

作业3 参考答案 (by 薛正康)

P105-11

```
template<class T>
void arrayList<T>::push_back(const T& theElement) {
    if (listSize == arrayLength) {
        changeLength1D(element, arrayLength, 2 * arrayLength);
        arrayLength *= 2;
    }
    element[listSize] = theElement;
    listSize++;
}
```

//内存够时复杂度为 $O(1)$, 否则复杂度为 $O(n)$,

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```
template<class T>
void arrayList<T>::pop_back() {
    if (listSize == 0) {
        cout << "There is no element!\n";
        return;
    }
    listSize--;
}
```

//复杂度 $O(1)$

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```
template<class T>
void arrayList<T>::reserve(const int& theCapacity) {
    if (theCapacity > arrayLength) {
        changeLength1D(element, arrayLength, theCapacity);
        arrayLength = theCapacity;
    }
}
```

//需要写出具体实现

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```
template<class T>
void arrayList<T>::clear() {
    listSize = 0;
}
```

//复杂度 $O(1)$