

Classification of Memory

Register = It is a small memory inside the CPU. It consists of numbers of flip-flop arranged in a certain manner.

This is a small capacity memory used in our computer to store data and instruction temporarily during the process. There are number of registers available that is —
MAR, MDR, IR, PC and accumulator

Cache memory This memory is situated between the CPU and main memory.

It is small memory that hold or stores frequently needed data or instruction from main memory location during the process. When the processor

needs to read from or write to a location in main memory, it first checks whether a copy that data in its case. If so, the processor immediately reads from or write to ~~the case~~

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~~immediately reads from the case.~~
This is a semiconductor memory which is having very low access time and fast memory.

Main memory = It is also called a primary memory. It is a memory which store data and instruction during the process of program. This is also a semi-conductor memory in comparison of memory cell to hold binary data. This memory directly interact with the CPU. It is a temporary memory and volatile in nature. Its capacity is less but it is expensive. There are two types of main memory - RAM and ROM

RAM = Random Access Memory. It is volatile in nature. These memory are used for both read and write operation. Due to the material used, there are two types - SRAM and DRAM

ROM = Read Only Memory. It is non-volatile in nature. ROM is mostly used to store small system programs permanently. There are various types of ROM - PROM, EPROM, EEPROM, UVPROM

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Operating system is a system software which acts as interface between the user and the computer system.

Functions of Operating System

(1) Resource management = Operating system manages the various

The operating system have to get which performs the different activities related to the management resources

(2) Process management = An operating system is responsible for managing allocation of processor between different programs using a schedule. The job of the operating system is to keep track of all the active processes and available processor slot, allocates the processor to the various action process

and again take back the processor after the completion of process. That is create child process identical to parent process

(3) Memory management.

It is usually divided into three areas - Hardware, OS, memory with applications. The memory management functions of OS performs, keeping a track of the available memory, allocating the memory to different active processes basing on a certain policy and finally taking back the memory from the processes when they have completed their job.

(4) Input/Output management

The OS keep track of the input and output devices connected to a computer decides a policy basing on which the input & output devices will be assign to different requesting processes physically allocates the devices & release the device after completion of job. The method of assigning input/output devices to the process is often known as spooling.

(5) Information management

It is the major work of the OS. This is the activity which sometimes required direct command or indirect command interaction by the user. That is creating of file and directory.