Chase Brown

Operating System Concepts Lab-03

Simulating Page Replacement Algorithms

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==================================================================
     Page Replacement Algorithm Simulation ( Frame Size: 128 )
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                                 Page Fault Rates
Algorithm   Total Page Faults   2000   4000   6000   8000   10000
FIFO        9653                0.965  0.966  0.966  0.966  0.965
LRU         9651                0.966  0.966  0.965  0.966  0.965
LFU         9682                0.968  0.97   0.97   0.969  0.968
OPTIMAL     7773                0.826  0.795  0.785  0.782  0.777


==================================================================
     Page Replacement Algorithm Simulation ( Frame Size: 256 )
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                                 Page Fault Rates
Algorithm   Total Page Faults   2000   4000   6000   8000   10000
FIFO        9334                0.935  0.935  0.934  0.934  0.933
LRU         9331                0.936  0.935  0.933  0.934  0.933
LFU         9364                0.936  0.936  0.936  0.936  0.936
OPTIMAL     6934                0.788  0.732  0.71   0.7    0.693




==================================================================
     Page Replacement Algorithm Simulation ( Frame Size: 512 )
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                                 Page Fault Rates
Algorithm   Total Page Faults   2000   4000   6000   8000   10000
FIFO        8752                0.894  0.885  0.877  0.878  0.875
LRU         8752                0.891  0.883  0.877  0.877  0.875
LFU         8747                0.891  0.882  0.878  0.875  0.875
OPTIMAL     5909                0.788  0.668  0.621  0.606  0.591




==================================================================
     Page Replacement Algorithm Simulation ( Frame Size: 1024 )
==================================================================
                                 Page Fault Rates
Algorithm   Total Page Faults   2000   4000   6000   8000   10000
FIFO        7604                0.821  0.789  0.768  0.766  0.76
LRU         7585                0.818  0.787  0.769  0.765  0.758
LFU         7583                0.817  0.78   0.769  0.763  0.758
OPTIMAL     4735                0.788  0.636  0.53   0.507  0.474
```