Lec 010

Svadrut Kukunooru

October 5, 2021

Computer memory is a 1-D array of elements each of the same size. Memory location is like an element – it's a place to store a fixed number of bits. Addressability is the size of memory location in bits. This is typically 8 bits, or a byte. The address of a memory location is like an elements' order. It says where to access an element, and uniquely identifies a certain memory location. It is a patter nof bits that is often represented in hex. Address space is the number of uniquely addressable memory locations. Typically starts at 0 and goes to $2^N - 1$ where N is number of bits in the address. Data in a memory location is like an elements' value. It says where the contents are stored, and it's a pattern of bits that is also usually represented in hex. M[address] means contents of memory at the address location. Memory does not know what type of data it is storing.