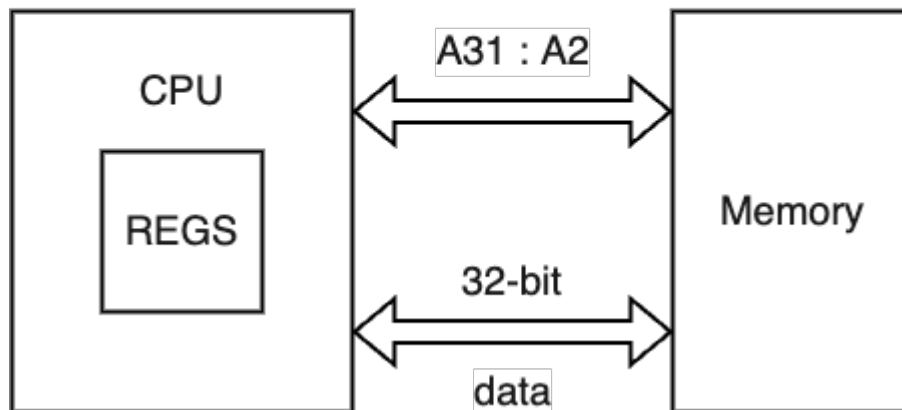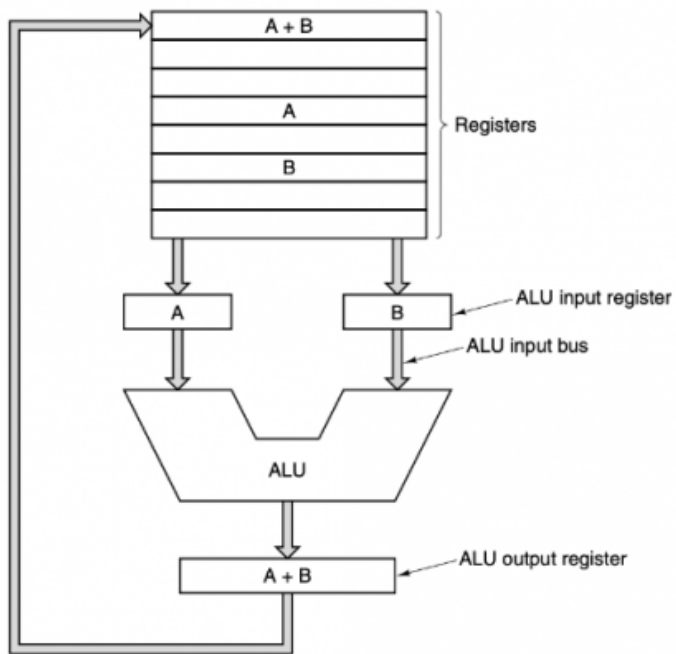# CPU Architecture Basics

Physical layout depiction of a CPU:

LOAD R0, &variable

Note the following:

- CPU (ALU) is only connected to Registers
- Registers are connected to memory
- CPU can process an instruction to add to numbers but this operation can only be applied to registers
  - We cannot apply mathematical operations on the memory itself

```
add r0, r1, r2  # r0 = r1+r2
add C, A, B
```

Registers

- Purpose of Registers