Authors:
Youssouf Ouedraogo -> net id: yo
Michael Mlot -> net id: mfm184

CS214 - Asst1 - Readme

Design:

In this assignment we were tasked with implementing our own versions of our system's malloc() and free() functions that provide the user basic functionality and handled basic error handling.

Mymalloc.c - Provides to us the new malloc and free functions, as well as system errors if the user is trying to access too much memory. The memoryBlock that we are using to carry out operations is a static array with a max size of 4096 bytes. Our metadata struct lets us know whether a particular block is free, or if has already been allocated. If allocated, contain the size of the block it refers to.

Memgrind.c - Contains the operations that get passed to mymalloc.c. Each of the individual jobs that we created call upon memgrind.c to malloc() a certain amount of bytes and then free() them, in several different ways. After 100 iterations of these jobs have happened, the average completion time of each is printed out, representing how long it took our system to perform the jobs.

Mymalloc.h - Our header file that took care of having malloc() and free() being references to our mymalloc() and myfree() functions.

Workload Data: