198. House Robber

Solved

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You are a professional robber planning to rob houses along a street. Each house has a certain amount of money stashed, the only constraint stopping you from robbing each of them is that adjacent houses have security systems connected and **it will automatically contact the police if two adjacent houses were broken into on the same night**.

Given an integer array `nums` representing the amount of money of each house, return *the maximum amount of money you can rob tonight* ***without alerting the police***.

Example 1:

```
Input: nums = [1,2,3,1]
Output: 4
Explanation: Rob house 1 (money = 1) and then rob house 3 (money = 3).
Total amount you can rob = 1 + 3 = 4.
```

```
class Solution {
    func rob(_ nums: [Int]) -> Int {
        if(nums.count == 1) {
            return nums[0]
        }

        if(nums.count == 2) {
            return max(nums[0],nums[1])
        }

        var dp = Array(repeating:0,count:nums.count)
        dp[0] = nums[0]
        dp[1] = max(nums[1],nums[0])
```

```
        for i in 2..<nums.count {
            dp[i] = max((nums[i]+dp[i-2]),dp[i-1])
        }

        return dp[nums.count-1]
    }
}
```