```c
1  // Datatype of the elements of data array
2  typedef int TYPE;
3
4  typedef struct ArrayList
5  {
6      int length;
7      int max_length;
8      TYPE* data;
9  } ArrayList;
10
11 ArrayList* al_init(int);
12 ArrayList* al_insert_end(ArrayList*, TYPE);
13 ArrayList* al_insert_front(ArrayList*, TYPE);
14 ArrayList* al_insert_at(ArrayList*, TYPE, int);
15 ArrayList* al_delete_front(ArrayList*);
16 ArrayList* al_delete_end(ArrayList*);
17 ArrayList* al_delete_at(ArrayList*, int);
18 ArrayList* al_delete_with_val(ArrayList*, TYPE);
19 ArrayList* al_reverse(ArrayList*);
20 void al_display(ArrayList*, char*);
```