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CA2020 BOOTCAMP- Assignment day 1

Q1. What is Cache Memory?

Ans . It is a temporary storage area in a form of chip which is either integrated directly on the cpu or placed close to it, connected through a bus interconnect. Cache memory is used to increase the read performance of a CPU, as it stores the data or instruction that cpu is going to use in near future. Generally, CPU reads data from main memory before processing, this sometimes creates delay in the process, to avoid this cache memory which is smaller and faster than main memory is integrated near or on CPU. Cache memory stores the chunk of data to make the retrieving process from the computer's memory more efficient. Later CPU interact with this memory to process the same data rather than interacting with the main memory making the process faster as time in accessing the data decreases.

Q2. What is Disk Management?

Ans. It is basically allocating the hard disk space or read only memory space in an Operating system to different drives which can store data of any format. Later CPU uses this data to process various computing operations.

Q3. Cache vs RAM?

* Cache is faster than RAM as it’s hardware uses static memory whereas RAM has dynamic memory.
* Storage size of cache is smaller compared to RAM but, physically both are of same size as the no. of transistors in cache are more to make its processing fast.
* Cache is more expensive than RAM
* To reduce the time delay in transferring the data from memory to cpu, cache memory is placed near or parallel to the CPU which reduces the transmission length time delay.

Q4. HDD vs SSD?

* Hard disk drive(HDD) and Solid state drive (SSD) both are non- volatile storage device for the computer
* HDD is a metal platter covered with magnet coating that stores data whereas SSD has interconnected flash-memory chips to store data
* SSD are much faster and expensive than HDDs, its boot time, launching apps, transferring data are much faster.