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Bootcamp Assignment

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Day 1: Introduction to Computer

Task 01

1. What is Cache Memory?

Answer: Cache Memory is a special high speed memory that is used to speedup and synchronize with a high speed Central Processing Unit (CPU). It is used to reduce the average time to access the data front he Main Memory. It stores copies of the data from frequently used main memory locations

1. What is Disk Management?

Answer: Disk Management is a system utility in Windows that enables the user to perform advanced storage tasks like a. setting up a new drive

b. Extending a volume into space that is not already a part of the

volume in the same drive

c. Shrinking a volume

d.Changing a drive letter

1. Cache vs RAM?

Answer: RAM (Random Access Memory) is a light-hearted memory which is used by the CPU as the Primary Memory of the system. CPU stores frequently used data of the programs running at the moment in RAM as RAM is faster than storage devices. This helps the CPU to work faster.

Cache memory is faster than the RAM but comes with minimal capacity. CPU stores more frequently used data in it so that the CPU can access these data faster.

We can compare some of the differences in the table below:

|  |  |
| --- | --- |
| RAM | CACHE |
| RAM is used to store less redundant data. | Cache Memory is used to save more frequent data. |
| RAM is commonly internal. | Internal and external both can be in Cache memory. |
| CPU reads RAM after expressing Cache Memory. | CPU reads Cache Memory before holding RAM. |

1. HDD vs SSD?

Answer: A hard disk drive (HDD) is a storage device that uses mechanical platters and a moving read/write head to access data. A solid-state drive (SSD) is a newer, faster type of device that stores data on instantly accessible memory chips. Both HDD and SSD have their own advantages and disadvantages. Some of them are discussed below.

1. Speed wise SSD is more favorable than HDD. A PC equipped with SSD will boot in less than a minute whereas a PC equipped with HDD takes longer time to speed up to operating specs.
2. Because of their rotary recording surfaces, hard drives work best with larger files that are laid down in contiguous blocks. But hard drives can become fragmented which affects the performance. But in SSD we don't have a physical read head which means data can be stored anywhere.
3. Price wise SSD are more expensive than harddrive in terms of dollar per gigabyte.