# Operating-System Structures


## Practice Exercises

**2.1** What is the purpose of system calls?

**2.2** What is the purpose of the command interpreter? Why is it usually separate from the kernel?

**2.3** What system calls have to be executed by a command interpreter or shell in order to start a new process on a UNIX system?

**2.4** What is the purpose of system programs?

**2.5** What is the main advantage of the layered approach to system design? What are the disadvantages of the layered approach?

**2.6** List five services provided by an operating system, and explain how each creates convenience for users. In which cases would it be impossible for user-level programs to provide these services? Explain your answer.

**2.7** Why do some systems store the operating system in firmware, while others store it on disk?

**2.8** How could a system be designed to allow a choice of operating systems from which to boot? What would the bootstrap program need to do?