

Two alternative methods that we have chosen for replacing the integer array are doubly linked list and linked hash map.

### **Doubly linked list**

The main advantage and disadvantage for using doubly linked list are described below. The main advantage of using doubly linked list is that both parking list and tour list can be traversed in both directions. In such a way, the program can be run more efficiently than the one using integer array. However, the disadvantage is that the doubly linked list requires more space than the integer array, as it needs extra space to store two pointers.

### **Linked hash map**

Same as the doubly linked list, the main advantage for using linked hash map is that it has the benefit of allowing predictable iteration order. However, the main disadvantage is that it requires the increased memory usage and high insertion cost.