Khushveen Kaur Umra

CprE 308 Sec 2

25th November 2022

Lab 6 Report

For this lab, I learned about the different kinds of page replacement algorithms. I learned about writing a program that simulates three virtual memory page replacement algorithms, Optimal (OPT), Least Recently Used (LRU) and First-In-First-Out(FIFO). This lab showed me the different outcomes of each algorithm in different access sequences, and me understand the reason as to why some of the algorithms is more preferred than the other. I also got to learn about a page fault, where the OS brings the new page to the memory and records the last access and memory arrival times to the same value which is the current time. Overall, this lab really helped me to put my theoretical knowledge of page replacement algorithms to practical use.

Lab Outcome:

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The average number of page faults for FIFO with Random Access is 8760.
The average number of page faults for LRU with Random Access is 8759.
The average number of page faults for OPT with Random Access is 5925.
The average number of page faults for FIFO with Sequential Access is 10000.
The average number of page faults for LRU with Sequential Access is 10000.
The average number of page faults for OPT with Sequential Access is 8830.
The average number of page faults for FIFO with LR Workload Access is 883.
The average number of page faults for LRU with LR Workload Access is 874.
The average number of page faults for OPT with LR Workload Access is 611.
bash-4.2$
```