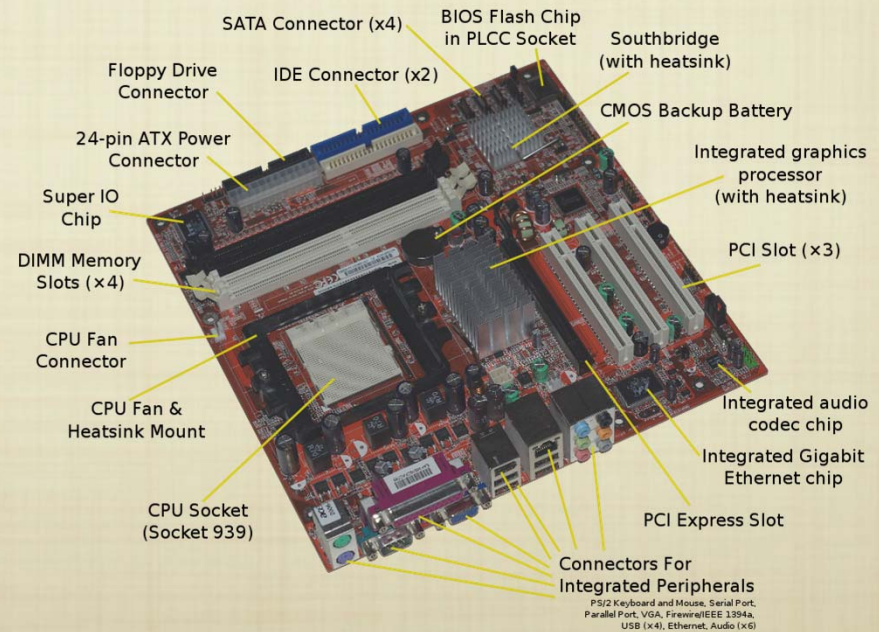
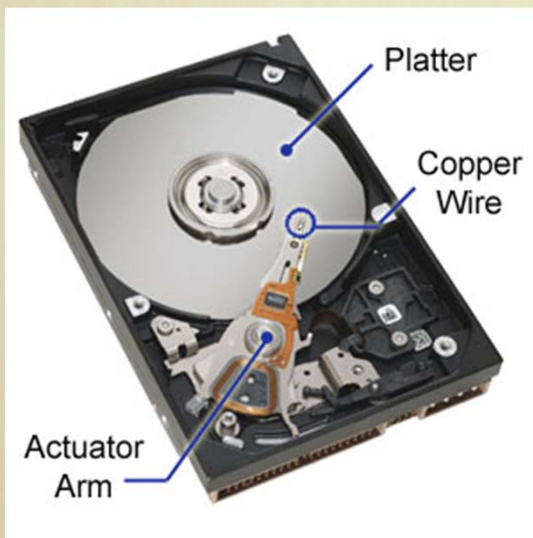
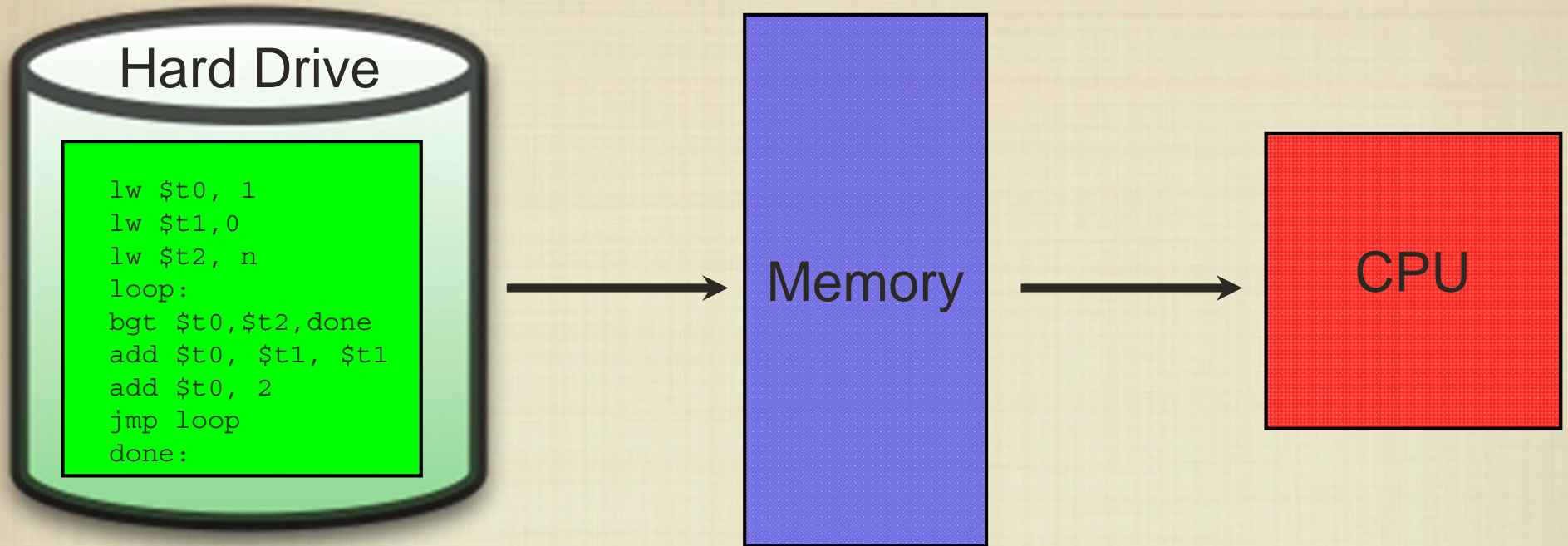


Introduction to Python II

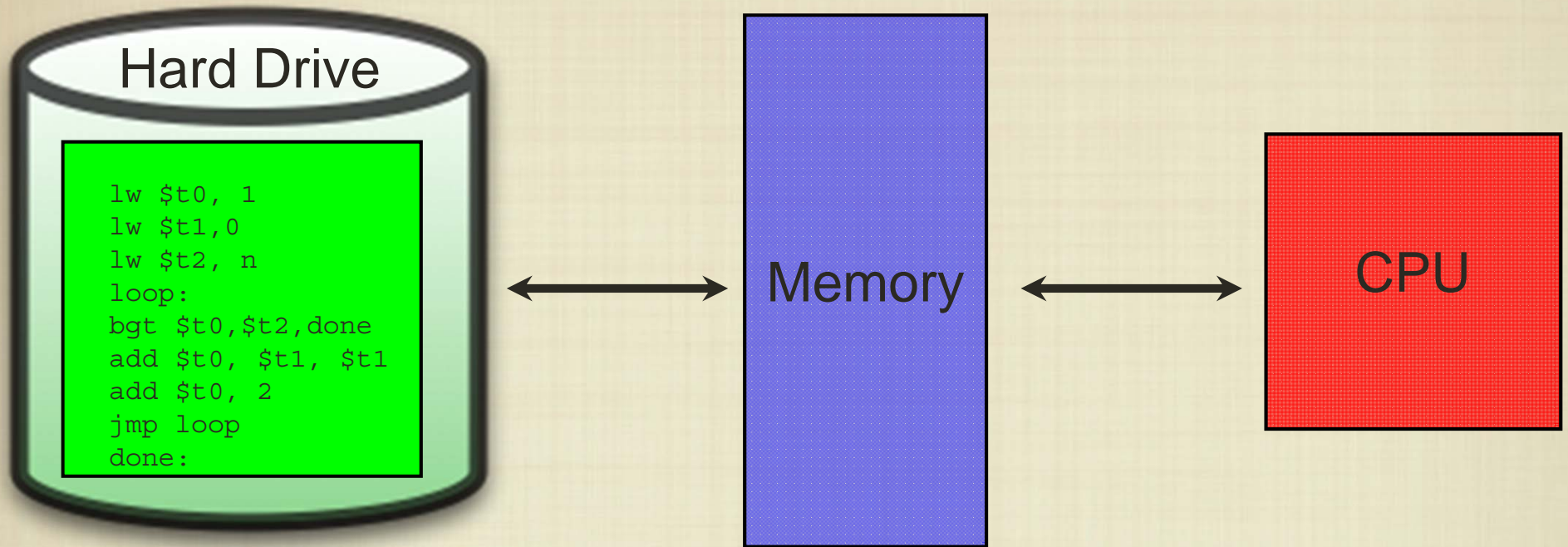
Fall 2013

Carola Wenk

Where do programs “live”?

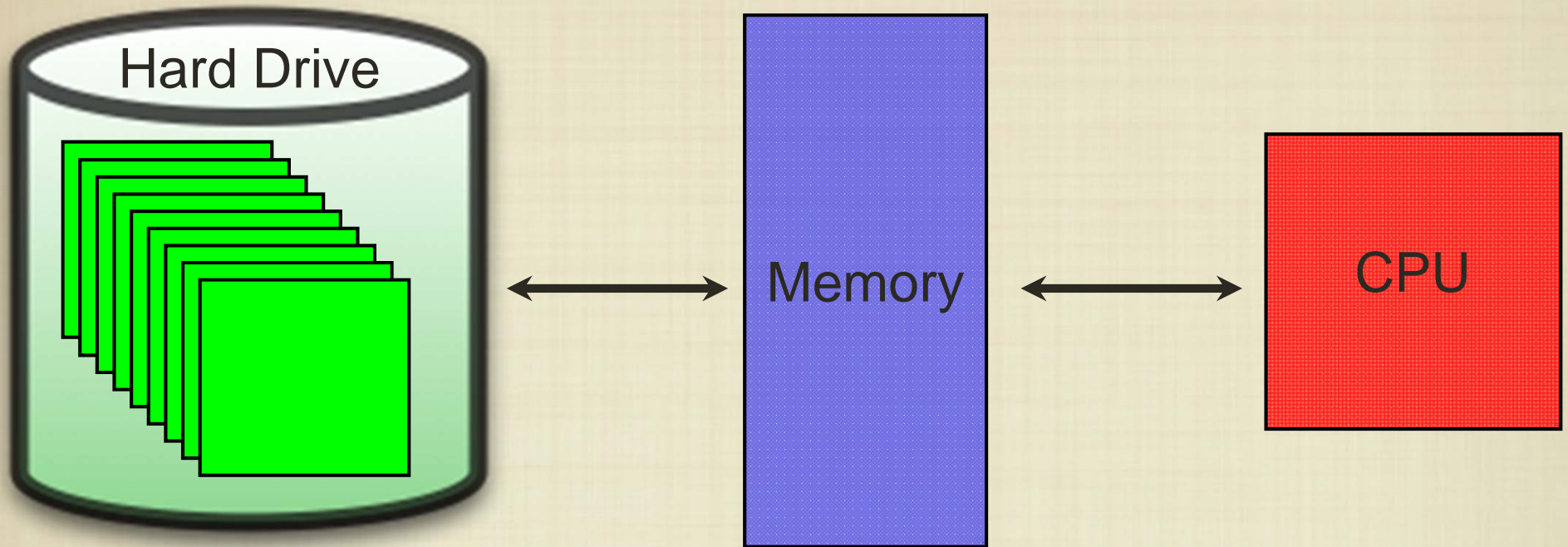


Where do programs “live”?



How is the program executed once it is stored on the disk drive?

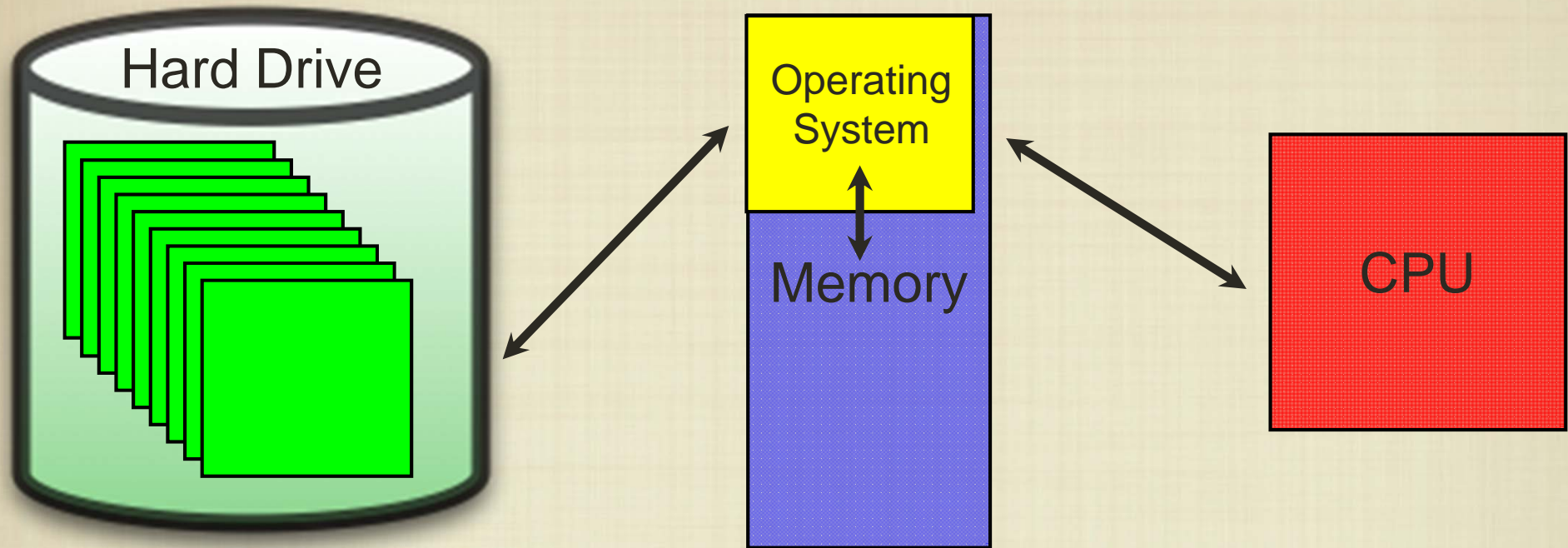
Where do programs “live”?



How is the program executed once it is stored on the disk drive?

How do we choose a program to run?

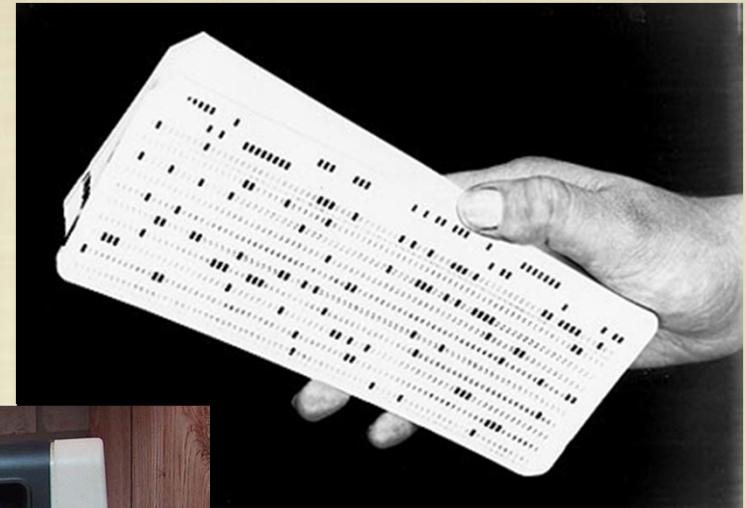
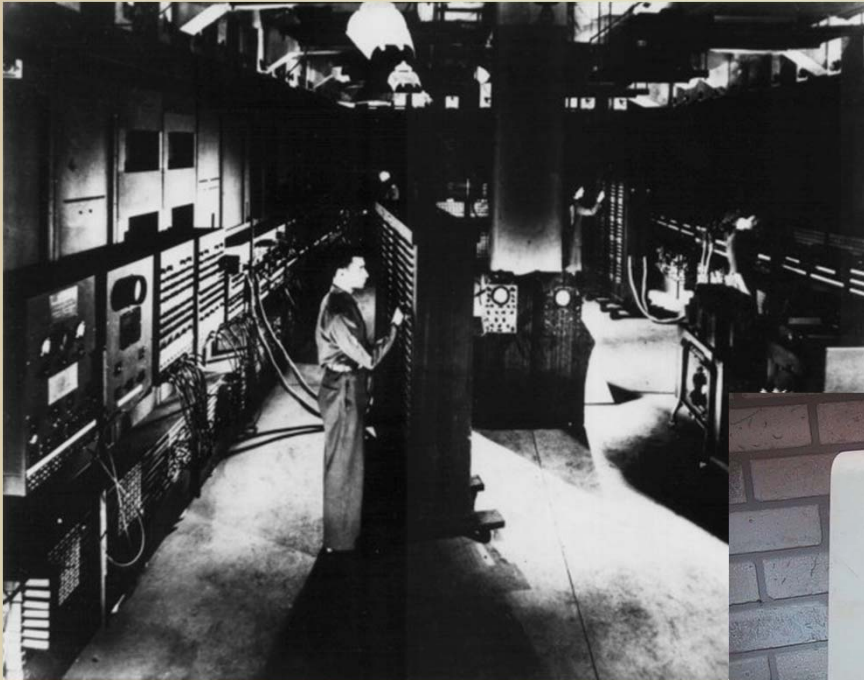
Where do programs “live”?



On modern computers, a program called the operating system is in charge of running one or more programs on the CPU.

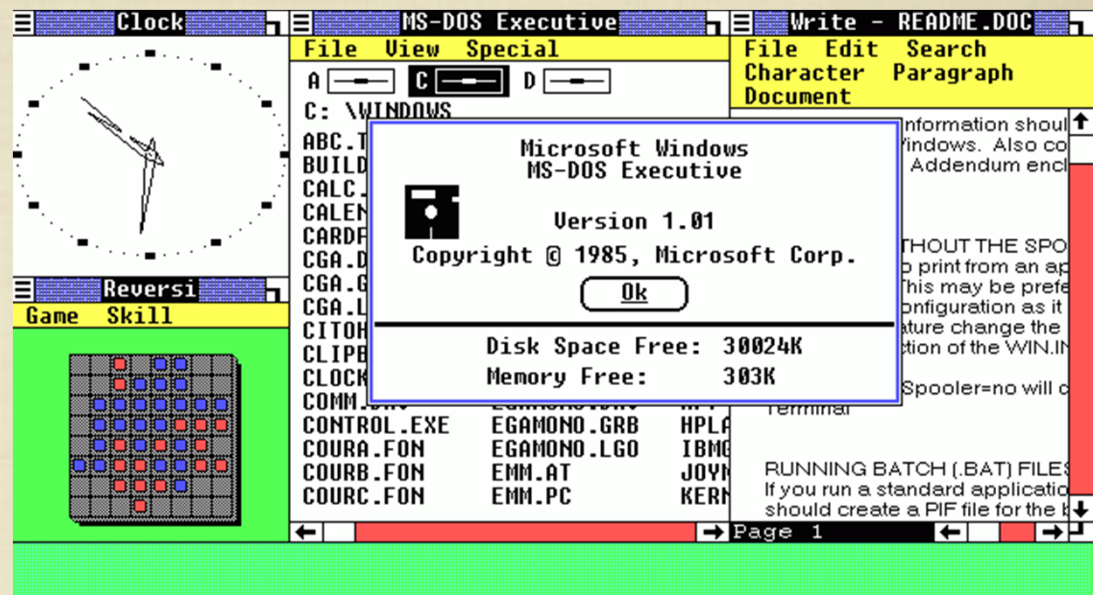
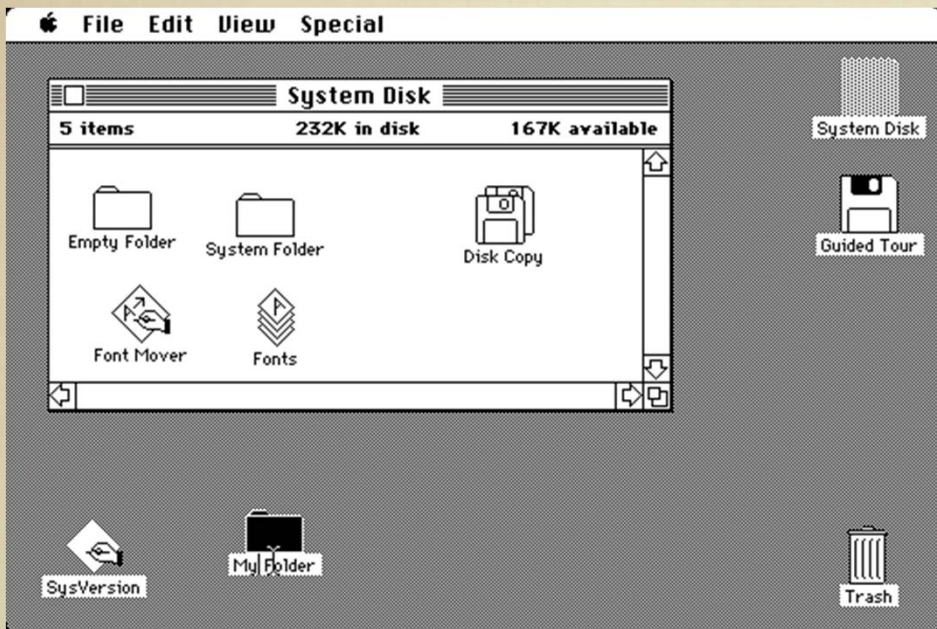
Each software program being executed is given appropriate access to system resources (e.g., memory, disk, I/O).

Operating System History



Computer programs were first manually loaded and executed on mainframes. “Terminals” became popular in the 1970s as CRTs became inexpensive.

Operating System History



In the early 1980s, the concept of a graphical user interface became an integral component of operating systems.

The graphical component of software is just a layer that is useful for input/output.

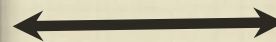
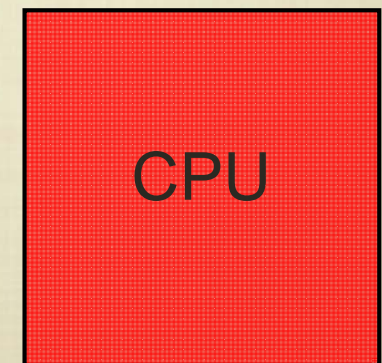
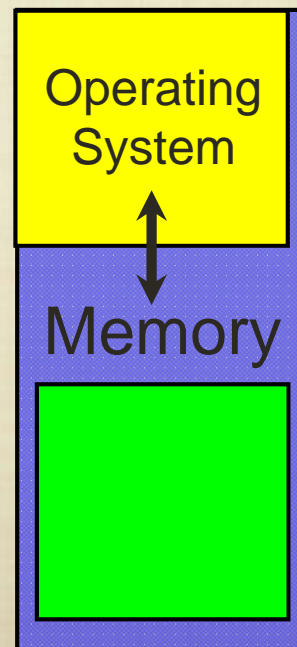
Where do programs “live”?

```
sum = 0
for i in
range(1, n+1, 2):
sum += i
```

Compiler

Interpreter

The compiler / interpreter is specific to an operating system and creates binary executables in the correct format.



Python Programming

```
sum = 0
for i in range(1, n+1):
    sum += i
```

or

```
>>> 2+24
26
```

Python is an “interpreted” language, so each statement is executed one at a time by the interpreter.

