2D Arrays-part-2

Assignment Solutions

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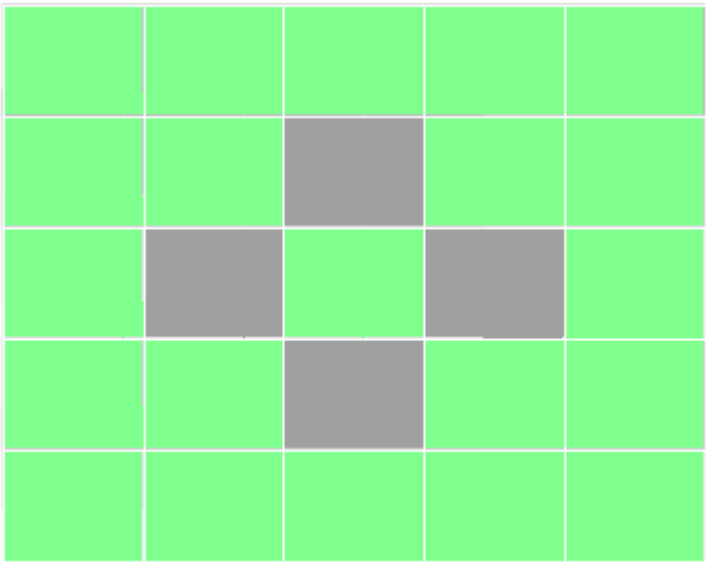
Assignment Solutions

Problem-1:
Given a 1D array of size 10 , convert it into a 2D array of size 2x5

Solution-1:

```
let A=[1,2,3,4,5,6,7,8,9,10]
let M = []
let n =  A.length
let num_row=5;
for(let idx=0;idx<n;idx=idx+num_row){
 M.push(A.slice(idx,idx+num_row))
}
console.log(M);
```

Problem-2:
Given a 2D array, find the sum of the diagonal and the boundary elements of it.
In the given matrix of size 5x5 the colored cell marks the diagonal and the boundary elements



Input:
A=[[1,2,3,4,1],
[5,6,7,8,2],
[9,10,11,12,13],
[13,14,15,16,15],
[11,12,15,19,15],
]
Output:
195

Explaination:
[1,2,3,4,1],

[5,6,7,8,2],
[9,10,11,12,13],
[13,14,15,16,15],
[11,12,15,19,15],
Sum of the diagonal and the boundary elements is : 195

Solution-2:

```
let N = 5;
    function compute(arr){
        let sum = 0;

        for (let idx = 0; idx < N; idx++) {

            for (let j = 0; j < N; j++) {

                if (idx == j || (idx + j) == N - 1) {
                    sum += arr[idx][j];
                }

                else if (idx == 0 || j == 0 || idx == N - 1|| j == N - 1)
{
                    sum += arr[idx][j];
                }
            }
        }

        console.log(sum)
    }

 let A=[
         [1,2,3,4,1],
     [5,6,7,8,2],
     [9,10,11,12,13],
     [13,14,15,16,15],
     [11,12,15,19,15],
      ]

  compute(A);
```