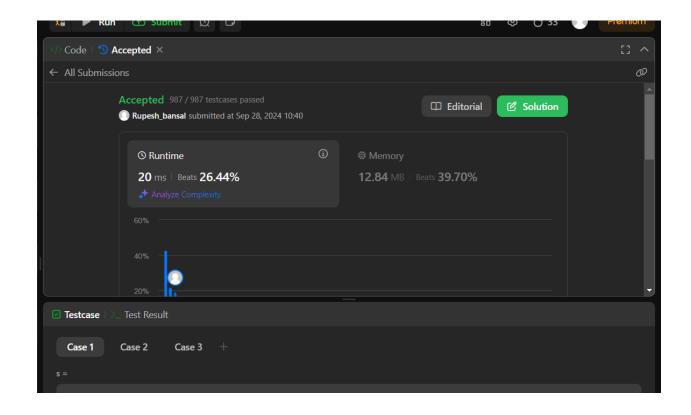
```
1763. Longest Nice Substring
class Solution {
public:
           string longestNiceSubstring(string s) {
                     if (s.size() < 2) return "";
                      unordered_set<char> st(begin(s), end(s));
                     for (int i = 0; i < s.size(); i++) {
                                  if (st.find((char) \ toupper(s[i])) == end(st) \ || \ st.find((char) \ tolower(s[i])) == end(st)) \ \{ \ end(st) \ || \ end(s
                                           string s1 = longestNiceSubstring(s.substr(0, i));
                                            string s2 = longestNiceSubstring(s.substr(i + 1));
                                           return s1.size() >= s2.size() ? s1 : s2;
                                }
                     }
                      return s;
          }
};
```



```
190.Reverse Bits
class Solution {
public:
    uint32_t reverseBits(uint32_t n) {
        string bits = bitset<32>(n).to_string();
        reverse(bits.begin(), bits.end());
        int ans = stoll(bits, NULL, 2);
        return ans;
    }
};
```

```
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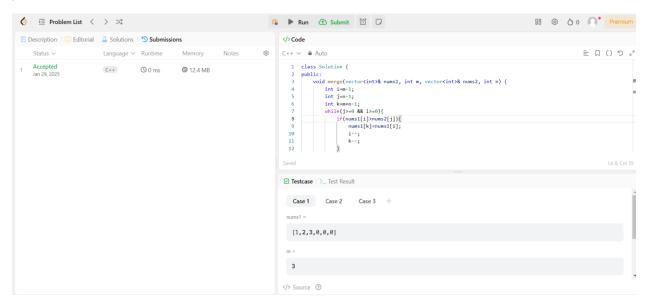
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```

88. Merge Sorted Array

```
class Solution {
public:
    void merge(vector<int>& nums1, int m, vector<int>& nums2, int n) {
    int i=m-1;
    int j=n-1;
    int k=m+n-1;
    while(j>=0 && i>=0){
        if(nums1[i]>nums2[j]){
            nums1[k]=nums1[i];
            i--;
    }
}
```

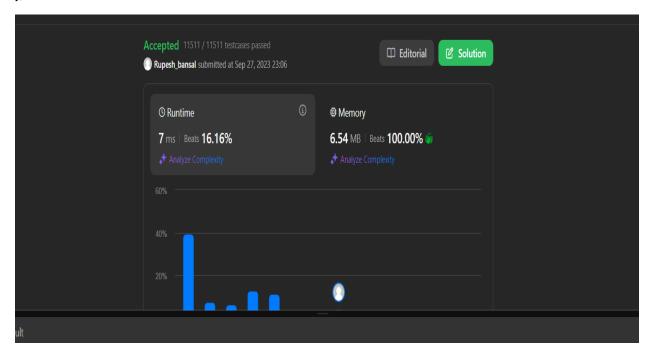
```
k--;
}
else{
    nums1[k]=nums2[j];
    k--;
    j--;
}
while(j>=0){
    nums1[k]=nums2[j];
    j--;
    k--;
}
};
```



372.Super Pow

```
class Solution {
  const int base = 1337;
  int powmod(int a, int k)
```

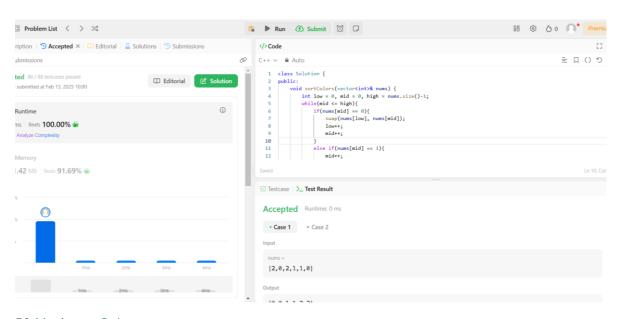
```
{
    a %= base;
    int result = 1;
    for (int i = 0; i < k; ++i)
        result = (result * a) % base;
    return result;
}
public:
    int superPow(int a, vector<int>& b) {
        if (b.empty()) return 1;
        int last_digit = b.back();
        b.pop_back();
        return powmod(superPow(a, b), 10) * powmod(a, last_digit) % base;
    }
};
```



75. Sort Colors

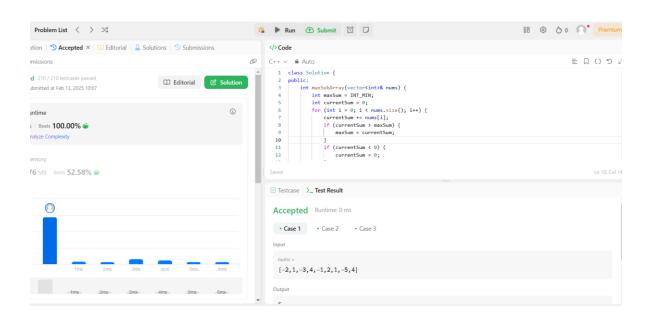
class Solution {

```
public:
 void sortColors(vector<int>& nums) {
   int low = 0, mid = 0, high = nums.size()-1;
   while(mid <= high){
     if(nums[mid] == 0){
       swap(nums[low], nums[mid]);
       low++;
       mid++;
     }
     else if(nums[mid] == 1){
       mid++;
     }
     else{
       swap(nums[mid], nums[high]);
       high--;
     }}}
};
```



53. Maximum Subarray

```
class Solution {
public:
  int maxSubArray(vector<int>& nums) {
   int maxSum = INT_MIN;
   int currentSum = 0;
   for (int i = 0; i < nums.size(); i++) {
     currentSum += nums[i];
     if (currentSum > maxSum) {
       maxSum = currentSum;
     }
     if (currentSum < 0) {
       currentSum = 0;
     }
   }
   return maxSum;
 }
};
```

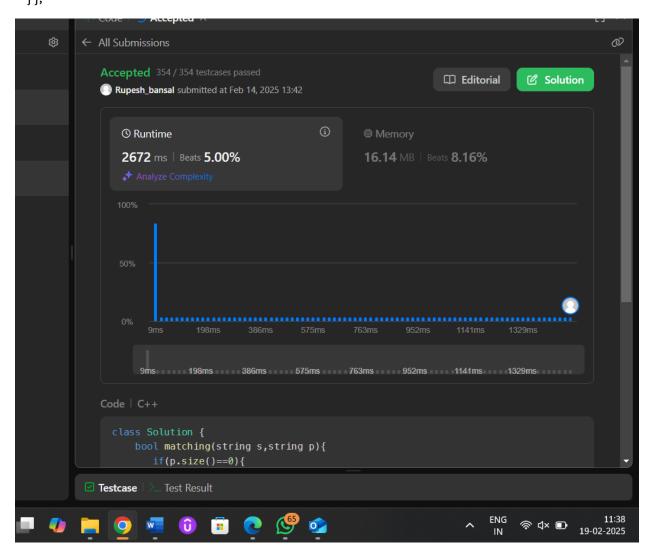


```
278. First Bad Version
class Solution {
public:
  int firstBadVersion(int n) {
    int first = 1;
    int last = n;
    while (first < last) {
      int mid = first + (last - first) / 2;
      if (isBadVersion(mid)) {
        last = mid;
      } else {
        first = mid + 1;
      }
    }
    return first;
 }
};
347.<u>Top K Frequent Elements</u>
class Solution {
public:
  vector<int> topKFrequent(vector<int>& nums, int k) {
    unordered_map<int, int> ump;
   for(int i: nums){
      ump[i]++;
    }
    priority_queue<pair<int, int>>pq;
```

```
for(auto i: ump){
    pq.push({i.second,i.first});
}

vector<int> res;
while(k--){
    auto [elem, count] = pq.top();
    res.push_back(count);
    pq.pop(); }

return res;
}};
```



```
class Solution {
public:
int partition(vector<int> &v, int start, int end, int mask)
 {
    int j = start;
    for(int i = start; i <= end; i++)
    {
      if((v[i] \& mask) != 0)
      {
        swap(v[i], v[j]);
        j++;
      }
    }
    return j;
 }
  void sort(vector<int> & v, int start, int end, int mask)
 {
    if(start >= end) return;
    int mid = partition(v, start, end, mask);
    sort(v, start, mid - 1, mask << 1);
    sort(v, mid, end, mask << 1);
 }
  vector<int> beautifulArray(int n) {
    vector<int> ans;
    for(int i = 0; i < n; i++) ans.push_back(i + 1);
    sort(ans, 0, n - 1, 1);
    return ans;
```

```
}
};
```

```
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                                                                                                                                                                         2 () □ ≡
                                                                              1 class Solution {
2 public:
3 int partition(vector<int> &v, int start, int end, int mask)
oted 38 / 38 testcases passed
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                                                                                        int j = start;
for(int i = start; i <= end; i++)</pre>
Runtime
ms | Beats 100.00% 🞳
                                                                                            if((v[i] & mask) != 0)
                                                                                               swap(v[i], v[j]);
j++;
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   0
                                                                            Accepted Runtime: 0 ms
                                                                             • Case 1 • Case 2
```

162. Find Peak Element

}

```
class Solution {
public:
    int findPeakElement(vector<int>& nums) {
        int n = nums.size();
        int r = n-1;
        int l = 0;
        while(r>l){
            int mid = (r+l)/2;
            if(nums[mid] > nums[mid+1]) r = mid;
            else l = mid +1;
        }
        return l;
```

