Testcases:

testcases are described in tests.c

there are cases for :

double free : gives an error stating the ptr has been freed

freeing an unallocated chunk : gives error stating so

freeing a ptr + integer: says the pointer was not allocated by malloc

freeing a pointer outside of the heap : corrupted memory error

ALL of these will give a line number and file number for where error occured.

Leaving an allocated chunk unfreed : at exit get an error that gives line numbers and the file of where the chunks were not freed.

Passing a null pointer to free: error null ptr

Passing a negative value to malloc size : error negative value

Passing a 0 value to malloc : error shouldnt allocate 0 bytes memory