

Lab 7 - Report

Summary:

In this lab we explored different kinds of page replacement algorithms. They are Optimal (OPT), Least Recently Used (LRU) and First-In-First-Out (FIFO). Using the given example we were required to implement the page replacement algorithms and an additional custom algorithm. This custom algorithms was to beat the LRU algorithm on the Locality of reference access sequence. This lab showed us the different outcomes of each algorithm in different access sequences. And helped us understand the reason why/why not is each algorithm preferred.

Running instruction:

```
make clean && make && ./main
```

Output:

```
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 CUST with Random Access is 7629.

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 CUST 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.
The average number of page faults for CUST with LR Workload Access is 864.
```