CSC 456 Operating Systems
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Programming Assignment 2
Part 2 Memory Manager

Description of Program

This program is a simulation of a memory mapping system for paging. The requirements for the assignment required us to just take an address in decimal form and then converts the address into both a page number and an offset into that page. These are printed out.

Description of algorithms and libraries used

There are no special libraries used in this program.

A description of the algorithm can be found in the description of functions and program structure.

Description of functions and program structure

This program is a procedurally designed program. It consists of three individual functions including main. These functions are all contained in the memman.c file.

The first function entitled calculate_page_number is a simple function which takes an unsigned long integer as a parameter and simply returns that parameter divided by the PAGE_SIZE. This tells us what page number the address is on.

The second function is entitled calc_offset. This function takes the same unsigned long integer and then computes the modulus.

Description of testing and verification process

The way I tested this program was two run it several different times and examine the output by hand. I manually calculated what the values should be and compared to what my program printed.

Data

There was not really any data collected for this project. The only data that the program produces is its output which can be redirected to a file.

Analysis of Data

The only analysis of the data that I did was a manual observation of the file.

Description of Submission

The contents of the submission of this program are as follows:

- memman.c -- This file contains all of the functions for the program.