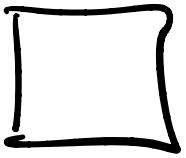
CS 208

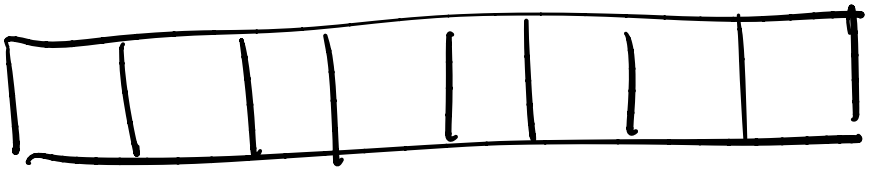
M 8 Jan 2024

Bit: "binary digit"

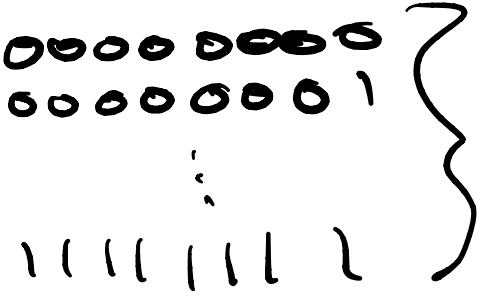
 ← can contain either a zero or a one

All computer data is stored + transmitted as sequences of bits.

Byte = 8 bits

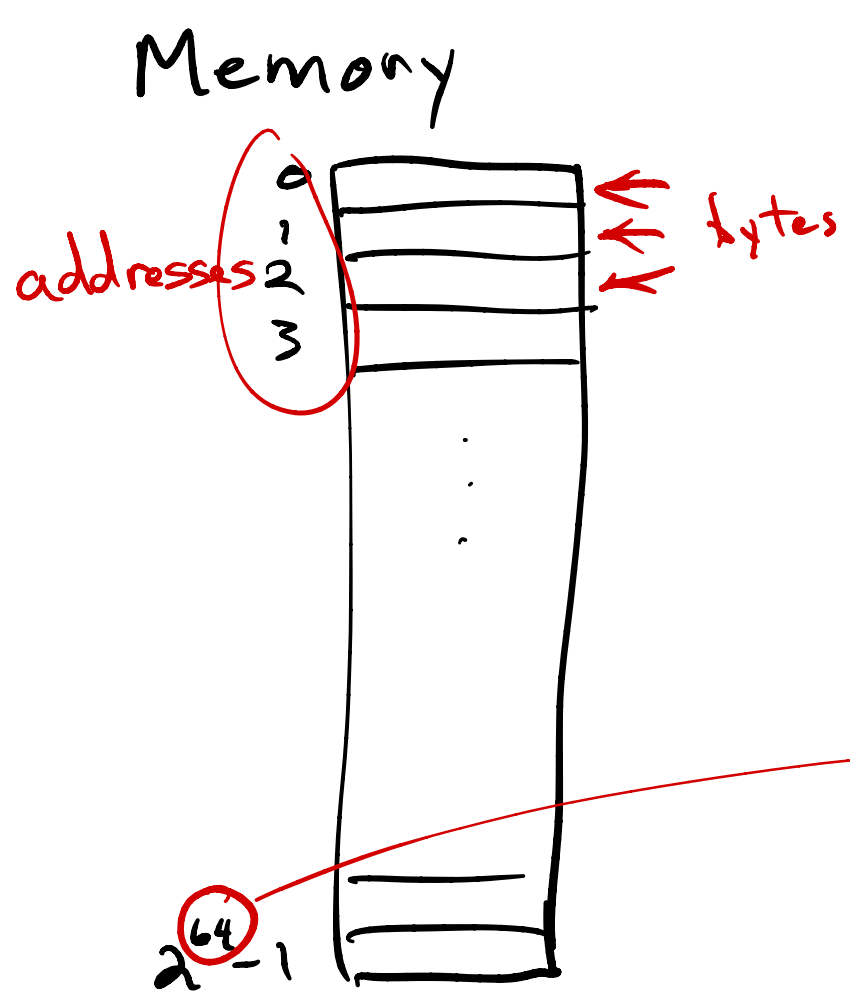


Fred Brooks



$2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2$

$= 2^8 = 256$ states



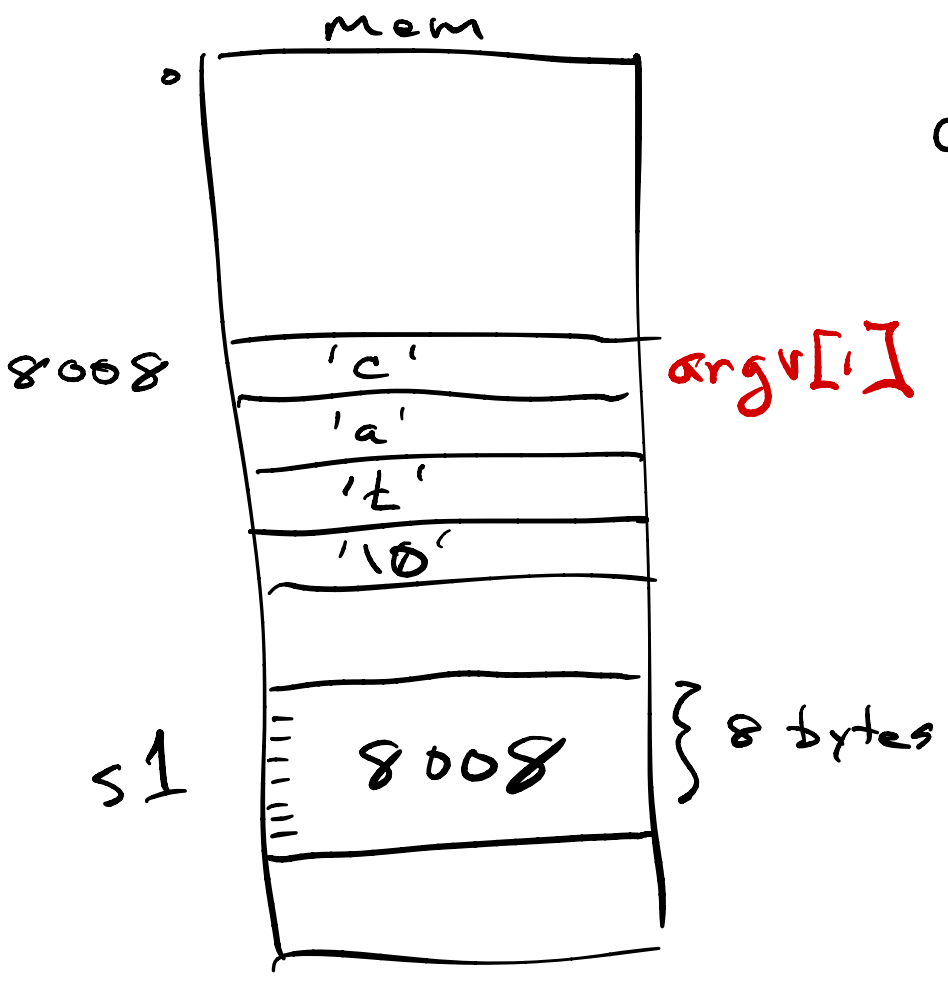
smallest addressable unit is a byte.

We're using "64-bit addressing architecture"

You can store any of 256 concepts in one byte.

e.g. integers $0, 1, \ldots, 255$

characters ... ?? ...



char *s1 = argv[i];

s1 → "cat"