

```
1 #include <stdio.h>
2 #include "../include/ArrayList.h"
3
4 void test_array_list();
5
6 int main()
7 {
8     test_array_list();
9     return 0;
10 }
11
12 void test_array_list()
13 {
14     ArrayList* alist = al_init(4);
15
16     // Display when no elements
17     al_display(alist, "Display when no elements: ");
18
19     // Insert at the end
20     alist = al_insert_end(alist, 99);
21     al_display(alist, "Insert at the end: ");
22
23     // Insert at the front
24     alist = al_insert_front(alist, 97);
25     alist = al_insert_front(alist, 96);
26     al_display(alist, "Insert at the front: ");
27
28     // Insert in invalid position
29     alist = al_insert_at(alist, 1000, 10);
30     alist = al_insert_at(alist, 1000, -1);
31
32     // Insert at a specific position
33     alist = al_insert_at(alist, 98, 2);
34     al_display(alist, "Insert at a specific position: ");
35
36     // Insert when array is full
37     alist = al_insert_end(alist, 1001);
38     alist = al_insert_front(alist, 1002);
39     alist = al_insert_at(alist, 1003, 1);
40
41     // Reverse the data in list
42     alist = al_reverse(alist);
43     al_display(alist, "Reverse the data in list: ");
44
45     // Delete based on element value
46     alist = al_delete_with_val(alist, 1004);
47     alist = al_delete_with_val(alist, 97);
48     al_display(alist, "Delete based on element value: ");
49
50     // Delete at an invalid position
51     alist = al_delete_at(alist, 10);
52     alist = al_delete_at(alist, -1);
53
54     // Delete at a specific position
55     alist = al_delete_at(alist, 2);
56     al_display(alist, "Delete at a specific position: ");
57
58     // Delete at the front
59     alist = al_delete_front(alist);
60     al_display(alist, "Delete at the front: ");
61
62     // Delete at the end
63     alist = al_delete_end(alist);
64     al_display(alist, "Delete at the end: ");
65
66     // Delete when list is empty
67     alist = al_delete_end(alist);
68     alist = al_delete_front(alist);
69     alist = al_delete_at(alist, 1);
70 }
```