Memory allocator

Noha Wong, Quoc-Trung Vuong

October 10, 2016

Part I
Structure

For the implementation we have used a doubly linked list of free blocks. Each block (allocated or free) have a meta data composed of :

- one pointer to the next free block

- one pointer to the previous free block

- one value representing the size of your free block

The feature we have implemented is :

- allocation using First Fit management of free block

- allocation using Best Fit management of free block

- allocation using Worst Fit management of free block

- the safety check(Forgetting to free memory, Calling free() incorrectly, Corrupting the allocator metadata)

- alignement of blocks (pointer value is equal to a multiple of size)