Caches: What Are They For?

For computers, memory accesses are like going to the library, finding the necessary information in the page of a book, and going back home to do the work involving that information.

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

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!