1. **List the access method on Memory?**
2. **Write notes about "Word" on Memory?**
3. **Write notes about Memory hierarchy**

1:

*** Sequential access**

*** Direct access**

*** Random access**

*** Associative**

2:

• **Word:** The "natural" unit of organization of memory. The size of the word is typically equal to the number of bits used to represent an integer and to the instruction length. Unfortunately, there are many exceptions. For example, the CRAY C90 (an older model CRAY supercomputer) has a 64-bit word length but uses a 46-bit integer representation. The Intel x86 architecture has a wide variety of instruction lengths, expressed as multiples of bytes, and a word size of 32 bits.

3:

The Memory Hierarchy

The design constraints on a computer's memory can be summed up by three questions:

How much? How fast? How expensive?

The question of how much is somewhat open ended. If the capacity is there, applications will likely be developed to use it. The question of how fast is, in a sense, easier to answer. To achieve greatest performance, the memory must be able to keep up with the processor. That is, as the processor is executing instructions, we would not want it to have to pause waiting for instructions or operands. The final question must also be considered. For a practical system, the cost of memory must be reasonable in relationship to other components.

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سيكشن 1