Operating Systems Lab Assignment - 5
Readme

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1. Extract the zip file and then run the code in any code editor platform.
2. The code represents the implementation of the demand paging for virtual memory management.
3. The following were taken as input
   i) Total number of processes (k)
   ii) Virtual address space – maximum number of pages required per process (m)
   iii) Physical address space – total number of frames in main memory (f) [m > f]
   iv) Size of the TLB (s) [s < f]
   In order to change the inputs, update the vm.sh file accordingly.
4. For running the code, open the terminal and run **sh vm.sh** or
   ```
   g++ VM.cpp -o vm
   clear
   ./vm 4 5 3 2
   ```
   in windows.
5. A new text file will be created which will contain the output of the code. It shows the termination message and also prints the total number of page faults for the processes.
6. The data structures used include vectors and maps (hash tables).
7. The implementation takes random numbers to simulate the process dispatch during CPU scheduling and assigns the required number of pages of that process and allocates frames proportionately.
8. The implementation takes care of the TLB hit, TLB miss and invalid entry(in case the referred page is not found in the page table)
