

```
public class List {  
    int[] a;  
    int lastItem;  
  
    public List() {  
        a = new int[10];  
        lastItem = -1;  
    }  
  
    public void insertItem(int newItem, int location) {  
        int i;  
  
        if (lastItem + 1 == a.length) {  
            int[] b = new int[2 * a.length];  
            for (i = 0; i <= lastItem; i++) {  
                b[i] = a[i];  
            }  
            a = b;  
        }  
        for (i = lastItem; i >= location; i--) {  
            a[i + 1] = a[i];  
        }  
        a[location] = newItem;  
        lastItem++;  
    }  
}
```