Practice Exercises

2.1 What is the purpose of system calls?
2.2 What are the five major activities of an operating system in regard to process management?
2.3 What are the three major activities of an operating system in regard to memory management?
2.4 What are the three major activities of an operating system in regard to secondary-storage management?
2.5 What is the purpose of the command interpreter? Why is it usually separate from the kernel?
2.6 What system calls have to be executed by a command interpreter or shell in order to start a new process?
2.7 What is the purpose of system programs?
2.8 What is the main advantage of the layered approach to system design? What are the disadvantages of using the layered approach?
2.9 List five services provided by an operating system. Explain how each provides convenience to the users. Explain also in which cases it would be impossible for user-level programs to provide these services.
2.10 What is the purpose of system calls?
2.11 What are the main advantages of the microkernel approach to system design?
2.12 Why do some systems store the operating system in firmware, and others on disk?
2.13 How could a system be designed to allow a choice of operating systems to boot from? What would the bootstrap program need to do?