ADVANCED PROGRAMMING - II

Assignment - 4

Submitted by,

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Section: 22BCS_FL_IOT-601 (A)

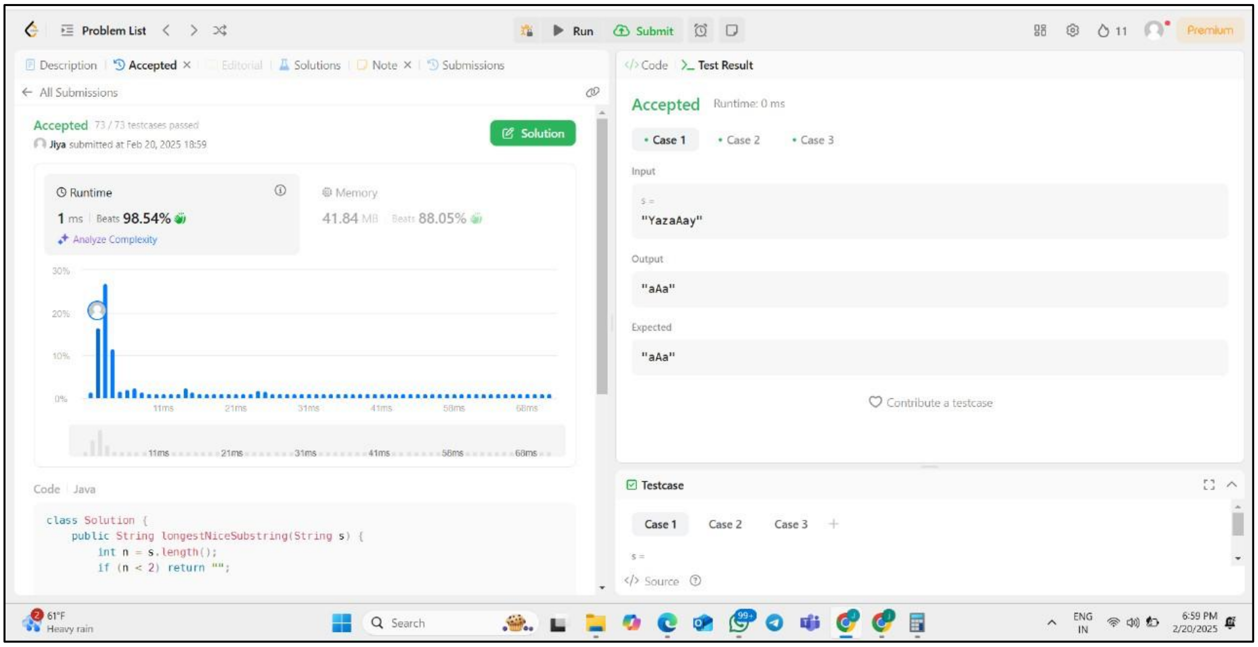
1763.Longest Nice Substring

https://leetcode.com/problems/longest-nice-substring/description/

```
class Solution {
    public String longestNiceSubstring(String s) {
        int n = s.length();
        if (n < 2) return "";

        for (int i = 0; i < n; i++) {
            char c = s.charAt(i);
            if 
(s.contains(Character.toString(Character.toUpperCase(c))) &&

s.contains(Character.toString(Character.toLowerCase(c)))) continue;
            String l = longestNiceSubstring(s.substring(0, i));
            String r = longestNiceSubstring(s.substring(i + 1));
            return l.length() >= r.length() ? l : r;
        }
        return s;
    }
}
```



Accepted 73 / 73 testcases passed

Jiya submitted at Feb 20, 2025 18:59

Runtime
1 ms | Beats 98.54%

Memory
41.84 MB Beats 88.05%

Code | Java

```
class Solution {
    public String longestNiceSubstring(String s) {
        int n = s.length();
        if (n < 2) return "";
```

Accepted Runtime: 0 ms

Input

s =
"YazaAay"

Output

"aAa"

Expected

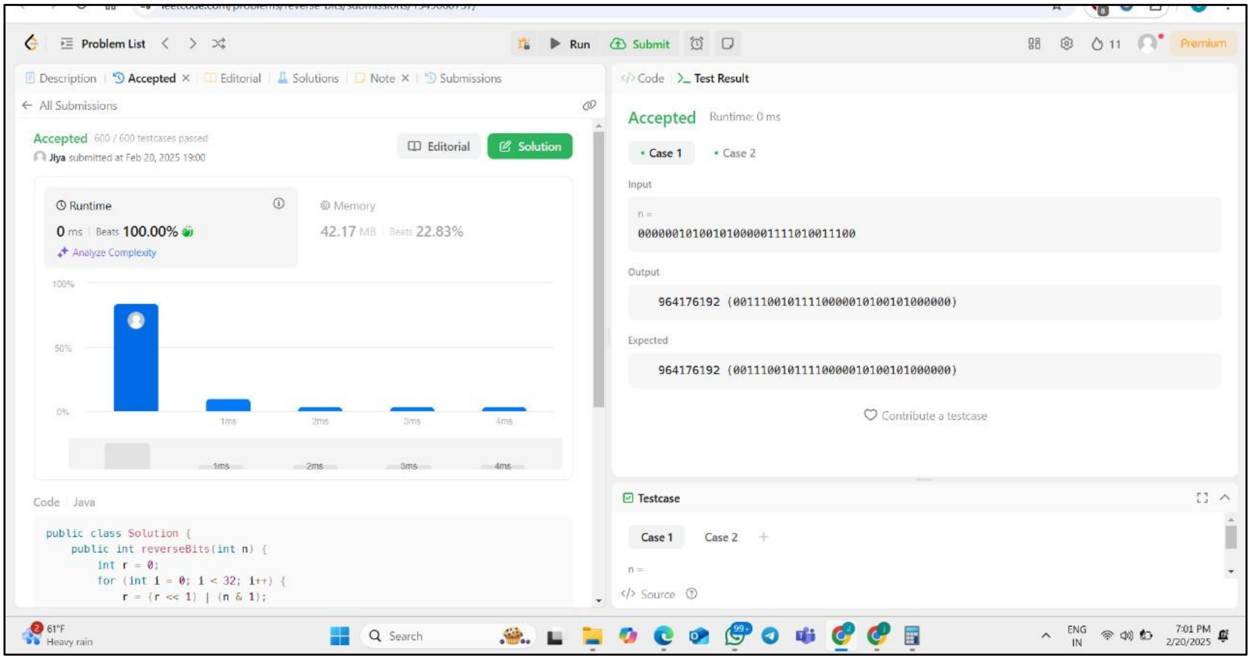
"aAa"

s =

190.Reverse Bits

https://leetcode.com/problems/reverse-bits/description/

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



Accepted 600 / 600 testcases passed

Jiya submitted at Feb 20, 2025 19:00

Runtime

0 ms | Beats 100.00%

Memory

42.17 MB | Beats 22.83%

Code | Java

```
public class Solution {
    public int reverseBits(int n) {
        int r = 0;
        for (int i = 0; i < 32; i++) {
            r = (r << 1) | (n & 1);
```

Accepted Runtime: 0 ms

• Case 1 • Case 2

Input

```
n =
00000010100101000001111010011100
```

Output

```
964176192 (00111001011110000010100101000000)
```

Expected

```
964176192 (00111001011110000010100101000000)
```

n =

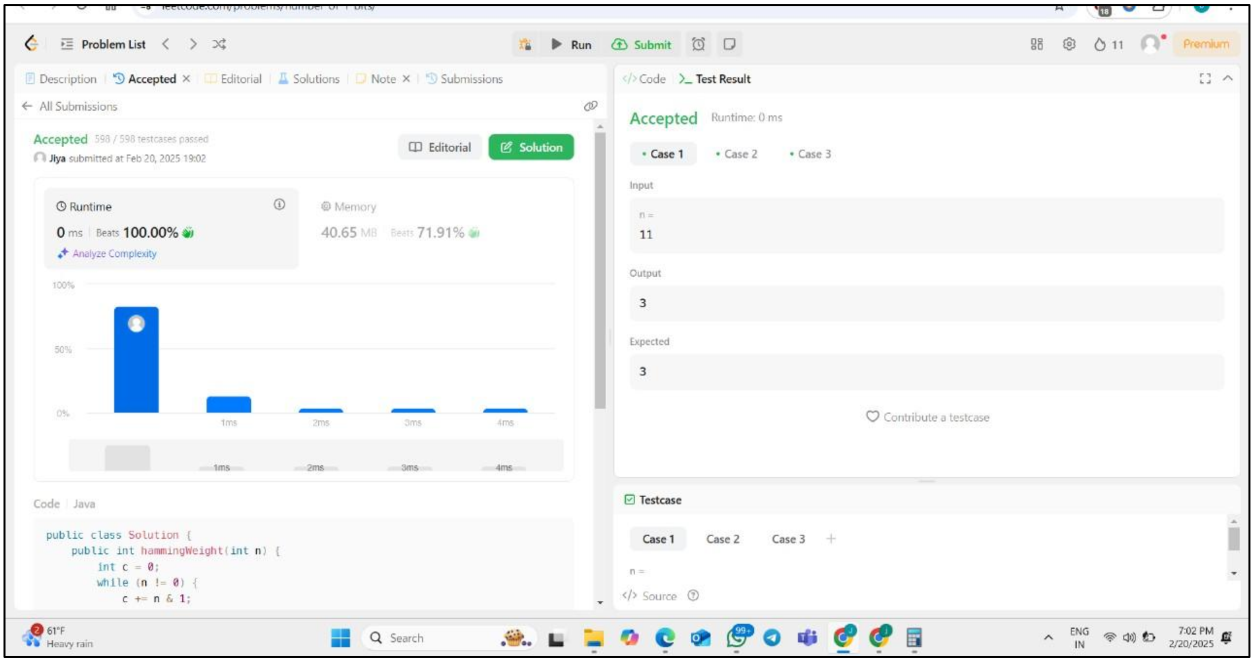
61°F
Heavy rain

7:01 PM
2/20/2025

191.Number 1 Bits

https://leetcode.com/problems/number-of-1-bits/description/

```
public class Solution {
    public int hammingWeight(int n) {
        int c = 0;
        while (n != 0) {
            c += n & 1;
            n >>= 1;
        }
        return c;
    }
}
```



Accepted 598 / 598 testcases passed

Jiya submitted at Feb 20, 2025 19:02

Runtime

0 ms | Beats 100.00%

Memory

40.65 MB | Beats 71.91%

Code | Java

```
public class Solution {
    public int hammingWeight(int n) {
        int c = 0;
        while (n != 0) {
            c += n & 1;
```

Accepted Runtime: 0 ms

Input

n =
11

Output

3

Expected

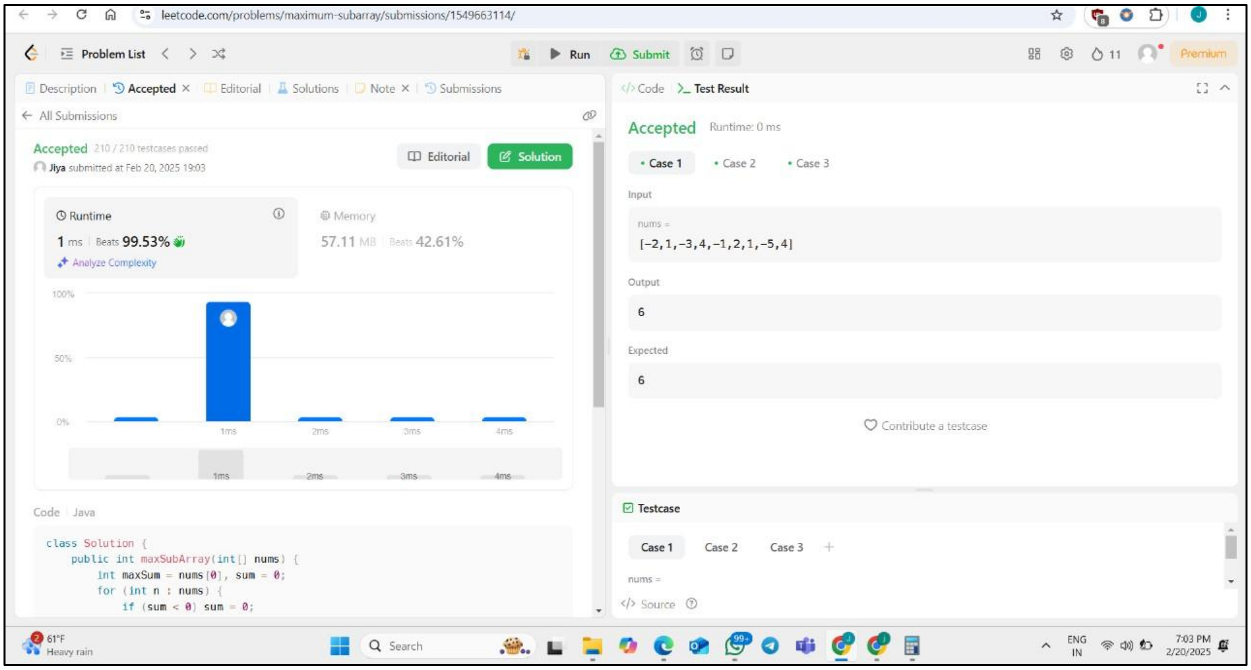
3

n =

53.Maximum Subarray

https://leetcode.com/problems/maximum-subarray/description/

```
class Solution {
    public int maxSubArray(int[] nums) {
        int maxSum = nums[0], sum = 0;
        for (int n : nums) {
            if (sum < 0) sum = 0;
            sum += n;
            maxSum = Math.max(maxSum, sum);
        }
        return maxSum;
    }
}
```



Accepted 210 / 210 testcases passed

Jiya submitted at Feb 20, 2025 19:03

Runtime 1 ms | Beats 99.53%

Memory 57.11 MB | Beats 42.61%

Code | Java

```
class Solution {
    public int maxSubArray(int[] nums) {
        int maxSum = nums[0], sum = 0;
        for (int n : nums) {
            if (sum < 0) sum = 0;
```

Accepted Runtime: 0 ms

• Case 1 • Case 2 • Case 3

Input

nums =
[-2,1,-3,4,-1,2,1,-5,4]

Output

6

Expected

6

Testcase

Case 1 Case 2 Case 3 +

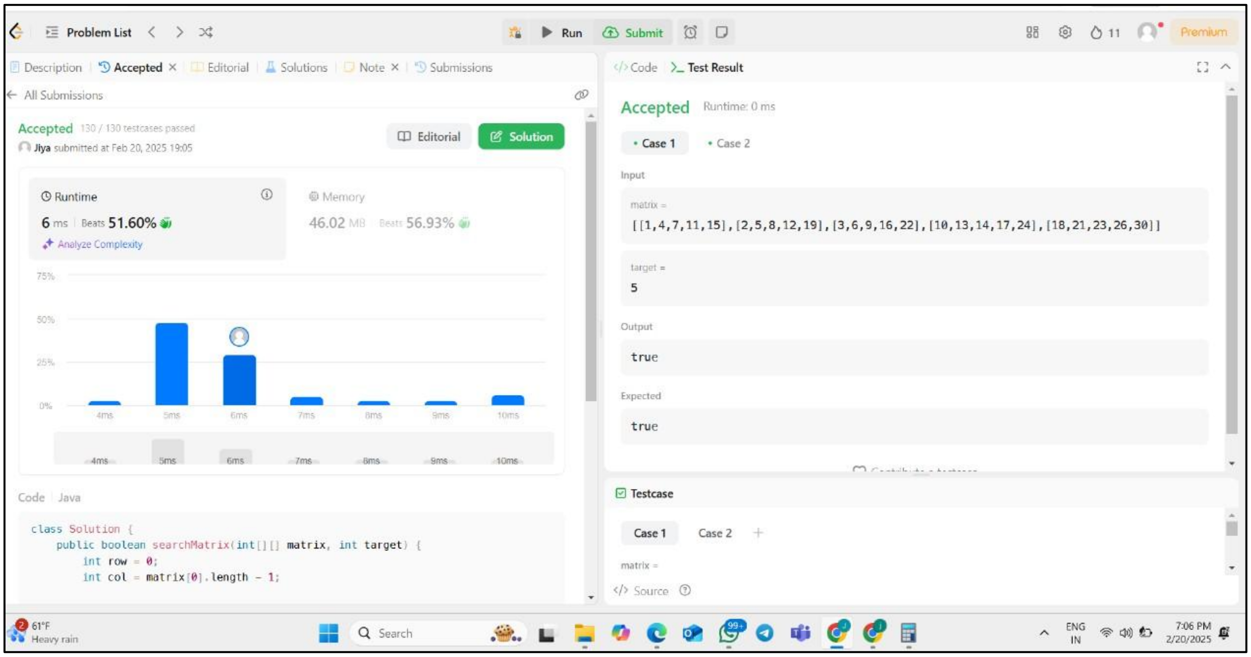
nums =

240.Search a 2D Matrix II

https://leetcode.com/problems/search-a-2d-matrix-ii/description/

```
class Solution {
    public boolean searchMatrix(int[][] matrix, int target) {
        int row = 0;
        int col = matrix[0].length - 1;

        while (row < matrix.length && col >= 0) {
            if (matrix[row][col] == target) {
                return true;
            } else if (matrix[row][col] > target) {
                col--;
            } else {
                row++;
            }
        }
        return false;
    }
}
```



Accepted 130 / 130 testcases passed

Jiya submitted at Feb 20, 2025 19:05

Runtime
6 ms | Beats 51.60%

Memory
46.02 MB | Beats 56.93%

Code | Java

```
class Solution {
    public boolean searchMatrix(int[][] matrix, int target) {
        int row = 0;
        int col = matrix[0].length - 1;
```

Accepted Runtime: 0 ms

Input

matrix =
```
[[1,4,7,11,15],[2,5,8,12,19],[3,6,9,16,22],[10,13,14,17,24],[18,21,23,26,30]]
```

target =
```
5
```

Output
```
true
```

Expected
```
true
```

matrix =

372.Super Pow

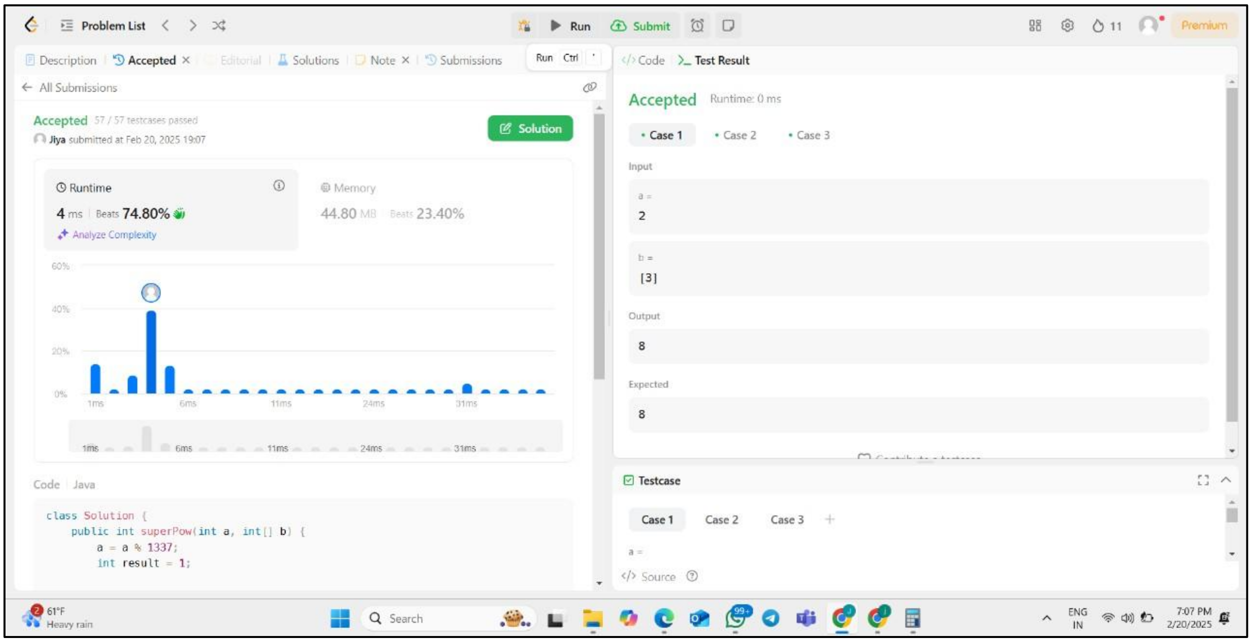
https://leetcode.com/problems/super-pow/description/

```
class Solution {
    public int superPow(int a, int[] b) {
        a = a % 1337;
        int result = 1;

        for (int i = b.length - 1; i >= 0; i--) {
            result = (result * pow(a, b[i])) % 1337;
            a = pow(a, 10) % 1337;
        }

        return result;
    }

    private int pow(int a, int b) {
        int result = 1;
        while (b > 0) {
            if (b % 2 == 1) {
                result = (result * a) % 1337;
            }
            a = (a * a) % 1337;
            b /= 2;
        }
        return result;
    }
}
```



Accepted 57 / 57 testcases passed

Jiya submitted at Feb 20, 2025 19:07

Runtime

4 ms | Beats 74.80%

Memory

44.80 MB | Beats 23.40%

Code | Java

```
class Solution {
    public int superPow(int a, int[] b) {
        a = a % 1337;
        int result = 1;
```

Accepted Runtime: 0 ms

• Case 1 • Case 2 • Case 3

Input

a =
2

b =
[3]

Output

8

Expected

8

Testcase

Case 1 Case 2 Case 3 +

a =

Source