

lec 3

ENIAC - Background

Electronic Numerical Integrator and Computer
started 1943 by John Presper & John Mauchly

Finished 1946

Used 1955

ENIAC's Contribution & Significance

Connect specific inputs to outputs with hardwired cables; diff 4 each problem 2 be solved

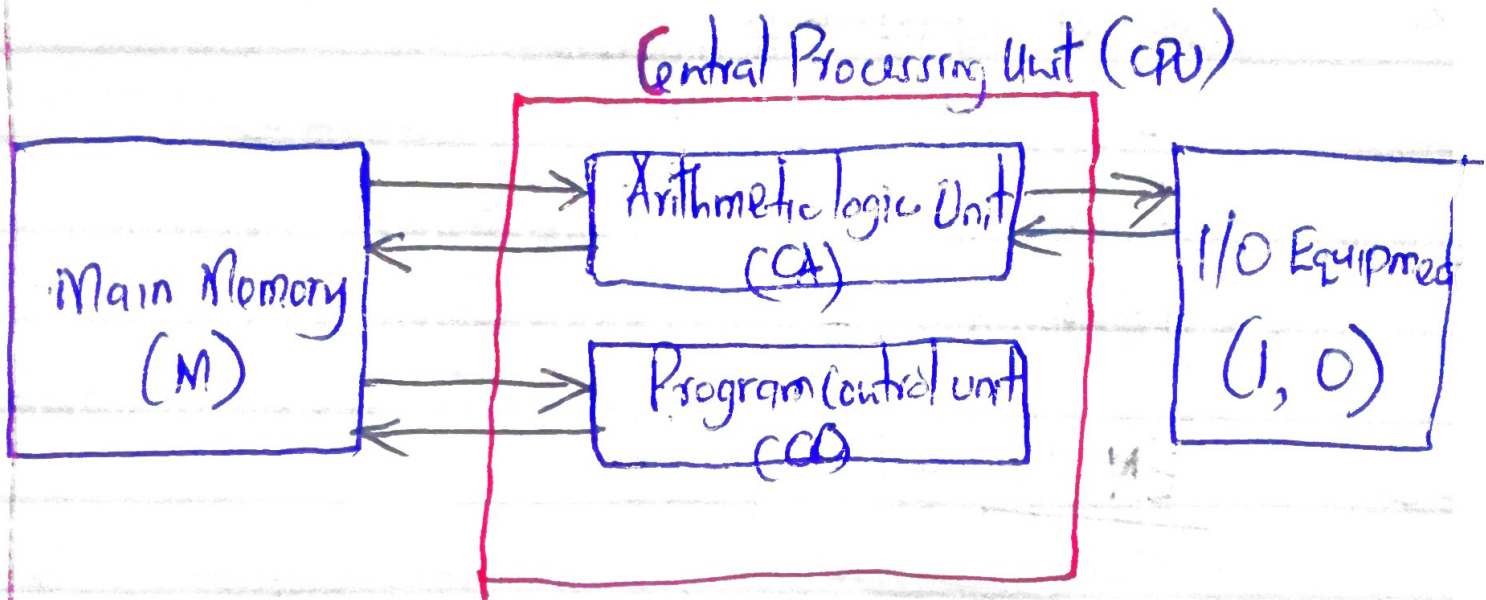
IAS (Von Neumann / Turing) Machine

Stored memory concept

Main memory storing programs and data

ALL operating on binary data

Structure of von Neumann machine



The Control Unit (IAS machine) operates the machine by fetching instructions from memory and executing them one at a time

An accumulator is a register in which intermediate arithmetic and logic results are stored
MQ (Multiplier quotient) register temporary storage

registers whose content can be transferred

Commercial computers

1947 - Eckert Mauchly Computer Corporation

More memory

IBM

Punched-card processing equipment

IBM's 1st stored program computer

did scientific calculations

Used 4 B's applications

Transistors

Replaced vacuum tubes

Smaller

Cheaper

Less heat dissipation

Solid state device

Made from Silicon

Invented 1947 at Bell Labs

William Shockley et al