

Instruction Set Design

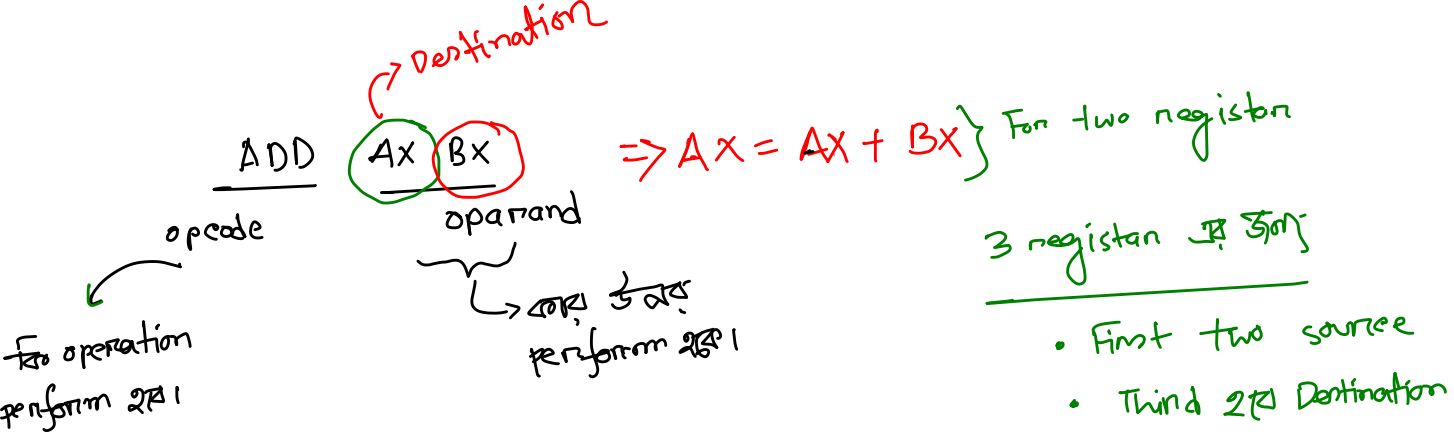
Fixed variable length →

AL - 8 bits
AX - 16 bits
EAX - 32 bits

- Bit fixed to represent a number.
- Simpler and faster decoding
- Fast and effective prefetching of instruction
20000 bits some 2000

variable length instruction:

- use different number of bits
- Can accumulate short and long instruction without waiting time
- prefetching is more difficult also decoding



Number of Data operands

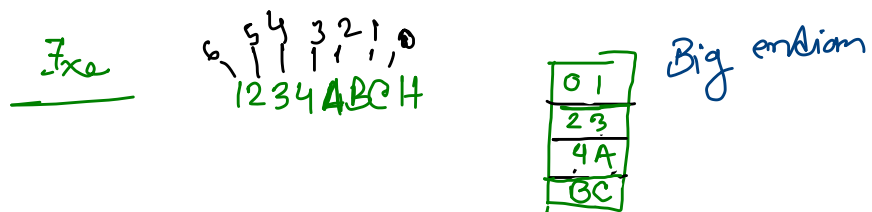
• Zero operand instruction

- data accessed from a stack - pop R_z

- one operand - MOVE ACC R_x / ADD R_y
- Two operand - ADD $R_x R_y$
- Three operand - ADD $R_z R_x R_y$

Endian Mode

- Big endian \rightarrow Left to Right ($L \rightarrow R$)
- little endian \rightarrow Right to Left ($R \rightarrow L$)



ABCDEF = ABCDF0

next address.