

CS163 Test Plan

Develop the test plan: *For each member function that you plan to write, think about how to test it – what flow of control exists in the member function and how would you test out all conditions:*

Test Case(s)	Expected Result	Verified? (yes/no)
add_new - add new resolution to an empty list.	Function returns true, resolution added.	
add_new - add new resolution to a list with members.	Function returns true, resolution added.	
delete_resolution - delete from empty list.	Return false.	
delete_resolution - delete from a 1 member list.	Function deletes node, and sets pointers to null, then returns true.	
delete_resolution - delete from beginning of list.	Function deletes first node, sets head to 2nd node, returns true.	
delete_resolution - delete from middle of list.	Function connects previous->next to current->next, deletes current. Returns true.	
delete_resolution - delete from end of list.	Function deletes last node, sets previous->next to null, tail = previous. Return True.	
delete_resolution - invalid resolution name.	No match, return false.	
add_task - invalid resolution name.	No match, Return false.	
add_task - insert in empty list.	Create a new new task insert into head. Set head->next to null. Return True.	
add_task - insert at beginning.	Create a new node, set the nodes next pointer to head, set head to new node. Return true.	
add_task - insert in middle.	Find smaller priority task, and insert before using previous pointer. Return true.	
add_task - insert at end.	Smallest priority task is added as new, tail points to new, and next is null. return true.	
display_tasks - empty resolution list.	Return False.	
display_tasks - resolution has no tasks.	Return False.	
display_tasks - No name match.	Return False.	
display_tasks - Populated list.	Tasks displayed to user, return true.	
display_resolutions - Empty List.	Return False.	
display_resolutions - Populated list.	Display each node name to user, return True.	
resolution_match - Name not in list.	Return False.	
resolution_match - upper & lower case, or spaces in name.	Function is private, return pointer of matching node to wrapper function.	

Verify correctness: Using the above test plan, create a test program that tests the interactions of all functions together.