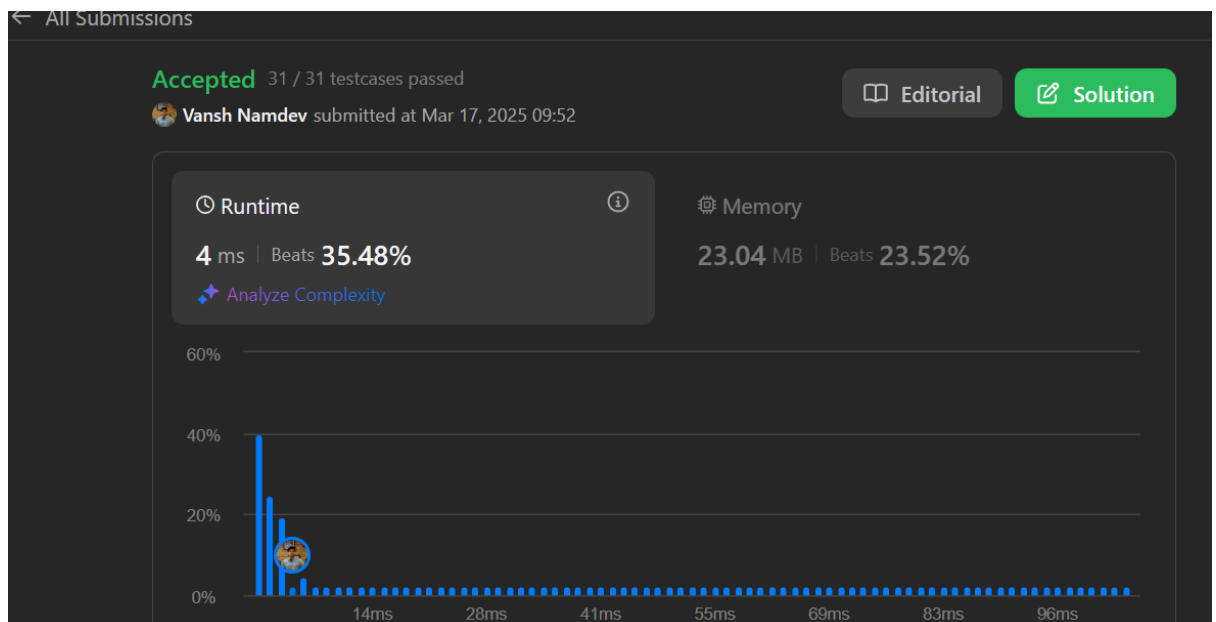


108. Convert Sorted Array to Binary Search Tree

- **Solution Code:**

```
class Solution {
public:
    TreeNode* sortedArrayToBST(vector<int>& nums) {
        return buildBST(nums,0,nums.size()-1);
    }
    TreeNode* buildBST(vector<int>& nums,int left,int right){
        if(left>right){
            return nullptr;
        }
        int mid=left+(right-left)/2;
        TreeNode* node=new TreeNode(nums[mid]);
        node->left=buildBST(nums,left,mid-1);
        node->right=buildBST(nums,mid+1,right);
        return node;
    }
};
```

- **Screenshot:**



191. Number of 1 Bits

- **Source Code:**

```
class Solution {
public:
    int hammingWeight(uint32_t n) {
        int res = 0;
        for (int i = 0; i < 32; i++) {
            if ((n >> i) & 1) {
                res += 1;
            }
        }
        return res;
    }
};
```

- **Screenshot:**

The screenshot displays a code submission page for the problem 'Number of 1 Bits'. The interface is divided into several sections:

- Submission Status:** Shows 'Accepted' with 598 / 598 testcases passed. The user 'Vansh Namdev' submitted the solution on Mar 18, 2025 at 19:55.
- Performance Metrics:**
 - Runtime:** 0 ms, Beats 100.00%.
 - Memory:** 8.28 MB, Beats 47.49%.
- Code Editor:** Displays the C++ code for the solution, which is a class 'Solution' with a public method 'hammingWeight' that iterates through the 32 bits of the input 'n' and counts the number of 1s.
- Testcase Results:** Shows a table with columns for 'Case 1', 'Case 2', and 'Case 3'. The input 'n = 11' is shown, and the output for Case 1 is 3.

912. Sort an Array

- **Source Code:**

```
class Solution {
public:

    void merge(std::vector<int>& array, int left, int mid, int
right) {
        int n1 = mid - left + 1;
        int n2 = right - mid;

        vector<int> L(n1);
        vector<int> R(n2);

        for (int i = 0; i < n1; ++i)
            L[i] = array[left + i];
        for (int j = 0; j < n2; ++j)
            R[j] = array[mid + 1 + j];

        int i = 0;
        int j = 0;
        int k = left;
        while (i < n1 && j < n2) {
            if (L[i] <= R[j]) {
                array[k] = L[i];
                ++i;
            } else {
                array[k] = R[j];
                ++j;
            }
            ++k;
        }

        while (i < n1) {
            array[k] = L[i];
            ++i;
            ++k;
        }

        while (j < n2) {
            array[k] = R[j];
            ++j;
            ++k;
        }
    }
}
```

```

void mergeSort(std::vector<int>& array, int left, int
right) {
    if (left >= right)
        return;

    int mid = left + (right - left) / 2;

    mergeSort(array, left, mid);
    mergeSort(array, mid + 1, right);

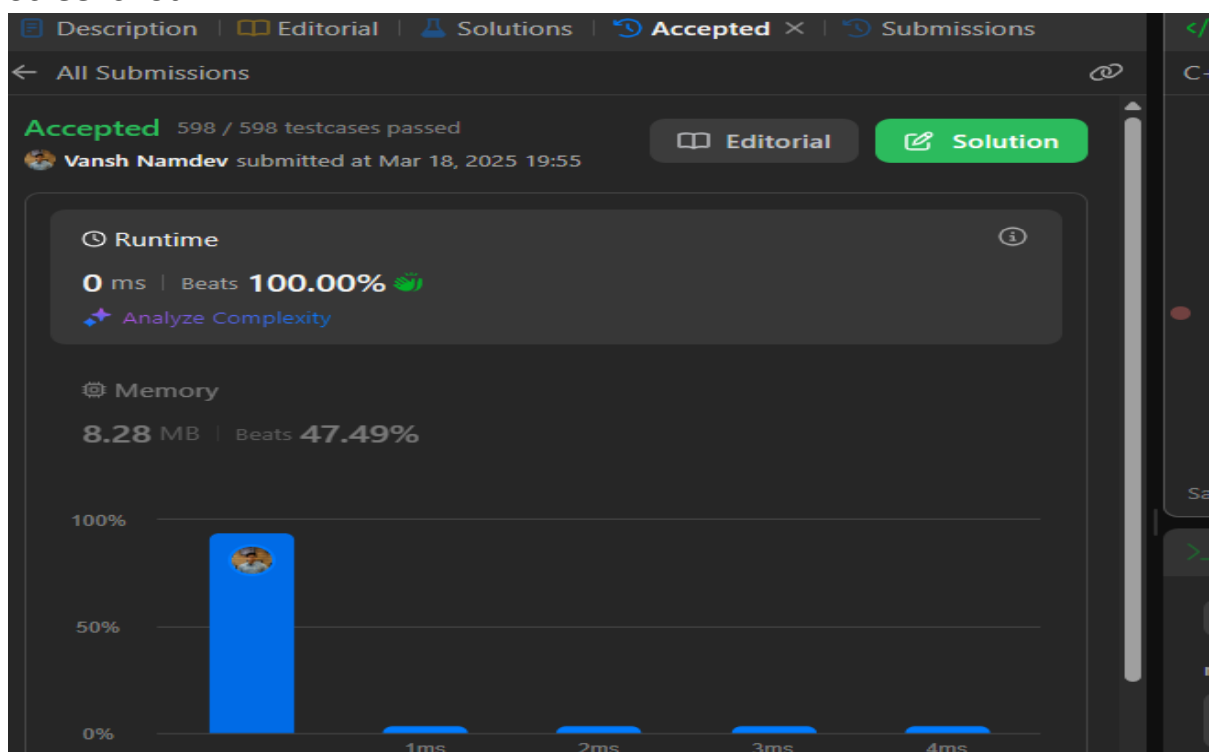
    merge(array, left, mid, right);
}

vector<int> sortArray(vector<int>& nums) {
    mergeSort(nums, 0, nums.size() - 1);

    return nums;
}
};

```

- **Screenshot:**



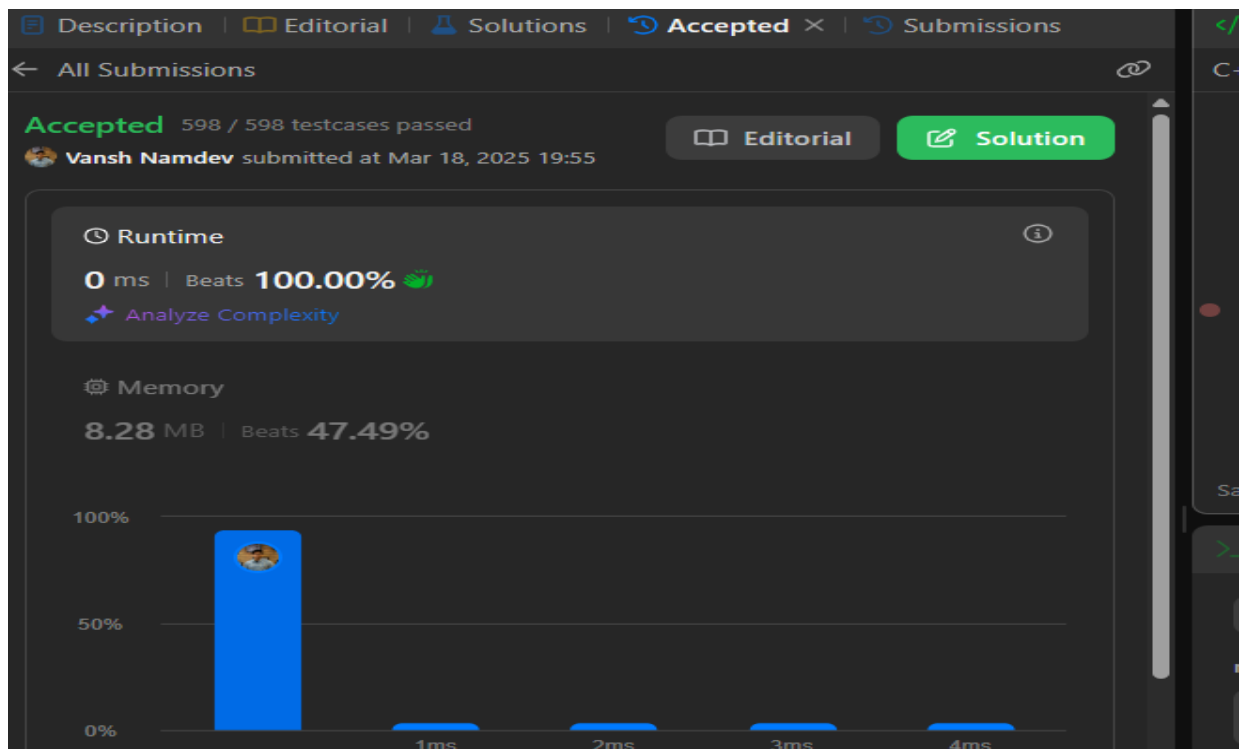
53. Maximum Subarray

- **Source Code:**

```
class Solution {
public:
    int maxSubArray(vector<int>& nums) {
        int res = nums[0];
        int maxEnding = nums[0];

        for (int i = 1; i < nums.size(); i++) {
            maxEnding = max(maxEnding + nums[i], nums[i]);
            res = max(res, maxEnding);
        }
        return res;
    }
};
```

- **Screenshot:**



932. Beautiful Array

- **Source Code:**

```
class Solution {
public:
    vector<int> beautifulArray(int N) {
        vector<int> res = {1};
        while (res.size() < N) {
            vector<int> tmp;
            for (int i : res) if (i * 2 - 1 <= N) tmp.push_back(i
* 2 - 1);
            for (int i : res) if (i * 2 <= N) tmp.push_back(i *
2);
            res = tmp;
        }
        return res;
    }
}
```

- **};Screenshot:**

-

The screenshot displays a code editor interface for a problem titled "932. Beautiful Array". The top status bar indicates "Accepted 38 / 38 testcases passed" and shows the user "Vansh Namdev" submitted at "Mar 18, 2025 19:52". There are buttons for "Editorial" and "Solution". The main area shows the C++ code for the solution, which is the same as the source code provided in the previous block. The code is highlighted with a dark theme. On the right side, there is a "Runtime" section showing "0 ms" and "Beats 100.00%", and a "Memory" section showing "10.24 MB" and "Beats 32.19%". A "75%" progress bar is visible at the bottom left. The code editor shows lines 1 through 13 of the solution.

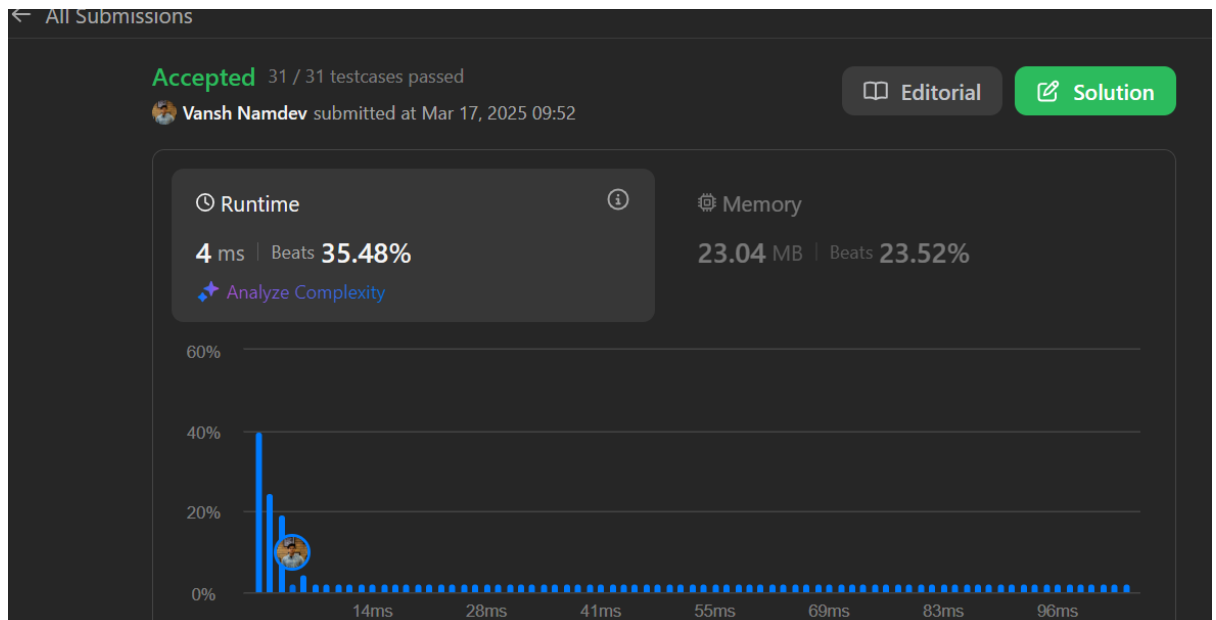
```
1 class Solution {
2 public:
3     vector<int> beautifulArray(int N) {
4         vector<int> res = {1};
5         while (res.size() < N) {
6             vector<int> tmp;
7             for (int i : res) if (i * 2 - 1 <= N) tmp.push_back(i
8 * 2 - 1);
9             for (int i : res) if (i * 2 <= N) tmp.push_back(i *
10 2);
11             res = tmp;
12         }
13         return res;
14     }
15 }
```

372. [Super Pow](#)

- Source Code:

```
class Solution {
    const int base = 1337;
    int powmod(int a, int k) //a^k mod 1337 where 0 <= k <= 10
    {
        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;
    }
};
```

- Screenshot:



218. The Skyline Problem

- **Source Code:**

```
class Solution {
public:
    vector<vector<int>> getSkyline(vector<vector<int>>& buildings) {
        int edge_idx = 0;
        vector<pair<int, int>> edges;
        priority_queue<pair<int, int>> pq;
        vector<vector<int>> skyline;

        for (int i = 0; i < buildings.size(); ++i) {
            const auto &b = buildings[i];
            edges.emplace_back(b[0], i);
            edges.emplace_back(b[1], i);
        }

        std::sort(edges.begin(), edges.end());

        while (edge_idx < edges.size()) {
            int curr_height;
            const auto &[curr_x, _] = edges[edge_idx];
            while (edge_idx < edges.size() &&
                   curr_x == edges[edge_idx].first) {
                const auto &[, building_idx] = edges[edge_idx];
                const auto &b = buildings[building_idx];
                if (b[0] == curr_x)
                    pq.emplace(b[2], b[1]);
                ++edge_idx;
            }
            while (!pq.empty() && pq.top().second <= curr_x)
                pq.pop();
            curr_height = pq.empty() ? 0 : pq.top().first;
            if (skyline.empty() || skyline.back()[1] != curr_height)
                skyline.push_back({curr_x, curr_height});
        }
        return skyline;
    }
};
```


- **Screenshot:**

