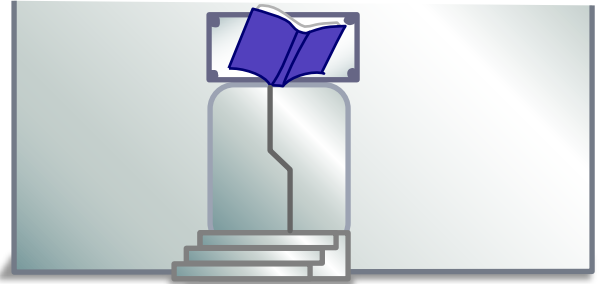# Caches: What Are They For?

For computers, memory accesses are like going to the library,

load word 0x02009AD0
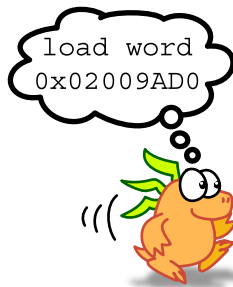
Finding the necessary information in the page of a book,

0x0CA829F0

0x002008...   *0x00200A...*
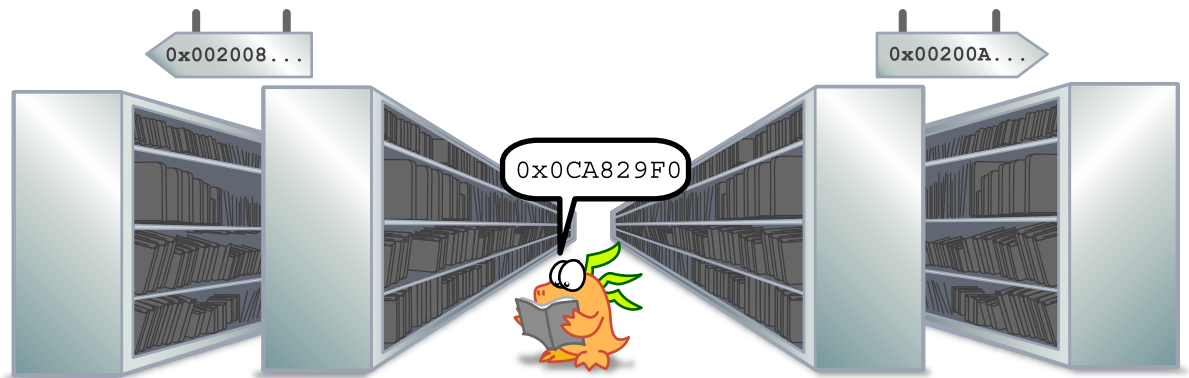
And going back home to do the work involving that information.

0x0CA829F0

Hurry up, will ya?!

Loading...
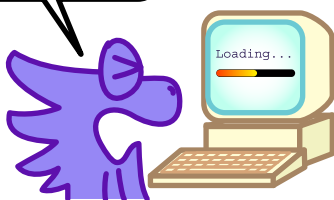
While computers don't mind going back and forth like this for data, it usually means users have to do a lot of waiting.

Almost...
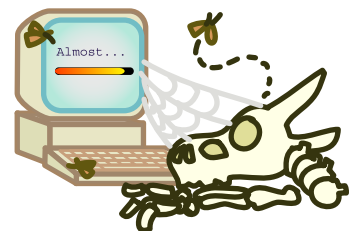
Fortunately for users, computers have caches, which is the equivalent of keeping copies of the books needed on a shelf near the workspace. Through a number of mechanisms, caches give the illusion of being able to access memory very quickly!

Home Sweet CPU

Ketrina Yim