CS31 Worksheet: Week 10: Operating Systems

If you were asked to design a layer between user programs and the hardware, what might your layer provide?

- What sort of services might the programs you've written need?

- (Discuss with your neighbors.)

Why is it not ideal to have only a single program available to the hardware?

A. The hardware might run out of work to do.

B. The hardware won't execute as quickly.

C. The hardware's resources won't be used as efficiently.

D. Some other reason(s). (What?)

How many programs do you think are running on a typical desktop computer?

A. 1-10

B. 20-40

C. 40-80

D. 80-160

E. 160+

What sort of information might the OS need to store to keep track of a running process?

- That is, what MUST an OS know about a process?

- (Discuss with your neighbors.)

The operating system kernel…

A. Executes as a process.

B. Is always executing, in support of other processes.

C. Should execute as little as possible.

D. More than one of the above. (Which ones?)

E. None of the above.

How might the OS forcibly take control of a CPU?

A. Ask the user to give it the CPU.

B. Require a program to make a system call.

C. Enlist the help of a hardware device.

D. Some other means of seizing control (how?).