

Survey of Operating Systems, 6e (Holcombe)

Chapter 1 Introduction to Operating Systems

1) This type of small integrated circuit is central to a desktop computer, performing the processing for the computer.

- A) RAM
- B) ROM BIOS
- C) Motherboard
- D) Microprocessor

Answer: D

Difficulty: 2 Medium Page Ref: 2

Learning Objective: 01-01 Describe the purpose and functions of operating systems.

Accessibility: Keyboard Navigation

2) This is the central circuit board of a computer.

- A) Memory
- B) Motherboard
- C) ROM BIOS
- D) Video adapter

Answer: B

Difficulty: 1 Easy Page Ref: 3

Learning Objective: 01-01 Describe the purpose and functions of operating systems.

Accessibility: Keyboard Navigation

3) Of the mobile OSs discussed in this chapter, which one is legally installed only on devices from a single manufacturer?

- A) iOS
- B) Android
- C) Windows 10
- D) Windows 10 Mobile

Answer: A

Explanation: Apple installs their mobile OS on their own devices, and they do not license it to other manufacturers.

Difficulty: 1 Easy Page Ref: 29

Learning Objective: 01-04 List the most common mobile OSs, the devices associated with them, and the features found in most of these devices.

Accessibility: Keyboard Navigation

4) Which of the following choices is the Google OS installed by manufacturers on certain laptops, desktops, and tablet computers?

- A) UNIX
- B) iOS
- C) Linux
- D) Chrome OS

Answer: D

Explanation: The Google Chrome OS is installed by manufacturers on Chromebook laptops and Chromebox desktops.

Difficulty: 1 Easy Page Ref: 28

Learning Objective: 01-03 List and compare the common desktop operating systems in use today.

Accessibility: Keyboard Navigation

5) The user communicates with the OS through this software layer.

- A) Job management
- B) User interface
- C) Device management
- D) Video adapter

Answer: B

Explanation: This is one of the functions of an operating system.

Difficulty: 2 Medium Page Ref: 5

Learning Objective: 01-01 Describe the purpose and functions of operating systems.

Accessibility: Keyboard Navigation

6) What OS function controls the focus (where the operating system's attention is at any given moment) and allows the user to move the focus from one application to another as the user brings it to the foreground?

- A) User interface
- B) Device management
- C) Memory management
- D) Task management

Answer: D

Explanation: This function gives the attention of the computer's resources to each task as the focus moves.

Difficulty: 2 Medium Page Ref: 7

Learning Objective: 01-01 Describe the purpose and functions of operating systems.

Accessibility: Keyboard Navigation

7) Which version of a popular desktop OS was released in 2009, but is still in use today despite the availability of newer versions?

- A) Windows XP
- B) Linux
- C) macOS
- D) Windows 7

Answer: D

Explanation: The version that followed this, Windows 8, was extremely unpopular.

Difficulty: 2 Medium Page Ref: 24

Learning Objective: 01-03 List and compare the common desktop operating systems in use today.

Accessibility: Keyboard Navigation

8) What common mobile OS feature is important for people who want to access the same data across all their devices?

- A) Acceleration
- B) Updates
- C) Synchronization
- D) Touch screen

Answer: C

Explanation: Keep your data files up-to-date across all your computing devices with this feature.

Difficulty: 2 Medium Page Ref: 31

Learning Objective: 01-04 List the most common mobile OSs, the devices associated with them, and the features found in most of these devices.

Accessibility: Keyboard Navigation

9) On a mobile device, the operating system resides in firmware, and is therefore, a/an _____ OS.

- A) Single-user/multitasking
- B) Multiuser/multitasking
- C) Embedded
- D) GUI

Answer: C

Explanation: Although mobile OSs are stored in firmware, they can still be updated as needed.

Difficulty: 1 Easy Page Ref: 4

Learning Objective: 01-01 Describe the purpose and functions of operating systems.

Accessibility: Keyboard Navigation

10) Use one of these popular mobile devices for cellular voice communications, browsing the Internet, managing email, and many other functions.

- A) PC
- B) Laptop
- C) MacBook
- D) Smartphone

Answer: D

Explanation: Smartphones come in a wide range of types and capabilities.

Difficulty: 1 Easy Page Ref: 4

Learning Objective: 01-01 Describe the purpose and functions of operating systems.

Accessibility: Keyboard Navigation

11) What term is used in an OS GUI to describe a specialized file that contains information about the locations of other files?

- A) Partition
- B) Folder
- C) File allocation table
- D) Sector

Answer: B

Explanation: The icon that represents one of these in a GUI resembles something you use to hold papers in a file cabinet.

Difficulty: 1 Easy Page Ref: 7

Learning Objective: 01-01 Describe the purpose and functions of operating systems.

Accessibility: Keyboard Navigation

12) Save money on your data plan by using this type of connection for connecting to the Internet whenever possible.

- A) Bluetooth
- B) Cellular
- C) Ethernet
- D) Wi-Fi

Answer: D

Explanation: Connect through a hotspot to the Internet and save on cellular data costs.

Difficulty: 2 Medium Page Ref: 29

Learning Objective: 01-04 List the most common mobile OSs, the devices associated with them, and the features found in most of these devices.

Accessibility: Keyboard Navigation

13) Although this OS predates microcomputers, today a wide variety of platforms still use recent versions.

- A) UNIX
- B) macOS
- C) Windows
- D) DOS

Answer: A

Explanation: Bell Labs started work on this OS in 1969, and it is still alive today on servers and other systems.

Difficulty: 2 Medium Page Ref: 11

Learning Objective: 01-02 Describe major events in the evolution of operating systems.

Accessibility: Keyboard Navigation

14) What version of UNIX came out of a California university, and carries the name of that campus?

- A) AIX
- B) HP/UX
- C) BSD
- D) Solaris

Answer: C

Explanation: This version of UNIX originated at the Berkeley campus or the University of California.

Difficulty: 3 Hard Page Ref: 11

Learning Objective: 01-02 Describe major events in the evolution of operating systems.

Accessibility: Keyboard Navigation

15) This acronym describes the networking of devices that are not thought of as computing devices but contain microcomputers to control their functions.

- A) IC
- B) UEFI
- C) SoC
- D) IoT

Answer: D

Explanation: The non-computer "things" now connected to networks includes kitchen appliances, thermostats, utility meters, components in automobiles, light bulbs, and industrial control devices. The Internet of Things.

Difficulty: 2 Medium Page Ref: 5

Learning Objective: 01-01 Describe the purpose and functions of operating systems.

Accessibility: Keyboard Navigation

16) This early microcomputer predated the Apple II computer.

- A) Commodore PET
- B) MITS Altair
- C) Lisa
- D) IBM PC

Answer: B

Explanation: Popular Electronics featured this computer in a cover story in 1975; the input was via switches and the output consisted of blinking lights.

Difficulty: 2 Medium Page Ref: 12

Learning Objective: 01-02 Describe major events in the evolution of operating systems.

Accessibility: Keyboard Navigation

17) This application program was considered the killer app for the Apple II computer.

- A) Lotus 1-2-3
- B) Microsoft BASIC
- C) VisiCalc
- D) CP/M

Answer: C

Explanation: VisiCalc was the first widely successful spreadsheet application.

Difficulty: 2 Medium Page Ref: 13

Learning Objective: 01-02 Describe major events in the evolution of operating systems.

Accessibility: Keyboard Navigation

18) What program was the killer app that helped make the IBM PC successful in the 1980's?

- A) Lotus 1-2-3
- B) Microsoft BASIC
- C) VisiCalc
- D) CP/M

Answer: A

Explanation: This spreadsheet application ran on DOS and was introduced in 1983.

Difficulty: 2 Medium Page Ref: 16

Learning Objective: 01-02 Describe major events in the evolution of operating systems.

Accessibility: Keyboard Navigation

19) What was the first Apple computer with a GUI OS?

- A) Lisa
- B) Apple I
- C) iMac
- D) Apple II

Answer: A

Explanation: This computer was not a commercial success because it lacked applications; it was overshadowed by another Apple computer that was released two years later.

Difficulty: 2 Medium Page Ref: 14

Learning Objective: 01-02 Describe major events in the evolution of operating systems.

Accessibility: Keyboard Navigation

20) This OS was jointly developed by Microsoft and IBM.

- A) PC DOS
- B) MS-DOS
- C) OS/2
- D) Warp

Answer: C

Explanation: Microsoft and IBM introduced this operating system in 1987.

Difficulty: 2 Medium Page Ref: 16

Learning Objective: 01-02 Describe major events in the evolution of operating systems.

Accessibility: Keyboard Navigation

21) Introduced in 2001, this OS was still the prevalent Windows version on desktops on October 22, 2010, the last day you could buy a new PC with it preinstalled.

- A) Windows Vista
- B) Windows XP
- C) Windows NT
- D) Windows Me

Answer: B

Explanation: This version of Windows still held a large market share on desktop PCs after the introduction of Windows Vista in 2007 and only began to slip after the introduction of Windows 7 in 2009.

Difficulty: 2 Medium Page Ref: 22

Learning Objective: 01-02 Describe major events in the evolution of operating systems.

Accessibility: Keyboard Navigation

22) What is the name of Google's mobile operating system, used on smartphones and tablets from many manufacturers?

- A) Blackberry OS
- B) iOS
- C) Phone 8
- D) Android

Answer: D

Explanation: Google licenses its mobile OS for free.

Difficulty: 1 Easy Page Ref: 29

Learning Objective: 01-04 List the most common mobile OSs, the devices associated with them, and the features found in most of these devices.

Accessibility: Keyboard Navigation

23) Use this onscreen device whenever you need to enter alphanumeric data into your mobile device.

- A) Bluetooth keyboard
- B) Screen rotation
- C) Virtual keyboard
- D) Accelerometer

Answer: C

Difficulty: 2 Medium Page Ref: 30

Learning Objective: 01-04 List the most common mobile OSs, the devices associated with them, and the features found in most of these devices.

Accessibility: Keyboard Navigation

24) What screen is the heart of the GUI introduced in Windows 8?

- A) Desktop
- B) Apps screen
- C) Sign-in screen
- D) Start screen

Answer: D

Difficulty: 2 Medium Page Ref: 24

Learning Objective: 01-03 List and compare the common desktop operating systems in use today.

Accessibility: Keyboard Navigation

25) What hardware feature of most mobile devices is used by a mobile OS to detect when to rotate the screen to allow you to read or view the image properly?

- A) SSD
- B) Accelerometer
- C) Touch screen
- D) Digital camera

Answer: B

Explanation: Mobile devices today are packed with sophisticated hardware features.

Difficulty: 3 Hard Page Ref: 29

Learning Objective: 01-04 List the most common mobile OSs, the devices associated with them, and the features found in most of these devices.

Accessibility: Keyboard Navigation

26) While earlier versions of this OS ran only on computers with the Motorola PowerPC chip, the current versions run on computers with Intel processors. Which OS is this?

- A) Chrome OS
- B) macOS
- C) Linux
- D) NextStep

Answer: B

Difficulty: 2 Medium Page Ref: 27

Learning Objective: 01-03 List and compare the common desktop operating systems in use today.

Accessibility: Keyboard Navigation

27) What term is used for a software bundle that includes the Linux kernel and additional software?

- A) Version
- B) GNU
- C) Edition
- D) Distribution

Answer: D

Difficulty: 2 Medium Page Ref: 27

Learning Objective: 01-03 List and compare the common desktop operating systems in use today.

Accessibility: Keyboard Navigation

28) What OS began as a student project in 1991?

- A) Windows 3.1
- B) Mac OS X
- C) Linux
- D) UNIX

Answer: C

Explanation: Linus Benedict Torvalds invited other programmers to work together to create an open-source operating system for modern computers.

Difficulty: 2 Medium Page Ref: 27

Learning Objective: 01-03 List and compare the common desktop operating systems in use today.

Accessibility: Keyboard Navigation

29) Which of the following operating systems is open source?

- A) Windows
- B) DOS
- C) macOS
- D) Linux

Answer: D

Difficulty: 2 Medium Page Ref: 27

Learning Objective: 01-03 List and compare the common desktop operating systems in use today.

Accessibility: Keyboard Navigation

30) Which of the following network technologies is the default for a smartphone?

- A) Bluetooth
- B) Cellular
- C) Infrared
- D) Ethernet

Answer: B

Explanation: Cellular providers sell smartphones.

Difficulty: 2 Medium Page Ref: 29

Learning Objective: 01-04 List the most common mobile OSs, the devices associated with them, and the features found in most of these devices.

Accessibility: Keyboard Navigation

31) Smartphones generally have larger screens than tablets.

Answer: FALSE

Explanation: Increasingly, fewer distinctions between smartphones and tablets exist with many new smartphones having screens that approach the size of those on smaller tablets.

Difficulty: 1 Easy Page Ref: 4

Learning Objective: 01-04 List the most common mobile OSs, the devices associated with them, and the features found in most of these devices.

Accessibility: Keyboard Navigation

32) A computer that provides services to other computers over a network is a client.

Answer: FALSE

Explanation: A computer that provides services "serves" its clients running on other computers.

Difficulty: 2 Medium Page Ref: 3

Learning Objective: 01-01 Describe the purpose and functions of operating systems.

Accessibility: Keyboard Navigation

33) A microcomputer is a computer built around a microprocessor.

Answer: TRUE

Explanation: Essentially all commonly used computers today are microcomputers.

Difficulty: 1 Easy Page Ref: 2

Learning Objective: 01-01 Describe the purpose and functions of operating systems.

Accessibility: Keyboard Navigation

34) The Apple Mac computer running the Mac OS System 1 was the first commercially available computer with a graphical user interface.

Answer: FALSE

Explanation: An Apple computer named Lisa that predated the Mac by two years was the first commercially available computer with a GUI.

Difficulty: 2 Medium Page Ref: 14

Learning Objective: 01-02 Describe major events in the evolution of operating systems.

Accessibility: Keyboard Navigation

35) The most controversial changes to Windows in Windows 8 were to the GUI.

Answer: TRUE

Explanation: This feature of Windows 8 is modeled on the Metro GUI introduced in Windows Phone 7.5.

Difficulty: 2 Medium Page Ref: 24

Learning Objective: 01-03 List and compare the common desktop operating systems in use today.

Accessibility: Keyboard Navigation

36) The same security threats that attack other computers target mobile devices.

Answer: TRUE

Explanation: Like modern desktop OSs, mobile OSs are targeted by security threats and have many built-in security features to fend off those security threats.

Difficulty: 2 Medium Page Ref: 31

Learning Objective: 01-04 List the most common mobile OSs, the devices associated with them, and the features found in most of these devices.

Accessibility: Keyboard Navigation

37) Windows NT was a version of Windows that included a graphical interface on top of a DOS kernel.

Answer: FALSE

Explanation: Windows NT was an entirely new operating system with a new kernel.

Difficulty: 2 Medium Page Ref: 20

Learning Objective: 01-02 Describe major events in the evolution of operating systems.

Accessibility: Keyboard Navigation

38) The native user interface for Linux is a command-line interface.

Answer: TRUE

Difficulty: 1 Easy Page Ref: 27

Learning Objective: 01-03 List and compare the common desktop operating systems in use today.

Accessibility: Keyboard Navigation

39) Storage on a mobile device is usually an SSD.

Answer: TRUE

Explanation: Mobile devices are designed for portability, requiring lightweight components.

Difficulty: 2 Medium Page Ref: 29

Learning Objective: 01-04 List the most common mobile OSs, the devices associated with them, and the features found in most of these devices.

Accessibility: Keyboard Navigation

40) Mac OS X (now macOS) runs on the same kernel used in its predecessor, Mac OS 9.

Answer: FALSE

Explanation: Mac OS X (now macOS) is an entirely new OS, with a UNIX kernel.

Difficulty: 2 Medium Page Ref: 15

Learning Objective: 01-03 List and compare the common desktop operating systems in use today.

Accessibility: Keyboard Navigation

41) Complete this sentence: "An operating system is ..."

Answer: An operating system is a collection of programs that controls all interactions among various computer components. It frees application programmers from needing to include such functions in their programs.

Difficulty: 1 Easy Page Ref: 2

Learning Objective: 01-01 Describe the purpose and functions of operating systems.

Accessibility: Keyboard Navigation

42) Give at least two examples of computer input.

Answer: Examples of computer input include typing at the keyboard, typing or tapping on a touch screen, clicking a mouse, and speaking into a microphone.

Difficulty: 1 Easy Page Ref: 2

Learning Objective: 01-01 Describe the purpose and functions of operating systems.

Accessibility: Keyboard Navigation

43) Give at least two examples of computer output.

Answer: Examples of computer output include the text and graphics that displays on the screen, what is sent to a printer (and printed out), sound sent through a speaker, and a file written to disk.

Difficulty: 2 Medium Page Ref: 2

Learning Objective: 01-01 Describe the purpose and functions of operating systems.

Accessibility: Keyboard Navigation

44) List at least five desktop computer hardware components.

Answer: Desktop computer hardware components include central processing unit (CPU)/microprocessor, motherboard, random-access memory (RAM), firmware, keyboard (an input device), pointing device (an input device), microphone (an input device), disk drive for storage, screen (an output device as well as an input device if it is a touch screen), and such output devices as printers and speakers.

Difficulty: 2 Medium Page Ref: 2

Learning Objective: 01-01 Describe the purpose and functions of operating systems.

Accessibility: Keyboard Navigation

45) What contributed to the evolution of desktop operating systems?

Answer: Answers will vary. Both technical advances and the way people used computers contributed to the evolution of desktop operating systems.

Difficulty: 3 Hard Page Ref: 12

Learning Objective: 01-02 Describe major events in the evolution of operating systems.

Accessibility: Keyboard Navigation

46) Complete this sentence: "A tablet may or may not have cellular capabilities, but a smartphone is ..."

Answer: A tablet may or may not have cellular capabilities, but a smartphone is a cellular voice communication device (cell phone), even as it can also be a device for browsing the Internet and doing a host of other functions, while connected to one or more types of networks.

Difficulty: 2 Medium Page Ref: 29

Learning Objective: 01-04 List the most common mobile OSs, the devices associated with them, and the features found in most of these devices.

Accessibility: Keyboard Navigation

47) Name at least two microcomputers created in the 1970s.

Answer: The MITS Altair, Apple I, Apple II, Radio Shack TRS-80, and Commodore PET were all microcomputers created in the 1970s.

Difficulty: 2 Medium Page Ref: 29

Learning Objective: 01-02 Describe major events in the evolution of operating systems.

Accessibility: Keyboard Navigation

48) Complete this sentence: "Mobile devices do not have a single "killer app" that compels people to purchase them, rather an individual may be compelled to buy a certain mobile device based on ..."

Answer: Mobile devices do not have a single "killer app" that inspires people to purchase them. An individual may decide to buy a certain mobile device based on the large number of compelling apps available for that device.

Difficulty: 2 Medium Page Ref: 29

Learning Objective: 01-04 List the most common mobile OSs, the devices associated with them, and the features found in most of these devices.

Accessibility: Keyboard Navigation

49) What OSs are you most likely to find on desktop (and laptop) computers today?

Answer: Windows, macOS, Chrome OS, and Linux.

Difficulty: 2 Medium Page Ref: 24

Learning Objective: 01-03 List and compare the common desktop operating systems in use today.

Accessibility: Keyboard Navigation

50) What one nontechnical fact separates Linux desktop distributions from Windows and macOS?

Answer: Many distributions of Linux are free, while Windows and macOS are commercial products.

Difficulty: 2 Medium Page Ref: 27

Learning Objective: 01-03 List and compare the common desktop operating systems in use today.

Accessibility: Keyboard Navigation