

#### **Q4. Highest Frequency of Occurrence (10 marks)**

The government plans to determine the most frequently used vehicle brand on the road. They possess a camera capable of recognizing vehicle brands each time a car passes by. Each brand is denoted by a specific character. For instance, if three Toyotas are followed by a Honda, the camera's output would be T T T H. Develop a program to identify the brand with the highest frequency of occurrence.

For example, in the sequence T T T H H, the program will output the brand "T." However, if there are more than two brands with the same frequency, both brands will be displayed in ascending order. For instance, in the sequence T T T C C C, the output should be "C T," and not "T C."

#### **Write a program to:**

##### **Input, in sequence**

- (1) A positive integer,  $N$ , where  $N \leq 10$ , indicating the total count of vehicles passing the camera.
- (2) A sequence of  $N$  characters, representing various vehicle brands.

##### **Output,**

The brand with the highest frequency of occurrence.

If there are multiple brands with the same highest frequency of occurrence, then output all these brands, respectively, in ascending order.

#### 试题 4. 最高出现频率 (10 分)

政府计划确定道路上使用最频繁的车辆品牌。他们拥有一台能够识别车辆品牌的摄像机，每当一辆汽车经过时都能识别出其品牌。每个品牌由一个特定的字符表示。例如，如果有三辆丰田 (Toyota) 跟着一辆本田 (Honda)，摄像机的输出将会是 T T T H。您需要写一个程式来找出具有最高出现频率的品牌。

例如，在序列 T T T H H 中，程式将输出品牌 "T"。然而，如果有两个以上的品牌具有相同的频率，那么这些品牌将会按升序显示。例如，在序列 T T T C C C 中，输出应该是 "C T"，而不是 "T C"。

#### 试写一程式以

##### **依序输入**

- (1) 一个不大于 10 的整数， $N$ ，表示通过摄像机的车辆总数。
- (2)  $N$  个表示各种车辆品牌的字符。

##### **输出**

出现频率最高的品牌。

如有多于一个品牌具有相同的最高频率，则按升序分别显示这些品牌。

**Test Cases:**

Input (输入)	Output (输出)
5 A B B A A	A
4 T H T H	H T
6 T T T C C C	C T
10 A T B T T T B H T T	T
9 A B C D E F G G G	G

7	H
H	
H	
H	
H	
T	
H	
H	