Let's imagine the Dickinson library, where we have multiple tasks and processing ways. The Dickinson Library has multiple storage places where the books are placed. So for example, you walk into the library and go to the quiet section, where there are multiple shelves with books. The shelves here represent the main memory as all of the data are stored there. However, accessing a specific book can be challenging, as the more books you have, the more time it would take to find a specific book. In the library case, the books with the same topic are placed together. This exact way aligns with Spatial locality, as we can imagine being able to locate where the topic is, means the related topic is nearby which is also helpful for cache later on.

The library also keeps track of the books needed and at what time, for example during a fall semester, the books needed the most are fall semester course-related books. Therefore, the library knows what books are demanded and when. In this case, the library knows exactly where these books are, as they have been accessed more than one time in a short period. Which is exactly how Temporal Locality works. This leads us to the place that the library has, which is called the "cache" or in Dickinson Library, it is the entrance desk. The library keeps these demanded books close by to ensure easier access and less time consumed. Now for example, a student walks into the entrance desk and asks for a specific book, and in this case, if it was a popular demanded book, the librarian should be able to provide it easily from the "cache" and in this case, this is called a cache hit. However, if the student asked for a book that was not requested frequently and therefore was not at the "cache" or the "entrance desk", the librarian would look for that book within the shelves "main memory" which ultimately would take more time than if it was at the entrance desk and this is called a cache miss.

Following on with what was said, who is the librarian who is doing all that work? In this case, the librarians are the "registers" as they are the ones who are doing the book grabbing "fetching" whether it is from the entrance desk "cache" or from the shelves "main memory". The person who runs all of these staff in the library is the pro staff, who manage the librarians and do the calculations to ensure the efficiency and the number of books and make sure that the work done by the student staff or the librarians is well done. In this case, they are the ALU of the library. Understanding this metaphor will ensure understanding of the process within the CPU or in this case within the library. In the end, we saw how the shelves (main memory) and the Entrance Desk (cache) are being used by the librarians (registers) and under the control of pro staff (ALU) to ensure quick and correct access to books (data).