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4/13/2021

Section 5

Cpre 308 – Lab 6 Summary

### Lab 6 Summary

This lab required us to write three separate page replacement algorithms, which were First In First Out, Least Recently Used, and Optimal. For FIFO and LRU I iterated through the page frames to determine which page was put in first or accessed least recently. These algorithms have a runtime of  $O(n)$ . For Optimal we had to check to see if the frame was going to be used again in the future and if that was the case, we then had to find its most recent use and replace it. However, if a frame was never going to be used again, we had to remove that frame to free up memory. To do these checks I used a series of nested for loops. As a result the worst case runtime for this algorithm was  $O(n^2)$ . As result of doing this lab I now have a better understanding of how a computer goes about using, or freeing up memory.