

### **COP 3502 Suggested Program Edits: DMA, Linked Lists (Week 2 Programs)**

- 1) Add basic error checking to gridgame.c, which uses static memory allocation. Also, instead of adding an X to each location, make sure an X only prints in the current location.
- 2) To the file dynarrayofpointers.c, add a function that takes in pointers to two struct points and returns the Manhattan distance between the two points. Write another function which takes in a pointer to a struct point and a double pointer to a struct point (storing an array of points) and returns the longest Manhattan distance between the first point and any of the points in the array. Test your function with a small set of points.
- 3) To linkedlist1.c, linkedlist2.c or linkedlist3.c add a function that takes in a pointer to the front of a linked list and returns the maximum value stored in the list.
- 4) To linkedlist1.c, linkedlist2.c or linkedlist3.c add a function that takes in a pointer to the front of a linked list and returns the sum of value stored in the list.
- 5) To linkedlist1.c, linkedlist2.c or linkedlist3.c add a function that takes in a pointer to the front of a linked list and an integer value add, and then adds that value to each node in the linked list. The function should not make any structural changes to the list.