Assignment : 9

List of Topics: Page replacement algorithms

Memory Management

Page replacement algorithms simulation

Reference Link :
https://www.google.com/amp/s/www.geeksforgeeks.org/page-replacement-algorithms-in-operating-systems/amp/

Exercise:

1. Review the page replacement algorithms FIFO, LRU, and OPT.
2. Use the simulator at https://nicomedes.assistedcoding.eu/#/app/os/page_replacement to understand the performance these page replacement algorithms. Explain why they perform differently.
3. Write a program to implement these algorithms. Generate a random set of inputs (no of frames K=4/8/16, memory reference strings of length L=64. For each such inputs, output the Fault Rate F and the average <F> over a number of random reference strings for each K.
4. Run the nicomedes simulations for the same set of inputs and compare your results with those obtained in the *nicomedes* simulation.

Submission:

1. Submit assignment with the report consists of an input file and output file with proper explanation of each output of all the exercises in pdf format.

2. Add all the outputs and a brief description of the commands used in the given demo scripts in the report.

3. Submitted code in a report

5. **Submission Deadline: (Tuesday, 22-Nov-2022), 23:59:00**
6. Late submission will result in 0 scores.