

ASSIGNMENT-4

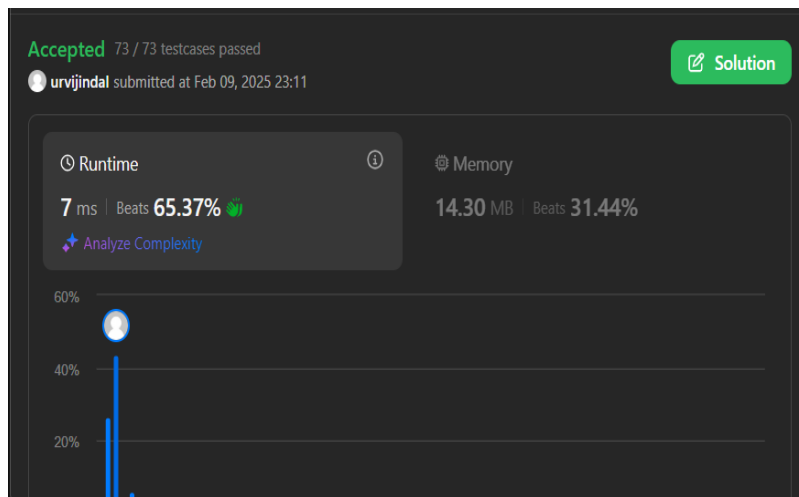
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UID: 22BCS14860

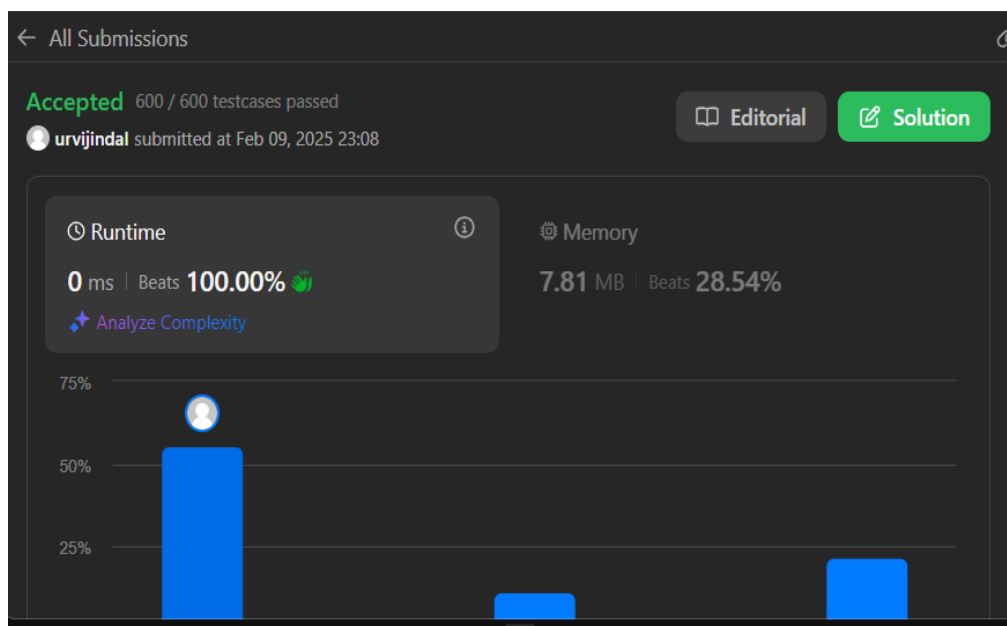
1763. Longest Nice Substring

```
class Solution {
public:
    string longestNiceSubstring(string s) {
        if (s.length() < 2) return "";
        unordered_set<char> charSet(s.begin(), s.end());
        for (int i = 0; i < s.length(); i++) {
            if (charSet.count(tolower(s[i])) && charSet.count(toupper(s[i])))
                continue;
            string left = longestNiceSubstring(s.substr(0, i));
            string right = longestNiceSubstring(s.substr(i + 1));
            return left.length() >= right.length() ? left : right;
        }
        return s;
    }
};
```



190. Reverse Bits

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



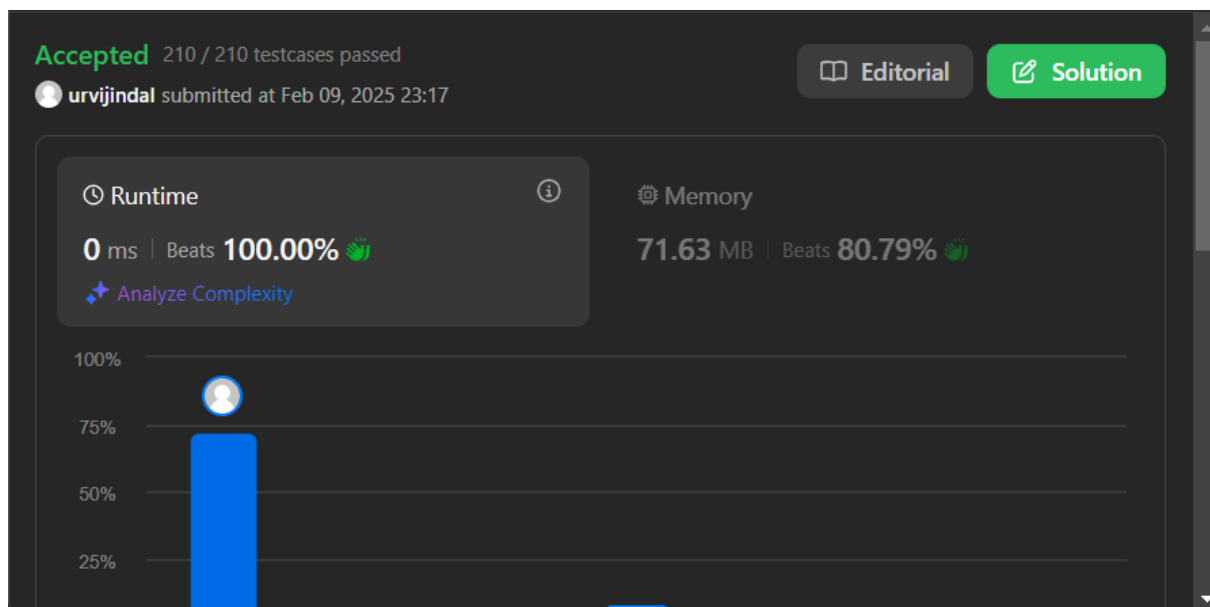
53. Maximum Subarray

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

```

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

```



191. Number of 1 Bits

```

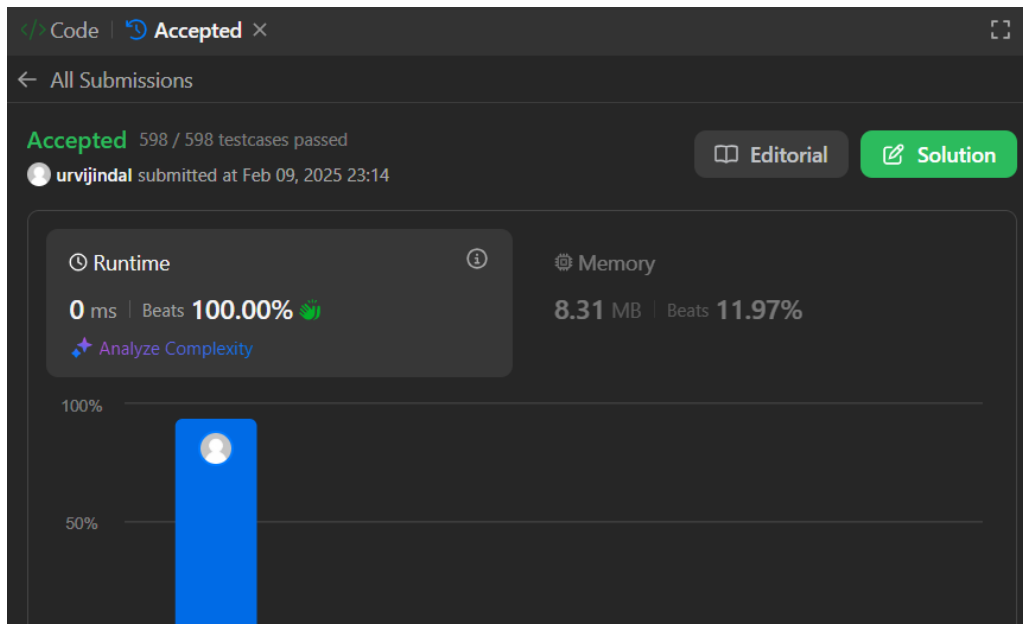
class Solution {
public:
    int hammingWeight(int n) {
        int count = 0;
        while (n) {
            count += (n & 1);
            n >>= 1;
        }
        return count;
    }
};

```

```

    }
};

```



372. Super Pow

```

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;
    }
};

```

```
}  
};
```

