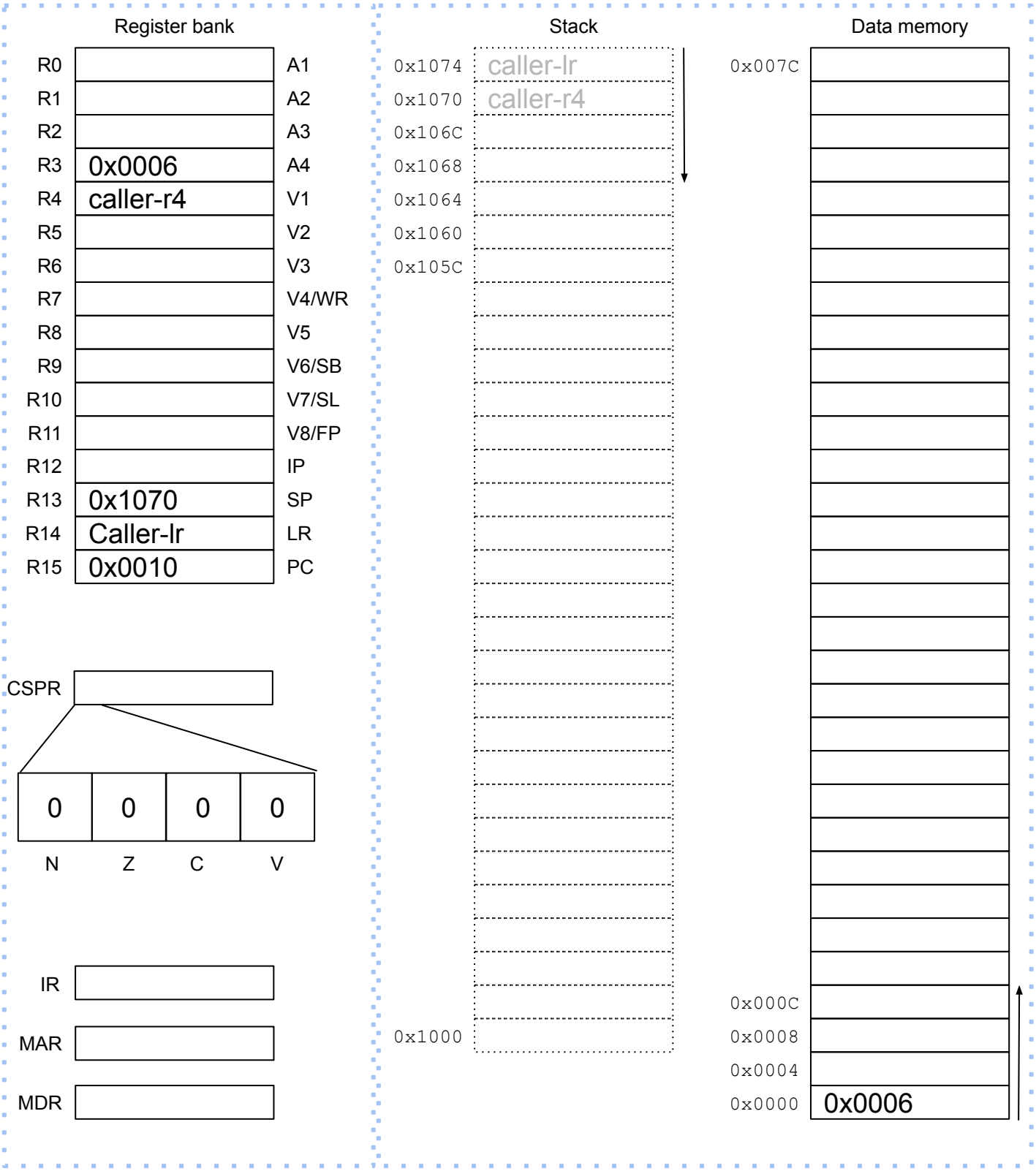
Assembly programmer's model of a computer

(All registers and memory locations are 4 bytes wide)



!-----NOTE: The value stored in the program counter is one higher than the current instruction due to it being incremented in the fetch cycle, the instruction stored at address 0x0010 has not taken effect.