**Operating system**

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| **Operating systems** |
| Operating system placement.svg  [About this image](https://en.wikipedia.org/wiki/File:Operating_system_placement.svg) |
| **Common features** |
| * [Process management](https://en.wikipedia.org/wiki/Process_management_(computing)) * [Interrupts](https://en.wikipedia.org/wiki/Interrupt) * [Memory management](https://en.wikipedia.org/wiki/Memory_management) * [File system](https://en.wikipedia.org/wiki/File_system) * [Device drivers](https://en.wikipedia.org/wiki/Device_driver) * [Networking](https://en.wikipedia.org/wiki/Computer_network) * [Security](https://en.wikipedia.org/wiki/Computer_security) * [I/O](https://en.wikipedia.org/wiki/Input/output) |
| * [v](https://en.wikipedia.org/wiki/Template:OS) * [t](https://en.wikipedia.org/wiki/Template_talk:OS) * [e](https://en.wikipedia.org/w/index.php?title=Template:OS&action=edit) |

An **operating system** (**OS**) is [system software](https://en.wikipedia.org/wiki/System_software) that manages [computer hardware](https://en.wikipedia.org/wiki/Computer_hardware), [software](https://en.wikipedia.org/wiki/Computer_software) resources, and provides common [services](https://en.wikipedia.org/wiki/Daemon_(computing)) for [computer programs](https://en.wikipedia.org/wiki/Computer_program).

[Time-sharing](https://en.wikipedia.org/wiki/Time-sharing) operating systems [schedule tasks](https://en.wikipedia.org/wiki/Scheduler_(computing)) for efficient use of the system and may also include accounting software for cost allocation of [processor time](https://en.wikipedia.org/wiki/Scheduling_(computing)), [mass storage](https://en.wikipedia.org/wiki/Mass_storage), [printing](https://en.wikipedia.org/wiki/Printer_(computing)), and other resources.

For hardware functions such as [input and output](https://en.wikipedia.org/wiki/Input_and_output) and [memory allocation](https://en.wikipedia.org/wiki/Memory_allocation), the operating system acts as an intermediary between programs and the computer hardware,[[1]](https://en.wikipedia.org/wiki/Operating_system#cite_note-1)[[2]](https://en.wikipedia.org/wiki/Operating_system#cite_note-2) although the application code is usually executed directly by the hardware and frequently makes [system calls](https://en.wikipedia.org/wiki/System_call) to an OS function or is interrupted by it. Operating systems are found on many devices that contain a computer – from [cellular phones](https://en.wikipedia.org/wiki/Cellular_phone) and [video game consoles](https://en.wikipedia.org/wiki/Video_game_console) to [web servers](https://en.wikipedia.org/wiki/Web_server) and [supercomputers](https://en.wikipedia.org/wiki/Supercomputer).

The dominant [desktop](https://en.wikipedia.org/wiki/Personal_computer) operating system is [Microsoft Windows](https://en.wikipedia.org/wiki/Microsoft_Windows) with a market share of around 82.74%. [macOS](https://en.wikipedia.org/wiki/MacOS" \o "MacOS) by [Apple Inc.](https://en.wikipedia.org/wiki/Apple_Inc.) is in second place (13.23%), and the varieties of [Linux](https://en.wikipedia.org/wiki/Linux) are collectively in third place (1.57%).[[3]](https://en.wikipedia.org/wiki/Operating_system#cite_note-3) In the [mobile](https://en.wikipedia.org/wiki/Mobile_operating_system) (including [smartphones](https://en.wikipedia.org/wiki/Smartphone) and [tablets](https://en.wikipedia.org/wiki/Tablet_computer)) sector, [Google](https://en.wikipedia.org/wiki/Google) [Android's](https://en.wikipedia.org/wiki/Android_(operating_system)) share is up to 70% in the year 2017.[[4]](https://en.wikipedia.org/wiki/Operating_system#cite_note-4) According to third quarter 2016 data, Android's share on smartphones is dominant with 87.5 percent with also a growth rate of 10.3 percent per year, followed by [Apple](https://en.wikipedia.org/wiki/Apple_Inc.)'s [iOS](https://en.wikipedia.org/wiki/IOS" \o "IOS) with 12.1 percent with per year decrease in market share of 5.2 percent, while other operating systems amount to just 0.3 percent.[[5]](https://en.wikipedia.org/wiki/Operating_system#cite_note-5) [Linux distributions](https://en.wikipedia.org/wiki/Linux_distribution) are dominant in the server and supercomputing sectors. Other specialized classes of operating systems, such as embedded and real-time systems, exist for many applications.

**Operating Type Variation:**

The operating system of that type is currently running. They are Windows, Mac, and Linux. Android is an operating system but it is just a Linux distribution. Below is a configuration of a Linux base machine (Android) on a Windows machine

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| **Windows Machine** | **Linux Machine** |
| 1. Name: HP  2. Operating System: Windows 10 Pro.  3. Processor: Intel core i5-3217U (Update: Intel core i9) 4. RAM: 8GB (DDR 3)  5. CPU: 1.80GHz  6. System type: 64-bit operating system  7.HDD: 1TB (1024 GB)  8. Display: 15.6” LED backlit FHD(1920\*1080) 60Hz 9. Keyboard: Chiclet keyboard  10. Card Reader: Multi-format(SD/MMC)  11. WebCam: No Webcam  12. Wi-Fi: EEE802.11(Stander)  13. Bluetooth: Built-in-V4.0 14.Interface • 1x Microphone-in-/Headphoneout jack • 2X Type A USB 3.0 • 1x HDMI • 1x Micro SD card 15. Audio: Built-in Stereo 2W Speakers and Microphone ASUS Sonic Master Technology 16. Battery: 3 Cells 36 Whrs Battery 17. Power Adapter: • -Output: 19 V DC,4.74 A, 90 W • -Input: 100-220 V AC, 50/60 Hz | 1. Name: Samsung Galaxy S5  2. Operating System: Android 6.1  3. Processor: 1.9 Hz Octa-core  4. RAM: 2GB 5. Internal storage: 16 GB 6. Expandable storage: 128 GB 7. Sensor: • Fingerprint (front-mounted), accelerometer, gyro, proximity, compass, barometer, gesture, Heart rate. • ANT+ • S-Voice natural language commands and dictation • Air gestures 8. Camera: • Rear camera: 16-megapixel • Front camera: 2-megapixel • Rear Flash: LED 9. Display: • Full touch screen (Gorilla Glass) • Screen size: 5.1” • Resolution: 1080x1920 pixels  10. Battery: 3800mAh  11. Wi-Fi: 802.11 a/b/g/n/ac  12. Bluetooth: v4.0 13. Network: HSPA 14. Supportable: GPS,NFC,USB OTG |