Operating-System Structures

Review Questions

Section 2.1

2.1 List at least three operating system services that are useful to users.

2.2 List at least three operating system functions that maintain efficient operation of the system.

Section 2.2

2.3 What are the two different approaches for providing a user interface?

Section 2.3

2.4 What is a system call?

2.5 What is an API?

2.6 What kernel data structure can be used for one technique of passing parameters to system calls?

Section 2.4

2.7 List at least three of the major categories of system calls.

2.8 A program that has been loaded and executing is called a _____.

2.9 What part of the operating system makes the decision with regards to which job will run?

Section 2.7

2.10 What are the two basic goal groups that must be considered when designing an operating system?

2.11 What is the difference between policy and mechanism?

Section 2.8

2.12 List at least three different ways for structuring an operating system.

2.13 List at least two different hybrid operating systems.

2.14 What are the two devices that run the iOS operating system?

2.15 What technique do microkernels use to communicate between services?

2.16 Provide an example of an operating system that uses the simple structure.

Section 2.10

2.17 True or False? Performance tuning is a type of debugging.

2.18 True or False? DTrace is available for Windows systems.

2.19 Name two activities the operating system is responsible for in connection with disk management.

2.20 Name at least two activities the operating system is responsible for in connection with disk management.

2.21 Of the following 5 forms of storage, rank them from fastest to slowest in terms of access time: (1) main memory, (2) magnetic disk, (3) registers, (4) solid state disk, (5) cache.