

## 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)
Create room (Read-in) - user tries to input a duplicate	Return a failed status	
Create accessory (Read-in) - user tries to enter “ ” versus “light-switch”	Retry input from user	
Retrieve room function is called and user attempts to retrieve a non-exist room	Return a false Boolean-value to the calling routine	
Retrieve accessory from a room but room does not exist	Return a false Boolean-value to the calling routine	
Display_all_accessory from a single room function is called but room does not exist	Return a false Boolean-value to the calling routine	
Traverse_room LLL is called but LLL room is empty	Return a false Boolean-value to the calling routine	
Remove_room function is called but user misspelled the room name	Return a false Boolean-value to the calling routine. In calling routine, message the user no matching room found	
Insert_accessory function is called but accessory already exists	Return a false Boolean-value to the calling routine and message the user accessory already exists	

<b>Insert_room function is called with NULL values</b>	<b>Check first for NULL values and return a false Boolean-value to the calling routine. Messaging the user in the calling routine failed insertion.</b>	

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