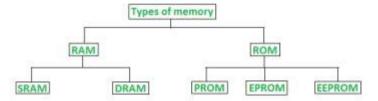
# Memory Unit and Usage.

Memory is the most essential element of a computing system because without it computer can't perform simple tasks. The Memory Unit is of two types which are primary memory and secondary memory.

#### **PRIMARY MEMORY:**

Primary memory, also known as main memory, is the immediate storage used by a computer to hold data that is actively being accessed by the CPU. Both types of memory (RAM and ROM) are important for the computer, but they serve different purposes.



Classification of computer memory

**RAM (Random Access Memory):** RAM is volatile memory that provides temporary storage for data and instructions that the CPU needs to access quickly. The Primary Memory is volatile, that is, the content is lost when the power supply is switched off.



### ROM (Read-Only Memory): ROM is non-volatile

memory that contains pre-programmed data and instructions that are permanently stored during the manufacturing process. It is called "read-only" because the data stored in ROM cannot be modified or erased by normal computer operations.ROM contains firmware or

firmware instructions that are essential for the proper functioning of the computer system, such as the BIOS (Basic Input / Output System).



## **Secondary Memory:**

Secondary memory refers to non-volatile storage that provides long-term storage for data, even when the power is turned off. The secondary memory is used to store the data permanently. It includes various storage devices such as hard disk drives (HDDs), solid-state drives (SSDs), CDs, DVDs, USB flash drives, and more.

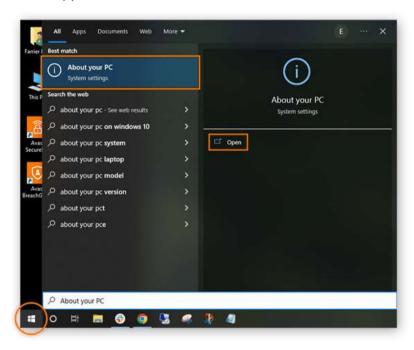
<u>Hard Drives (HDDs and SSDs)</u>: HDDs use rotating magnetic disks to store and retrieve data. They offer large storage capacities at flash memory technology to store and retrieve data. They are faster, more durable, and consume less power compared to HDDs, but are generally more expensive.

<u>CDs, DVDs, and Blu-ray Discs:</u> Optical discs such as CDs, DVDs, and Blu-ray discs are used for storing and distributing data, software, music, movies, and other media. They are read-only or can be written once (write-once) or rewritten multiple times (rewritable) using compatible disc drives.

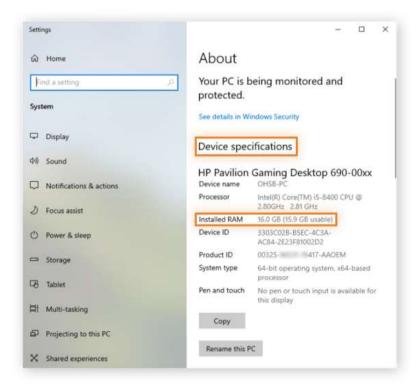
<u>USB Flash Drives:</u> USB flash drives, also known as thumb drives or pen drives, are portable storage devices that use flash memory to store and transfer data. They connect to computers via USB ports and offer a convenient and portable way to store and transfer files.

### **How to Check RAM Size on Windows 10**

Open the Windows Start menu, start typing **About your PC**, and click the option to open it when it appears.



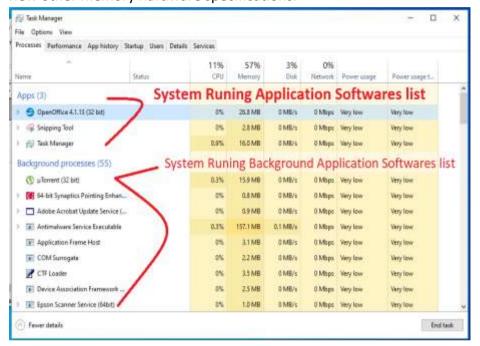
In the Device Specifications section, your total RAM capacity is displayed next to Installed RAM.



#### How to check RAM usage on Windows 10

Once you know how to check how much total RAM your computer has, it's important to know how to find out how much RAM your computer is currently using. Here's how to check RAM speed, RAM availability, and other memory usage statistics:

- Press Ctrl + Shift + delete to launch Task Manager.
- Select the Performance tab and click Memory in the left panel.
- The Memory window lets you see your current RAM usage, check RAM speed, and view other memory hardware specifications.



Open the Processes tab to see which tasks are consuming the most RAM. To reduce current RAM usage, you can force-quit any task currently in operation by right-clicking the individual process and selecting End Task.

