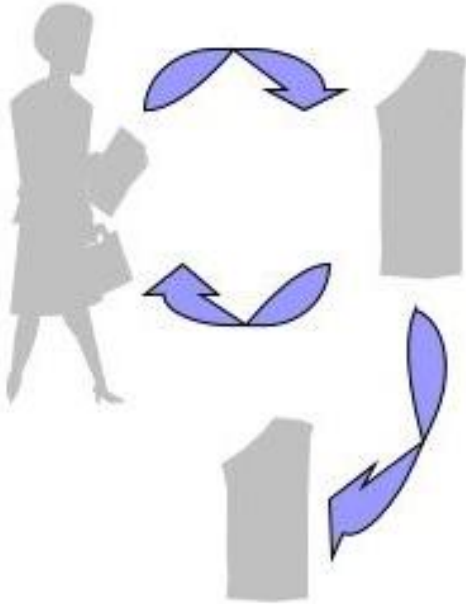


MANY
IMPERATIVE
OPTIONS: OOP,
PP



Procedural vs. Object-Oriented

■ Procedural



Withdraw, deposit, transfer

■ Object Oriented



Customer, money, account

PROCEDURAL
PROGRAMMING (KNOWN
BEFORE AS STRUCTURED
PROGRAMMING)

- Procedures as “first class citizens”
- Organization of functions as modules
- Respect for the sequence of a program

WHAT'S NEXT?

OBJECT ORIENTED
PARADIGM...

