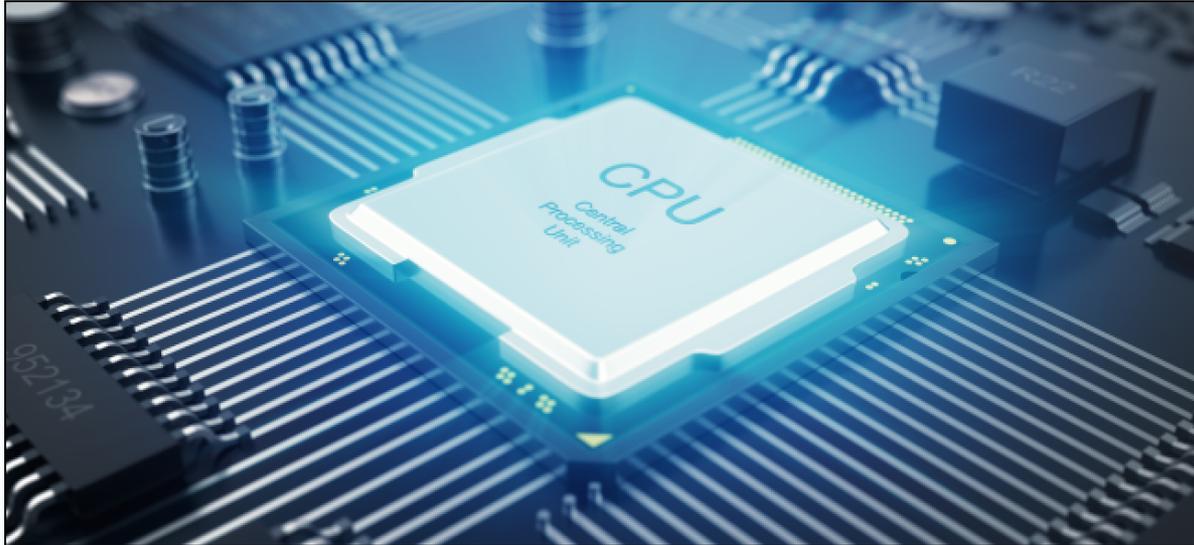


# Computer Honor

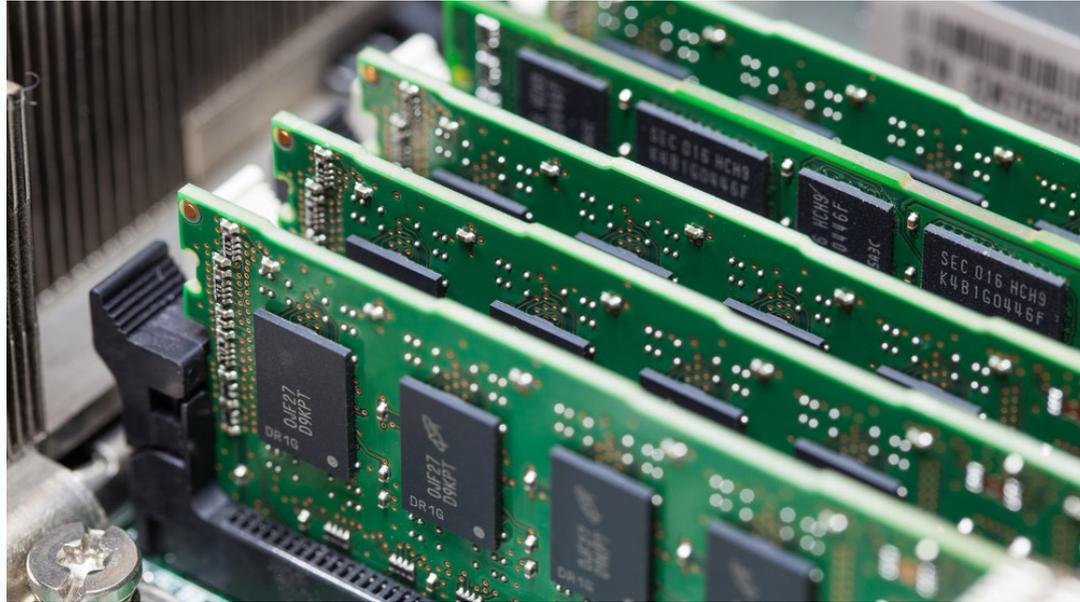


# CPU/Processor



**CPU stands for Central Processing Unit, but it's usually called "the Processor". The CPU is the brain of the computer where most of the calculations take place. The CPU is the most important part of a Computer System.**

# Memory (RAM)



**RAM (Random Access Memory) is the hardware in a computer where the operating system (OS), applications, programs and data currently in use are kept so they can be quickly reached by the device's processor.**

# Mother Board



**A motherboard is one of the most important parts of a computer system. It holds together many of the other parts of a computer, including the CPU, memory and connectors for input and output devices.**

# Hard Drive



**The Hard Drive of a computer is what stores all the software installed on a computer, as well as all the data files created and used by this software. The most important feature of a hard drive is how much data the hard drive can store, (storage capacity).**

# External Drive



**External drives are portable storage devices used to store data like photos, videos, and documents.**

# Internal Drive



**Internal Drives sit inside the computer and store all the software installed on a computer, as well as all the data files created and used by this software.**

# USB



**USB (Universal Serial Bus) is a type of computer Port, which can be used to connect equipment to a computer.**

# Optical Drive



**An optical drive is a computer part that allows users to read/write DVDs, CDs and Blu-ray discs using a laser.**

# Input Devices



**An input device is any hardware device that sends data to a computer, allowing you to interact with and/or control it.**

# Monitor



**A monitor is an electronic device that shows pictures/images for computers. Monitors often look similar to televisions.**

# Keyboard



**A keyboard is an input device used to enter characters and functions into the computer system by pressing buttons, or keys.**

# Printer



**A printer is a device that takes texts and images from a computer and transfers the information to paper, usually to standard size sheets of paper.**

# Mouse



**A mouse is a device that controls the movement of the cursor, pointer or arrow on a display screen.**

# Network Card



**A Network card is an electronic device that connects a computer to a network, usually for internet access. The Network card can sometimes be used to connect to wireless networks (Wi-Fi) as well.**

# Digital Camera



**A digital camera is a camera that stores pictures in electronic memory instead of film. Because of this, it can hold many more pictures than a traditional film camera.**

# Scanner



**A scanner is a device that captures images from physical photographic prints, posters, documents, and similar sources for computer editing and display.**

# Optical Media



**Optical media refers to discs that are read by a laser. This includes CD-ROMs, DVD-ROMs, and all the variations of the two formats -- CD-R, CD-RW, DVD-R, DVD+R, Blu-ray, and many others.**

# How to properly Handle Optical Media

- **Hold the discs on the outer edge or through the center hole only to avoid fingerprints on the bottom of the disc.**
- **Avoid flexing the discs when removing them from a player or recorder or a storage case. Flexing will distort the disc's flat design and can even damage the inner recording and mirror layers.**
- **Do not put a lot of pressure on the center hub when inserting the disc in its case. The center hub area is very fragile. A crack in the hub area can lead to shattering of the disc in a high-speed drive.**
- **Pick discs straight up from a flat surface; do not slide them.**

# How to properly Store Optical Media

- **Keep discs out of direct sunlight and with limited exposure to light in general.**
- **Keep discs in a cool, dry environment. What is most comfortable for humans is most comfortable for discs, too.**
- **Keep the discs away from large swings in temperature and humidity.**
- **Keep discs in protective cases when they are not being used for protection against contaminants, light, or accidental scratches.**

# Differences between read-only, write once, and write-rewrite media

## **Read-only**

Read-only media is prepared at the factory and cannot be altered by the consumer. The most prevalent examples of read-only memory today are the CD-ROM and the DVD.

## **Write-once**

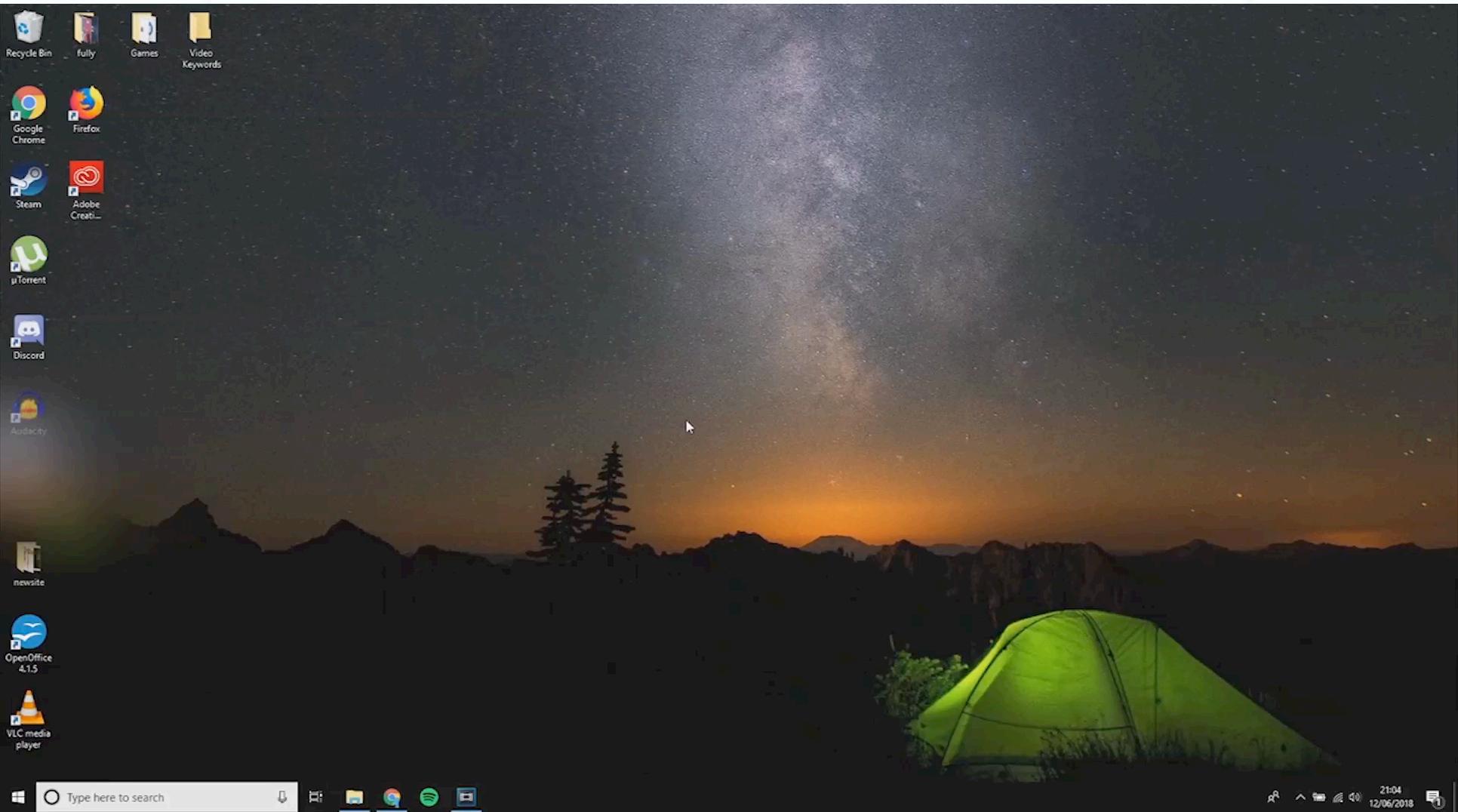
Write-once media is blank when purchased and is written by the consumer. Once it is written to, the data on it cannot be changed. An example of write-once media is the CDR (or CD-R).

## **Write-rewrite**

Write-rewrite media can be written, erased, and rewritten by the end user. An example is the CD-RW. This type of media is generally more expensive than the CD, the DVD, or the CDR.

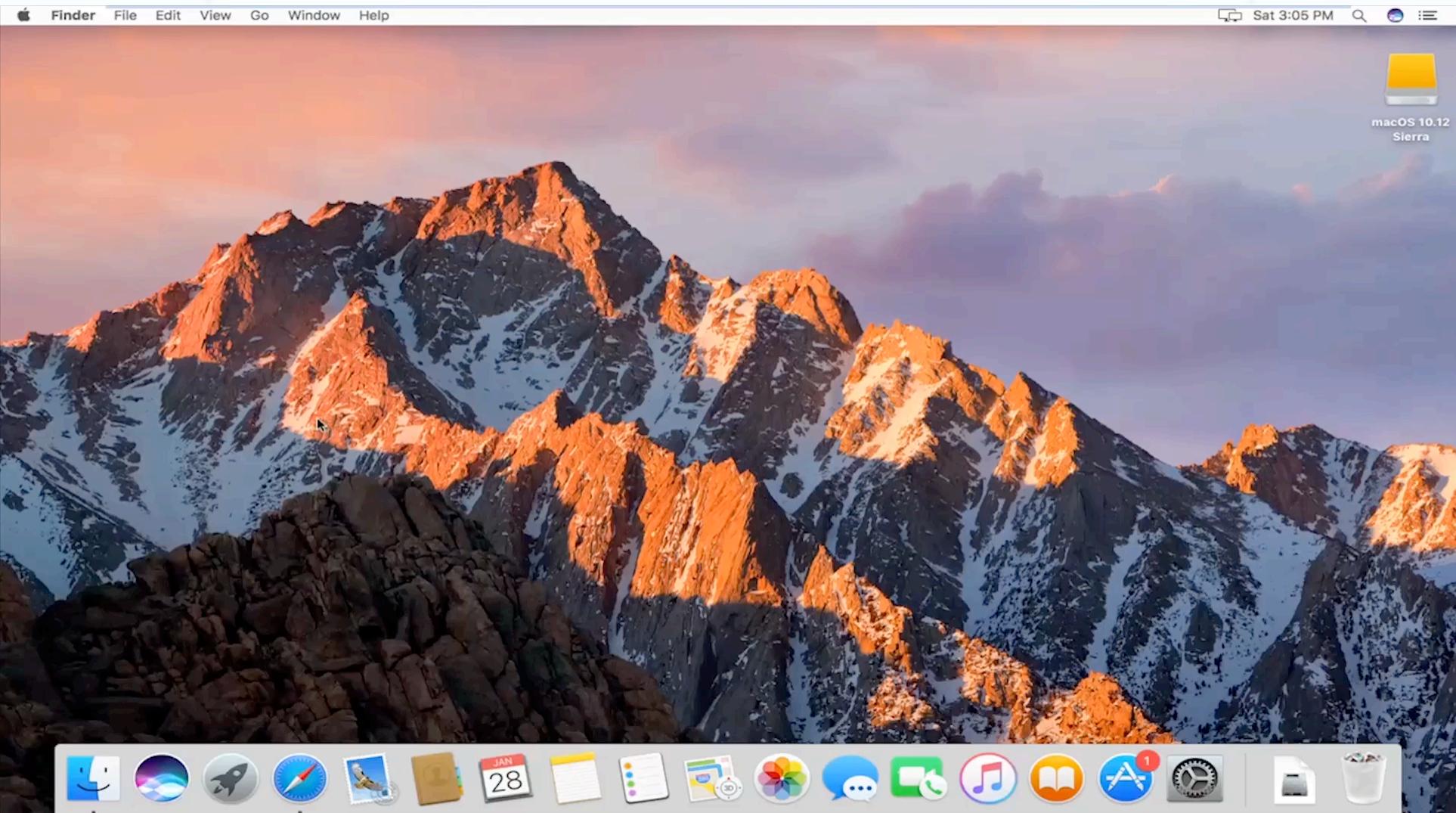
# Determine the following on a computer system:

**Windows**



# Determine the following on a computer system:

Mac



# Determine the following on a computer system:

## **Windows**

Click the "Start" button. Then click "My Computer" with the right mouse button, and select "Properties". This will bring up a window. Select the "General" tab, and the computer will display the processor speed, memory capacity, as well as a number of other bits of information.

To find the storage capacity, click the "Start" button and then use the left mouse button to select "My Computer".

This will open a new window, which will show all the drives on the computer. Generally, the "C:" drive is the hard drive, so right-click on that and select "Properties" - this will show you the drive capacity as well as how much of the drive is in use.

Be sure to pay attention to the use of the left mouse button versus the right mouse button.

# Determine the following on a computer system:

## **Mac**

Click on the "Apple" at the top left corner of the screen.

Now click on "About This Mac". This will bring up a window that contains the processor type and speed and how much memory the computer has. To find the storage capacity on the hard drive, click the "More Info..." button. Now click on "ATA" under "Hardware". There should be two "ATA Bus" sections. Click on the bottom section or the one that doesn't contain anything about a CD drive. The hard drive capacity is under "Capacity".

# Advantages of increasing Processor Speed, Hard Drive Storage Capacity, and RAM on a computer:

**Increasing the processor speed of a computer will allow it to make more computations per second, which will improve its performance.**

**Increasing the amount of RAM in a computer will also increase its performance, by increasing the speed of the reaction time of your operating system and the programs on your computer. Increasing RAM capacity will eliminate or reduce the amount of time it takes to access programs.**

**Increasing the storage capacity of a computer will not make it run any faster (as increasing the processor speed and memory capacity will), but it will allow more files and programs to be stored on the computer.**

# Two different types of printers & their uses and advantages.



**Laser Printer**

**A laser printer is a type of printer that produces high quality printing, and is able to produce both text and graphics. The paper passes through a fuser, which, with heat and pressure, bonds the plastic powder (Toner) to the paper. Laser printers tend to be more expensive than Inkjet printers**

# Two different types of printers & their uses and advantages.



## Inkjet Printer

**Inkjet printing is a type of printing that recreates a digital image by propelling droplets of ink onto paper and plastic substrates. Inkjet printers are the most commonly used type of printer, and range from small inexpensive consumer models to expensive professional machines.**

# Computer Safety

## **Backup of personal files**

An important fact about modern computing is that computers eventually fail. If the hard drive on a computer fails, it may be difficult or impossible to recover the data that is stored on it. Forward-thinking computer users keep all of their important personal files backed up on external media so that when the computer fails, they still have their data.

## **Whole system image backup**

It is not nearly as important to back up program files, because the program can be re-installed when the computer is repaired or replaced. However, re-installing every program that a computer user needs can be a time-consuming and frustrating process. If the whole system is backed up, it can be restored in short order.

## **Surge protection**

The A/C power that feeds most businesses and households is subject to all kinds of disturbances that can disrupt or damage a computer. Lightning strikes can induce large currents in power lines, and these translate into "surge" voltages. The increased voltage can easily damage a computer. Most often, this affects its power supply module. A surge protector is designed to absorb these voltage surges, preventing damage to the computer.

## **Internet safety hardware/software**

An unfortunate fact of modern life is that the world is filled with evil (or immature) people who think it's fun to destroy data on a stranger's computer. Some of these people are capable of "hacking" their way into computer systems and altering files - even taking complete control of the computer. Once hacking was confined to a small community of immature, thoughtless programmers looking for a thrill, but it is becoming more and more an activity conducted by organized crime.

Firewalls and antivirus software are designed to combat these operations, but in order to be effective; they must be installed and constantly updated.