INFORMATION PROCESSING LANGUAGE

programming language created at RAND corporation and Corniege institute of technology at about 1956 by:

allen newell: language specifier, application programmen cliff show: system programmer

hebert a simon: application programmer, user

the language includes features intended to help with programe that perform simple problem solving actions such as less, dynamic memory allocation, data types, recursion, functions as arguments, generators, and cooperative multitasking.

IPL invented the concept of list-processing, albeit in an

paradigm: assembly stable release: IPL-VI

OS: cross-platform: JOHNNIAC, IBM 650, IBM 701, IBM 7090

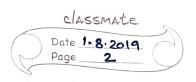
influenced: lisp

· list manipulation: but only lists of atoms, not general lists

• property lists: but only when attached to other lists.

- higher-order functions: except that assembly thanguage programming has always been able to compute with addresses of bunctions to call; IPL was an early attempt to generalize this property of assembly language and in
 - · computation with symbols: except that the symbols are
 - letter + humber, not full words.
 - · virtual machine:

assembly language style.



1PL was the first utilized to demonstrate that the theorems in Principia Mathematica which were laboriously proven by hand, by Bertrand Russell and Alfred North Whitehead, could in fact be proven by computation.

IPL was used to implement several early artificial intelligence programs, also by the same authors: the Logic Theorist (1956), the General Problem Solver (1957), and their computer chess program NSS (1958).

the language was doon displaced by Lisp, which had far more powerful features, a simpler syntax, and the benefit of automatic garbage collection.