

# 栈的实现 – 属性及构造器

```
public class Stack<T> {  
    private int size;  
    private int capacity;  
    private T[] elementData;  
  
    public Stack(int capacity) {  
        this.size = 0;  
        this.capacity = capacity;  
        this.elementData = new T[capacity];  
    }  
}
```

# 栈的实现 – 方法、函数

```
public T push(T element) {  
    if (size == capacity) {  
        resize();  
    }  
    elementData[size++] = element;  
    return element;  
}
```

```
public T peek() {  
    if (this.size == 0) {  
        // throw Exception  
        throw new IllegalStateException();  
    }  
    return elementData[size - 1];  
}
```

```
public T pop() {  
    if (size == 0) {  
        // throw Exception  
        throw new EmptyStackException();  
    }  
  
    T element = elementData[--this.size];  
    return element;  
}
```

```
public boolean isEmpty() {  
    return this.size == 0;  
}
```