

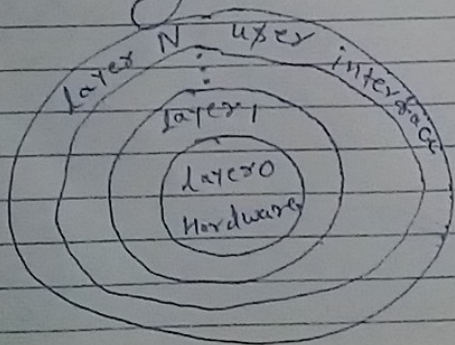
SEC-4

① Write about monolithic kernel, layered, and microkernel structure of operating systems.

Layered structure →

The operating system is divided into a number of layers (levels), each built on top of lower layers. The bottom layer (layer 0) is the hardware, the highest (layer N) is the user interface.

b) With modularity, layers are selected such that each uses function and services of only lower level layers.



Monolithic kernel →

The monolithic approach defines a high level virtual interface over a hardware with a set of primitive or system calls to implement operating system services such as process management, concurrency and memory management in several modules that run in supervisor mode.

software

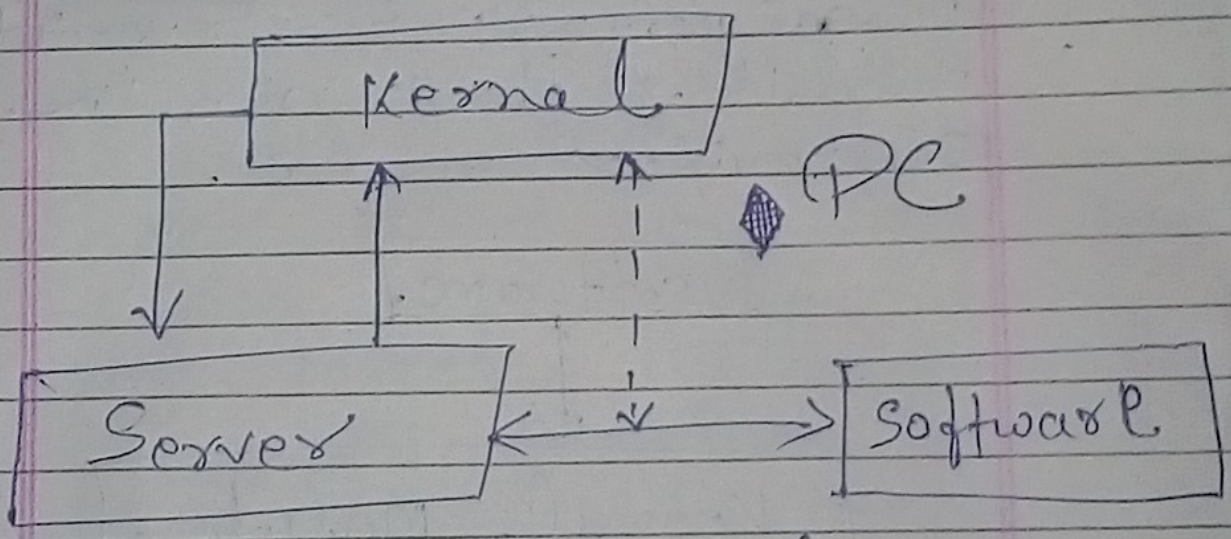
Kernel Module

Hardware

Monolithic kernel

Microkernels

1) In the microkernel approach, the kernel itself only provides basic functionality that allows the execution of servers, separate programs that assume former kernel function that device drivers, GUI servers



Microkernel
