

Exercise 1: Introduction to Operating Systems

Question: Define an operating system and state its main design goals.

Exercise 2: Bootstrap Process

Question: Describe the boot process of an operating system and explain the role of the bootstrap program.

Exercise 3: Evolution of Operating Systems

Question: List and briefly describe the stages of the evolution of operating systems from batch systems to real-time systems.

Exercise 4: Memory Management

Question: Compare memory management in single-programming and multi-programming operating systems.

Exercise 5: Virtual Memory

Question: Explain the concept of virtual memory and how it works in modern operating systems.

Exercise 6: Process Management

Question: Define a process and describe how process management is handled in an operating system.

Exercise 7: Process Synchronization

Question: Discuss the problems and solutions for process synchronization in an operating system.

Exercise 8: Device Management

Question: Describe the functions of the device manager in an operating system and how it manages I/O devices.

Exercise 9: File Management

Question: Describe the main functions of the file manager in an operating system.

Exercise 10: Comparing Popular Operating Systems