PAGE REMOVAL SIMULATOR

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INTRODUCTION

The Page Removal Simulator program was made to simulate the action of page faults and page removal from memory using different page removal schemes

The two page removal methods used in this program are FIFO (First In First Out) and LRU (Least Recently Used)

The program simulates Demand Paging where only parts of jobs are stored in memory and other pages are swapped in only when needed and how they are swapped in are determined by the page removal method

FIFO removes the page that has been in memory the Longest

LRU removes the page that has was least recently used

INSTALLATION

To install the Page Removal Simulator program, please select the PageRemovalSimulator.jar and/or the PageRemovalSimulator.exe file(s),

Then either move, or copy and paste them to wherever you wish to store them on your computer

Installation Requirements:

- Note: both the .jar and .exe files contain the same program and do not operate differently, it is only meant as two different options
- In order to use the .jar version, you must have at least Java 8 installed
- In order to use the .exe version, you must be on a windows computer

FEATURES

The Page Removal Simulator program allows the user to simulate different page removal methods (FIFO and LRU) as well as see the results of method with the failure rate

The failure rate is the amount of faults divided by the total number of page requests expressed as a percent

The user sets the amount of total frames available in the memory

User can set 2 to 5 frames of memory

Once the frames are set the user enters in a job that they want to add and then press either the FIFO or the LRU button in order to run one of those methods and add the job accordingly

IMPORTANT NOTES

The program is only designed to handle FIFO and LRU one at a time, meaning that if the user starts with using FIFO, continue using FIFO until you are done
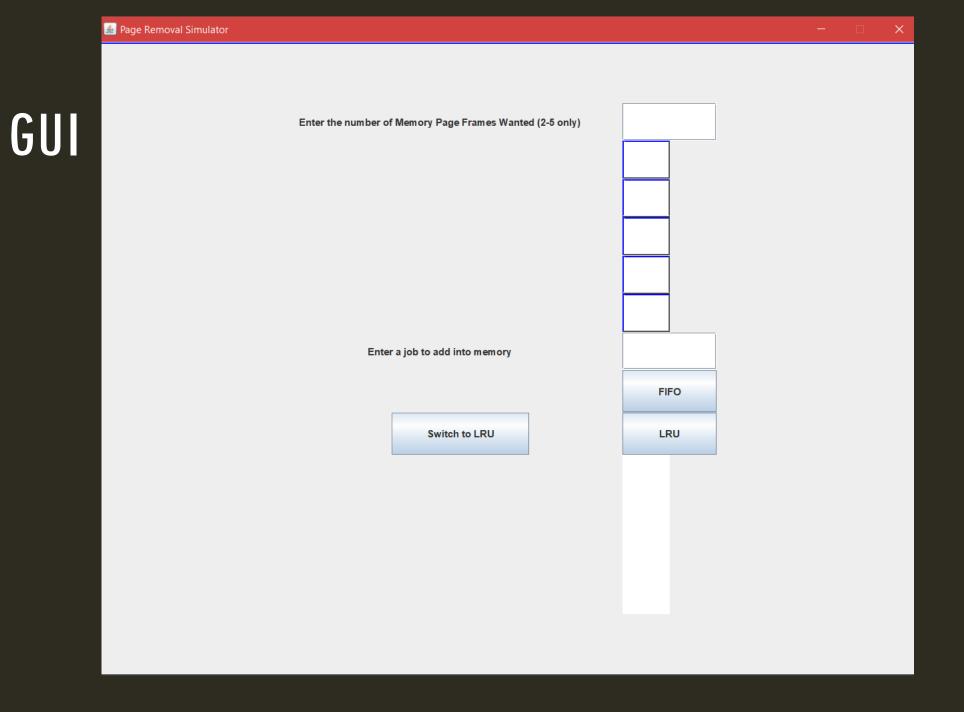
Do not mix pressing both the FIFO and LRU buttons

In order to switch between each please restart the program

In order to use LRU, please click the "Switch to LRU" button after entering the frame number and before entering a job and clicking LRU, this sets counters in the program to coincide with LRU and not FIFO
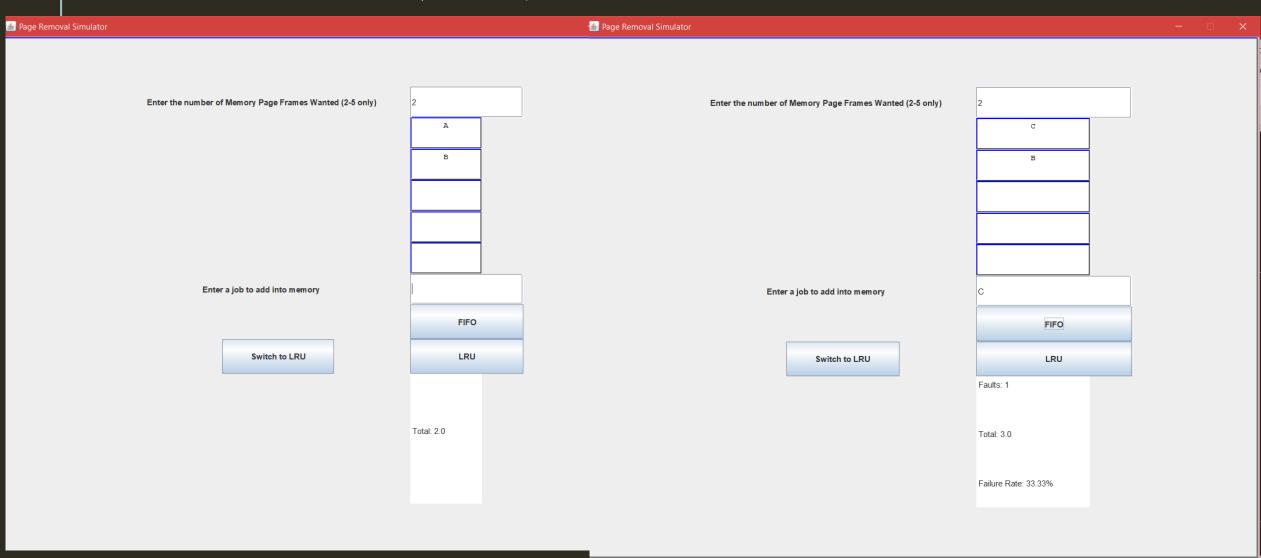
LRU will not work unless this button is clicked first

Because the way the program is designed, the initial additions to fill the memory are not counted as page faults, only after the memory is fill and pages start getting swapped are page faults recorded

The initial additions are treated as the setup of the program

GUI

SHORT EXAMPLE (FIFO)

SHORT EXAMPLE (LRU)