Responsibilities of Operating System

Process Management:

• Scheduling processes and threads on the CPUs

• Creating and deleting both user and system processes

• Suspending and resuming processes

• Providing mechanisms for process synchronization

• Providing mechanisms for process communication

Memory Management:

• Keeping track of which parts of memory are currently being used and who is using them.

• Deciding which processes (or parts of processes) and data to move into and out of memory.

• Allocating and deallocating memory space as needed.

Storage Management:

• Creating and deleting files

• Creating and deleting directories to organize files

• Supporting primitives for manipulating files and directories

• Mapping files onto secondary storage

• Backing up files on stable (nonvolatile) storage media

Disk Management:

• Free-space management

• Storage allocation

• Disk scheduling

What fork() does and what exec(0 does

Message Passing vs Shared memoey

dtrace

lsmod