Analysis

(1) unsigned int init_allocator(unsigned int _basic_block_size,
unsigned int length);

I use a pointer to the pointer to the Node which is like an array. Every different elements in the array is a pointer to the Node. If the _length can seperate to different values of power of two, and then we allocate a new memory for this size of node.

(2) int release_allocator();

I use free to free every memory I allocate.

(3) Addr my malloc(unsigned int length) {};

First I rounded the _length to the nearest power of two value, and then find the proper node to seperate memory for this. In this process, we need to split the larger size to smaller size using buddy system.

(4) int my free(Addr a) {};

Adversely using buddy system to merge freed buddy nodes.