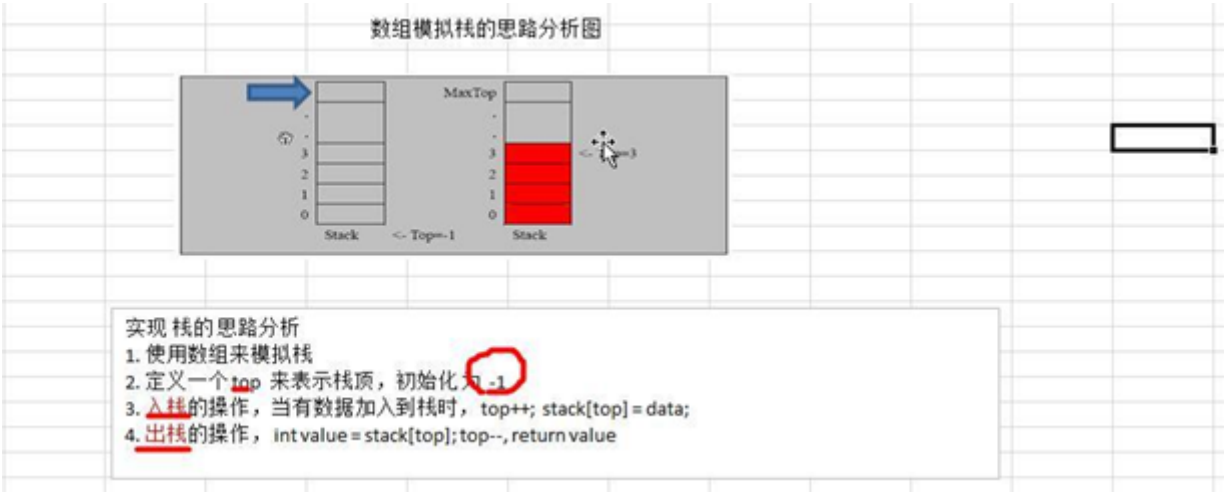
数组模拟栈



代码实现

```
//定义一个 ArrayStack 表示栈
class ArrayStack {
        private int maxSize; // 栈的大小
        private int[] stack; // 数组，数组模拟栈，数据就放在该数组
        private int top = -1;// top表示栈顶，初始化为-1

        //构造器
        public ArrayStack(int maxSize) {
                this.maxSize = maxSize;
                stack = new int[this.maxSize];
        }

判断栈满
        //栈满
        public boolean isFull() {
                return top == maxSize - 1;
        }

判断栈空
        //栈空
        public boolean isEmpty() {
                return top == -1;
        }

入栈
        //入栈-push
```

```
    public void push(int value) {
        //先判断栈是否满
        if(isFull()) {
            System.out.println("栈满");
            return;
        }
        top++;
        stack[top] = value;
    }
```

出栈

```
    //出栈-pop, 将栈顶的数据返回
    public int pop() {
        //先判断栈是否空
        if(isEmpty()) {
            //抛出异常
            throw new RuntimeException("栈空，没有数据~");
        }
        int value = stack[top];
        top--;
        return value;
    }
```

//遍历

```
    //显示栈的情况[遍历栈]， 遍历时，需要从栈顶开始显示数据
    public void list() {
        if(isEmpty()) {
            System.out.println("栈空，没有数据~~");
            return;
        }
        //需要从栈顶开始显示数据
        for(int i = top; i >= 0 ; i--) {
            System.out.printf("stack[%d]=%d\n", i, stack[i]);
        }
    }
```