Lab 6 Summary:

In this lab assignment, I implemented three different algorithms. These being: First-In-First-Out (FIFO), Least Recently Used (LRU), and Optimal (OPT). My understanding of these algorithms was not the greatest at the beginning of the lab, I understood how they worked but I didn't fully grasp the how. The FIFO algorithm decides which pages to evict based on their arrival time. This replaces the page that has been in the memory for the longest amount of time. In the code I wrote I compared the "time_of_arrival" and identified which page entered the memory first. In LRU, I looked at the most recent time of access and used the "time_of_access" field of each page frame and selected the oldest one to replace it. The hardest one to grasp was OPT, In this algorithm I essentially search through the future page access in the array ("Page Accesses") to check when each page would be needed again.

Through testing, using, and building the algorithms and testing patterns, I saw how each algorithm functions and performs. The results show that OPT is the best and LRU comes in second. The lab overall provided a great bit of detail into understanding how the algorithms work in the real world.