COMP 2401 -- Assignment #3 Grading Scheme
Fall 2014

Memory Hunter functions: 80%

8 marks: mh_init function
- 5 marks: allocates memory for all heap blocks
- 3 marks: initializes number of blocks used

5 marks: mh_cleanup function frees memory for heap blocks

20 marks: mh_alloc function
- 5 marks: uses malloc to allocate new memory
- 8 marks: initializes every field in next block structure (2 marks each field)
- 2 marks: updates number of blocks used
- 5 marks: returns pointer to new memory

14 marks: mh_dealloc function
- 6 marks: finds block containing given address
- 5 marks: frees memory at given address
- 3 marks: sets block to unreserved

12 marks: mh_count function
- 4 marks: examines every block
- 5 marks: keeps running total of bytes used
- 3 marks: returns total

9 marks: mh_dump function
- 4 marks: examines every block
- 5 marks: prints out data for each block

12 marks: mh_collect function
- 4 marks: examines every block
- 5 marks: for each block, frees memory at address in block
- 3 marks: for each block, sets block to unreserved

Additional testing: 20%

Five new data types tested with correct results (4 marks each), including calls to mh_alloc, mh_dealloc or mh_collect, mh_dump, and mh_count

Deductions and Bonus marks

- Up to 50 marks deduction for any of the following:
  - the code does not compile using gcc in the VM provided for the course
  - unauthorized changes have been made to the code provided
  - the code cannot be tested because the program doesn't run
- Up to 20 marks deduction for any of the following:
  - the readme file is missing
  - global variables are used
  - structures are passed by value
  - program is not broken down into multiple reusable, modular functions
- Up to 10 marks deduction for missing comments or other bad style (non-standard indentation, etc.)
- Up to 5 bonus marks for fun and creative additional features