## HASHING DATA STRUCTURE

- Winner of an election
- array of names (consisting of lowercase characters)

  Print the name of candidate that received Max votes
- If there is tie, print lexicographically smaller name.

```
Input:
n = 13
Votes[] = {john,johnny,jackie,johnny,john
jackie,jamie,jamie,john,johnny,jamie,
johnny,john}
Output: john 4
Explanation: john has 4 votes casted for
him, but so does johny. john is
lexicographically smaller, so we print
john and the votes he received.
```

## HASHING DATA STRUCTURE

- Now, we traverse the
- We need a unordered\_map Name -> votes
- Create an Unordered\_map

```
Input:
n = 13
Votes[] = {john,johnny,jackie,johnny,john
jackie,jamie,jamie,john,johnny,jamie,
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Output: john 4
Explanation: john has 4 votes casted for
him, but so does johny. john is
lexicographically smaller, so we print
john and the votes he received.
```

john -> 4
johnny -> 4
jamie -> 3
Jackie -> 2

## HASHING DATA STRUCTURE

Now, we traverse the unordered\_map

Initialise two variable name and max\_vote

- 1) Now take the key and its value
  - 2) compare if (value > max\_vote)
    - 3) store the max\_vote = value; Name = key
  - 4) compare if (value == max\_vote)

    check key < name

    Name = key