模版·二分查找

```java
public class BinarySearch{
    public static int binarySearch(int[] arr,int target){
        int low=0;
        int high=arr.length-1;

        while(low<=high){
            int mid=low+(high-low)/2;
            if(arr[mid]==target){
                return mid;
            }else if(arr[mid]<target){
                low=mid+1;
            }else{
                high=mid-1;
            }
        }

        return -1;
    }
    public static void main(String[] args){
        int[] arr={2,5,8,12,16,23,38,56,72,91};
        int target=56;
        int index=binarySearch(arr,target);
        if(index!=-1){
            System.out.println("目标的索引是:"+index);
        }else{
            System.out.println("无法找到目标");
        }
    }
}
```