CS 518 Assignment 2

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Intro to the code:

Memory resource: named 'memory_resource', a char array of 8 MB

Headers : One header for each page and one header for each chunk of memory.

my_malloc_init() is called during the first call to myallocate(). The functions initializes the page headers, registers the signal handler and creates a swap file on secondary storage.

Data is written to the swap file in the form of pages. Hence, there are headers for each page in the swap file as well.

loadPage() and allocateMemory() are helper functions which are called in myallocate().
loadPage() is used to load the pages corresponding to the current thread at the beginning of the memory resource.
allocateMemory() is used to find an empty chunk of memory in the memory resource and returns the starting address.

Instructions to run the code:

Code tested on java.cs.rutgers.edu

My_malloc.c, my_malloc.h, demo.c are the relevant files for this assignment.

To run the assignment, use the following commands

Make
build/demo