

09 What is an Operating System?

An **operating system** is the most important software that runs on a computer. It manages the computer's **memory**, **processes**, and all of its **software** and **hardware**. It also allows you to **communicate** with the computer without knowing how to speak the computer's language. **Without an operating system, a computer is useless.**

Play the video by going to page 1 and clicking the link below: (Ctrl + click)

[What is an Operating System?](#)

- After you watch the video, **read** the rest of the section on the following pages and **answer the quiz questions.**

The Operating System's Job

Your computer's **operating system (OS)** manages all of the **Software** and **Hardware** on the computer. Most of the time, there are many different computer programs running at the same time, and they all need to access your computer's **central processing unit (CPU)**, **memory**, and **storage**. The operating system coordinates all of this to make sure each program gets what it needs.

Types of Operating Systems

Operating systems usually come **preloaded** on any computer (desktop or laptop) you buy. Most people use the operating system that comes with their computer, but it's possible to upgrade or even change operating systems.

The three most common operating systems for personal computers are **Microsoft Windows**, **Mac OS X**, and **Linux**.



Modern operating systems use a **graphical user interface**, or **GUI** (pronounced *goeey*). A GUI lets you use your mouse to click **icons**, **buttons**, and **menus**, and everything is clearly displayed on the screen using a combination of **graphics** and **text**.

Each operating system's **GUI has a different look and feel**, so if you switch to a different operating system it may seem unfamiliar at first. However, modern operating systems are designed to be **easy to use**, and most of the basic principles are the same.

Microsoft Windows 10



Microsoft created the **Windows** operating system in the mid-1980s. Over the years, there have been many different versions of Windows, but the most recent ones are:
Windows 10 (released in 2015)
Windows 8 (2012)
Windows 7 (2009)
Windows Vista (2007)
Windows comes **preloaded** on most new PCs. It is the **most popular operating system** in the world.

Apple Mac OS X



Mac OS is an operating system created created by Apple in 1984. It comes preloaded on all new Apple computers, or Macs.

All of the recent versions are known as **OS X** (pronounced O-S Ten), and the specific versions include:

- Mojave** (released in 2018)
- High Sierra** (2017)
- Sierra** (2016)
- El Capitan** (2015)
- Yosemite** (2014)

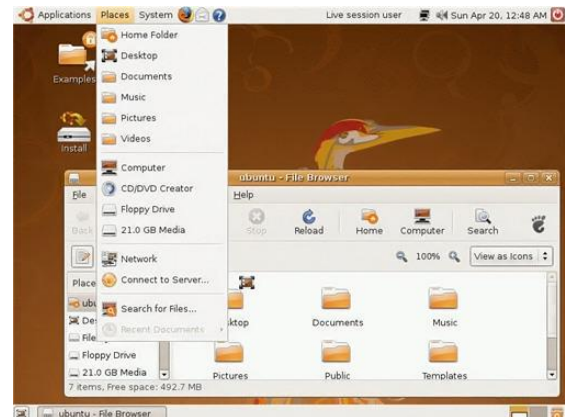
According to [StatCounter Global Stats](#), (2019) Mac OS X users account for approximately **14%** of the global desktop/laptop computer operating systems—much lower than the percentage of desktop Windows users (approximately **79%**). One reason for this is that Apple computers tend to be more expensive. However, many people do prefer the look and feel of Mac OSX over Windows.

Linux

Linux (pronounced **LINN-ux**) is a family of **open-source** operating systems, which means they can be modified and distributed by anyone around the world. This is different from **proprietary software** like Windows, which can only be modified by the company that owns it. The advantages of Linux are that it is free, and there are many different distributions—or versions—you can choose from.

According to Statcounter Global Stats, , Linux users account for approximately **2%** of global operating systems. However, most **servers** run Linux because it's relatively easy to customize.

Other desktop/laptop operating systems account for approximately 5% of the market share.



Operating systems for mobile devices

The operating systems we've been talking about so far were designed to run on **desktop** or **laptop** computers.

Mobile devices such as **phones**, **tablet computers**, and **MP3** players are different from desktop and laptop computers, so they run operating systems that are designed specifically for mobile devices.

Examples of mobile operating systems include **Apple iOS** and **Google Android**. In the screenshot to the right, you can see iOS running on an iPad.

Operating systems for mobile devices generally aren't as fully featured as those made for desktop and laptop computers, and they aren't able to run all of the same software. However, you can still do a lot of things with them, like watch movies, browse the Internet, manage your calendar, and play games.

