Maximum product subarray

example

3, 2, -1, 4, -6, 3, -2, 6

3, 2, -1, 4, -6, 3, -2, 6

-2, 4, 5, 6, -7

we get max at prefix and prefix, we gaurantee that we have the max product

-2, 3, 4, -5, 0, 1, 11, 5, 7, 0, 2, 6, 7, -2, -3

max max max

whenever there is 0 make it 1, so we get product of next subarray

```
class Solution {
public:
    int maxProduct(vector<int> &nums) {
        int maxProduct = INT_MIN;
        // loop over prefix
        int sumPrefix = 1;
        int sumSuffix = 1;
        for (int i = 0; i < nums.size(); i++) {
            sumPrefix = sumPrefix * nums[i];
            sumSuffix = sumSuffix*nums[nums.size() - i - 1];
            maxProduct = max({maxProduct, sumPrefix, sumSuffix});
            if (sumPrefix == 0) {
                sumPrefix = 1;
            }
            if (sumSuffix == 0) {
                sumSuffix = 1;
            }
        }
        return maxProduct;
    }
};
```