

Lecture: 3 OS Strategies

Strategy refers to the general characteristics of the programmer's abstract machine.

Generally, there are four common types of operating system strategies on which modern operating systems are built:

- Batch
- Timesharing
- Personal Computing and
- Dedicated

The favored strategy for any given computer depends on how the computer is to be used, the cost-effectiveness of the strategy implementation in the application environment and the general state of the technology at the time the operating system is developed.

- **Batch:**
 - This strategy involves reading a series of jobs(called a batch) into the machine and then executing the programs for each job in the batch.
 - This approach does not allow users to interact with programs while they operate.
- **Timesharing:**
 - This strategy supports multiple interactive users.
 - Rather than preparing a job for execution ahead of time, users establish an interactive session with the computer and then provide commands, programs and data as they are needed during the session.
- **Personal Computing:**
 - This strategy supports a single user running multiple programs on a dedicated machine.
 - Since, only one person is using the machine, more attention is given to establishing predictable response times from the system.
- **Dedicated:**
 - This strategy supports real-time and process control systems.
 - These are the types of systems which control satellites, robots and air-traffic control.
 - The dedicated strategy must guarantee certain response times for particular computing tasks or the application is useless.