

# 1980. Find Unique Binary String

Given an array of strings `nums` containing `n` **unique** binary strings each of length `n`, return a *binary string of length `n` that **does not appear** in `nums`*. If there are multiple answers, you may return **any** of them.

## Example 1:

Input: `nums = ["01","10"]`

Output: `"11"`

Explanation: `"11"` does not appear in `nums`. `"00"` would also be correct.

## Example 2:

Input: `nums = ["00","01"]`

Output: `"11"`

Explanation: `"11"` does not appear in `nums`. `"10"` would also be correct.

## Example 3:

Input: `nums = ["111","011","001"]`

Output: `"101"`

Explanation: `"101"` does not appear in `nums`. `"000"`, `"010"`, `"100"`, and `"110"` would also be correct.

```
class Solution:
    def findDifferentBinaryString(self, nums: List[str]) -> str:
        res = []
        n = len(nums[0])
        nums = set(nums)
        self.findDifferentBinaryStringUtil(nums, res, n, '')
        return res[0]
    def findDifferentBinaryStringUtil(self, nums, res, n, ssf):
        if len(ssf) == n:
            if ssf not in nums:
                res.append(ssf)
                return

        if len(res) == 0:
            self.findDifferentBinaryStringUtil(nums, res, n, '0'+ssf)
            self.findDifferentBinaryStringUtil(nums, res, n, '1'+ssf)
```

```
else:  
    return
```