

# Welcome to Computers 101

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This is a website to collect some information for seniors and others about computers and how to use them safely and securely.

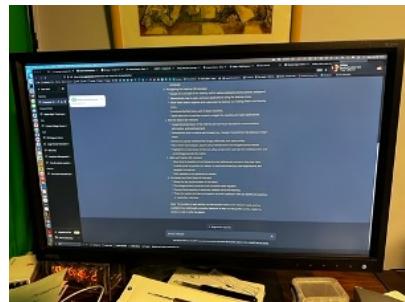
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## What is a computer?

A computer is any electronic device that stores and processes information: a desktop, a laptop, a cell phone, or a tablet. Some computers are "embedded" like Alexa or Google Home. Embedded computers are part of the "internet of things" (IOT).

A computer consists of:

- A [screen](#) or display to allow text, images, and colors to be shown,



- A [keyboard](#) to allow text to be entered,



- A [mouse](#) or other pointing device to allow selection of things on the screen,



- A **case** to hold it all together, and
- Other **peripherals** like USB ports, ethernet, microphone.

## What is the desktop?

When a computer finishes starting up, what is seen is the [desktop](#).

Each operating system is a bit different, but they all have a desktop or home screen. The operating systems that are most familiar are Apple's MacOS, Microsoft's Windows, Apple's iOS, and Google's Android.

### Apple Computer, Microsoft Computer, Apple Phone Desktops

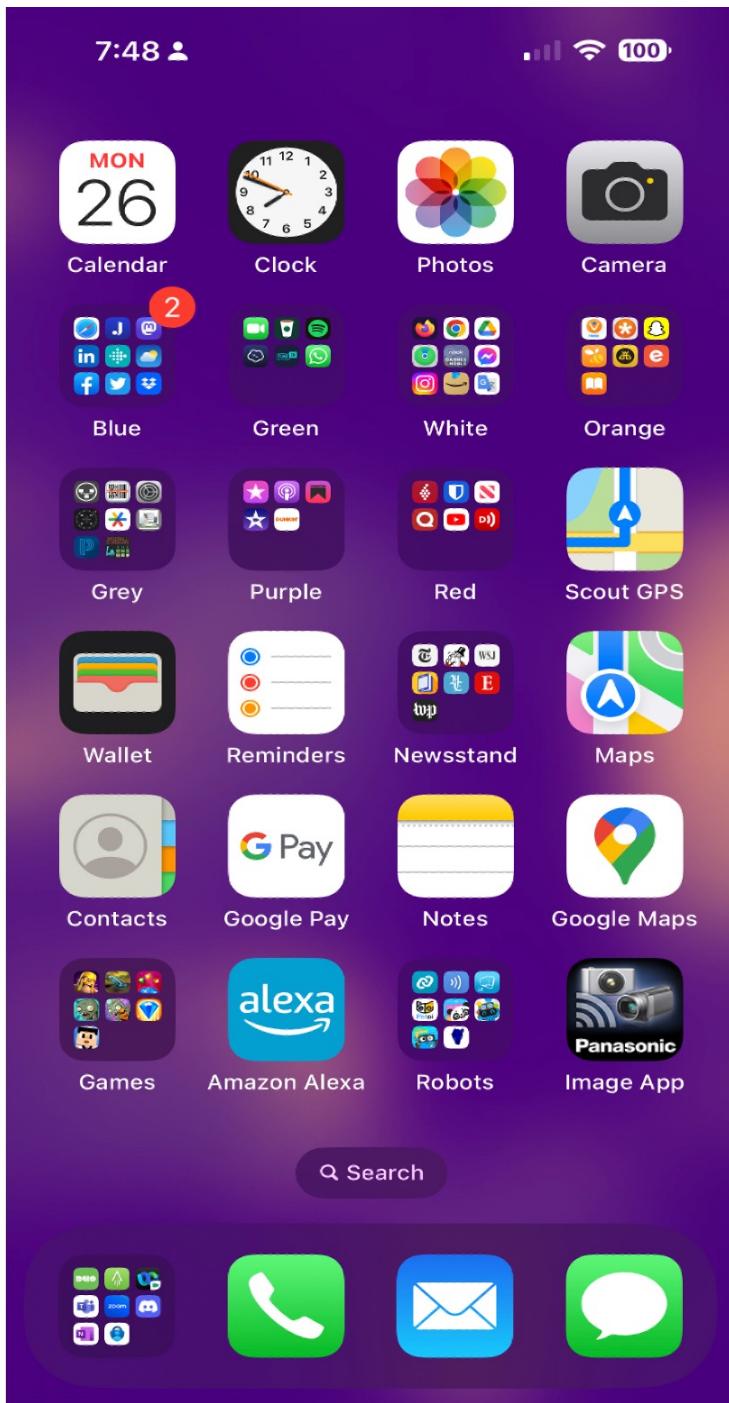
The Apple computer desktop looks like this.



The Windows computer desktop looks like this.



The Apple phone home screen looks like this.



## Parts of a desktop

Despite being created by different companies on different computers, there are some parts of a desktop that are similar: The task bar or dock and the icons used.

### Task Bar (Windows) or Dock (Apple)

The task bar or dock is where apps are where the most-used functions of a computer are usually accessed.



## What are backups?

# What are streaming services?

## How can I help?

This section is more about how to help people with computers than about computers themselves. It collates some information that I've gleaned from helping people who are less familiar with technology at hand than I am.

### Take time to understand

The most important thing to remember is that the person you are helping deserves respect, but is probably frustrated by their inability to do something with the technology. Spend time understanding what they are trying to do and what they have done to try to do it.

Often, the person has tried the right steps to achieve what they want, but perhaps in the wrong order. Or perhaps they've left out a crucial step.

**Take time to understand the problem and the person you're talking to.**

### Apply all updates

Computers and other devices get many, many updates. Sometimes, when an update is pending on a computer or device, the device stops working correctly. This may not be obvious, so know how to find where updates are applied.

- For Microsoft Windows, see Microsoft [[Microsoftb](#)].
- For Apple MacOS, see Apple [[Apple](#)].

**Apply all updates.**

### Have you tried...

There is a well-known joke in IT circles that comes from the show [\*The IT Crowd\*](#). The joke is that the first thing the IT help desk asks you is:

*Have you tried turning it off and back on again?*

Unfortunately, this joke is funny because it's often true.

Turn off the computer. Perhaps even unplug it if that's easy to do. Wait for at least 30 seconds. Check that all lights and LEDs are out. Plug the computer back in and turn it on again.

**Restart the computer.**

### Check the cables

Power cables, peripheral cables, mouse cables, USB cables, and other cables may seem like something that should **just work** but they often break or stop working as they should.

If possible, change the cable for a different one of the same sort, and see if that fixes the problem.

**Change the cables.**

### Check the paper

Sometimes printers stop working because they can't detect the paper is available, even when there are several sheets still in the feeder. Add more sheets to the feeder, preferably filling it up to capacity.

**Fill the printer with paper.**

## Check the ink

Printers also sometimes stop working when only one of the ink cartridges is empty. Check the status of the printer, and look specifically at the ink levels.

Fill the ink.

## Check the settings

There are many, many things that can go wrong with settings. Here is a list of things to check.

- Is the device on the Wi-Fi network?
- Is the device on the **right** Wi-Fi network?

## Driving a computer

These are some tips for driving a computer.

### Make the text BIGGER

Some websites have text that is very small. Most browsers have a way to increase the zoom level.

- On Windows, pressing the control key and rotating the mouse wheel will zoom in and out.
- On Windows, pressing the Windows button and the + symbol will zoom in (make text bigger).  
Pressing the Windows button and the - symbol will zoom out (make text smaller).
- On MacOS, pressing the Command key and the + symbol will zoom in (make text bigger).  
Pressing the Command key and the - symbol will zoom out (make text smaller).

### Why can't I hear anything?

First, check that the audio on the computer is not muted. Muting turns the volume all the way off, regardless of the volume setting.

- On Windows, this can be done by checking the speaker symbol in the task bar in the bottom right of the screen.
- On MacOS, go to the Apple menu, open System Settings, and click Sound in the left hand list. Scroll down to the bottom and see that the checkbox beside the word **Mute** is not checked.

Second, check that the audio on the computer is at an acceptable level.

- On Windows, this can be done by clicking on the speaker symbol in the task bar in the bottom right of the screen, and checking the volume bar that appears.
- On MacOS, go to the Apple menu, open System Settings, and click Sound in the left hand list. Scroll down to the bottom and see the **Output volume** is at an appropriate level. The sound volume can also be checked in the top bar by clicking the headphones or speaker icon and checking that the revealed volume control is all the way to the right.

Third, check which applications are using the audio. Sometimes, one application takes over complete control and won't let other applications make a sound. The best thing is to close all applications that could possibly use the sound (including the one you want), and then open the one that you want.

## Videos

### What are computers?



## Glossary

### **adware**

Adware is software that shows you more advertisements than normal. It is a form of [malware](#) that can be installed on your computer by a [bad actor](#).

### **app**

An app, short for application, is something that makes the computer do things.

### **authenticator**

An app that provides a way to do [two factor authentication](#). Examples are Duo [[Duo](#)], Microsoft [[Microsofta](#)], and Google LLC [[GoogleLLC](#)] .

### **bad actor**

A bad actor – from a cybersecurity viewpoint – is someone that tries to compromise your computer security.

### **case**

A case is the box that all the parts of the computer are kept in.

### **cursor**

A cursor is a graphical indication of where input is to be delivered. One kind of cursor is the mouse cursor. This is where the mouse or other pointing device is currently pointing. Another kind of cursor is the text cursor. This is where keys typed on a keyboard will be put.

### **cybersecurity**

Cybersecurity is what you do on a computer to implement [security](#).

### **desktop**

The desktop is the start screen on most computers. On tablets and phones, this is sometimes called the home screen.

### **display**

See [screen](#).

### **internet**

The internet is the network of networks connecting computers with each other.

### **internet of things**

The internet of things describes how many mundane things now have computers in them and need to be connected to the internet.

### **IOT**

## malware

Malware is a portmanteau of **malicious software**. This is software that a [bad actor](#) tries to get you to install on your computer. Examples of malware are [ransomware](#), [spyware](#), or [adware](#).

## mouse

A mouse is pointing device used to move the onscreen [cursor](#) around. Sometimes this takes the form of a touchpad or trackpad built into a laptop instead of a separate device. Some computers have touch sensitive screens so this function can be done using your fingers.

## operating system

The operating system is the software that glues the computer's hardware to its apps.

## peripheral

A peripheral is an added component to a computer. Examples of peripherals are external drives, web cameras, printers, and scanners.

## phishing

Phishing is when someone sends you a message pretending to be someone they're not, hoping to get you to tell them your username and password for an interesting site. For example, someone might pretend to be from your bank and get you to enter your credentials on a website that **looks** like the bank's website, but isn't.

## PII

PII stands for personally identifiable information and can be anything that can be used to find or identify you: your full name, your phone number, your address, or your social security number.

## program

See [app](#).

## QR code

A QR code is an image that can be scanned by a computer or phone to give extra information, often a URL.

## ransomware

Ransomware is malicious software that locks you out of your computer without paying the [bad actor](#) who installed it a ransom.

## security

Security is what you do to protect yourself, your loved ones, your information, and your things.

## screen

The screen is that part of the computer that shows text, pictures, and colors.

## spyware

Spyware is software that monitors you or your computer and sends the information to a [bad actor](#).

## touchpad

See [mouse](#).

## trackpad

See [mouse](#).

## trojan horse

In cybersecurity, a trojan horse is software that pretends to be something it's not, usually trying to fool you into giving it personal information.

## **two factor authentication**

Two factor authentication (2FA) uses an additional layer of security, other than your username and password, to protect computer accounts. These extra layers can be a mobile phone number, your face or finger print, or an authenticator application on your phone.

## **uniform resource locator**

A uniform resource locator is text that tells where something is on the internet. Often these are typed into the text box of a web browser to go to a website or to download a document.

## **URL**

See [uniform resource locator](#).

## **USB**

USB stands for Universal Serial Bus. This is a way for computers to be extended. This includes more permanent storage, a different keyboard, or other [peripherals](#). There are many different sorts of USB connectors Wikipedia [[Wikipedia](#)].

## **2FA**

See [two factor authentication](#).

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