**Programming Tools in Artificial Intelligence**

**Course Code: (CT5132/CT5148)**

**Assignment 3**

Students Name:

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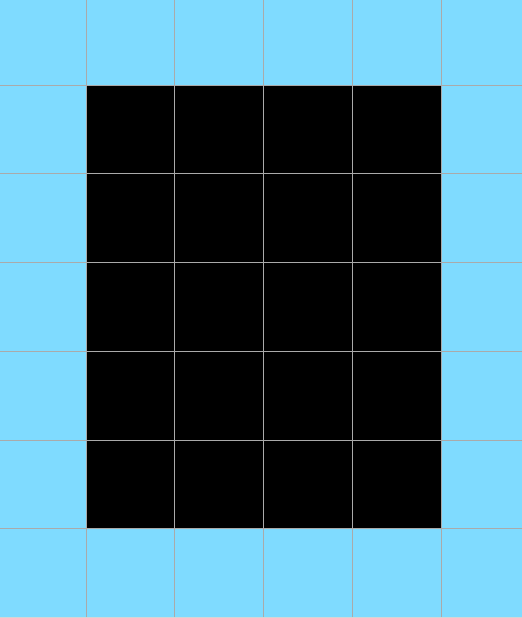
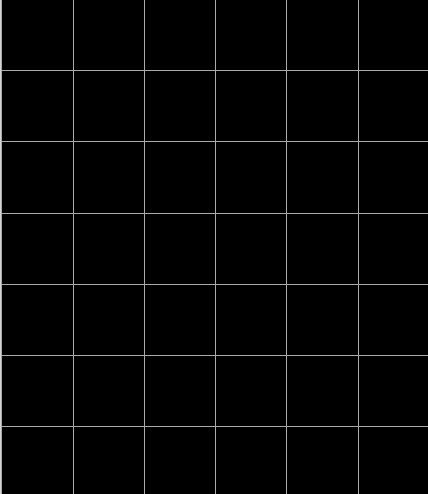
Tasks:

* 6f8cd79b.json
* 25d8a9c8.json
* 794b24be.json

Link to the GitHub :

Task 1: solution\_6f8cd79b.json

Input: Expected output:



Pattern Logic:

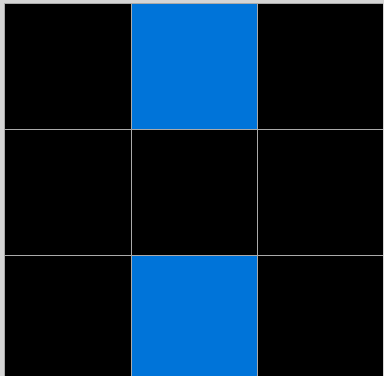
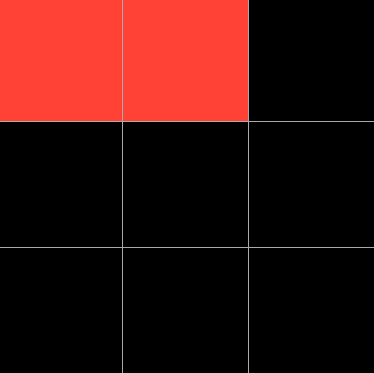
From the above representation of the images we can observe that, the input image is a blank grid and the expected output is the grid with blue color at its first and last row and column. We have to find a logic such that, any given input with blank grid, outputs a grid with a color at its boundaries.

Code Logic:

We have defined a function **solve,** which consists of the logic of this problem. In the solve function we first take the input of all the training cases and all the test cases. We then solve each case by displaying their specific outputs. Using for loop we first took the rows of the grid, then we colored the first and last row of the grid. Now for the first and last column of the grid, we use nested for loop, where we get the elements of each row separately. Then we assign the colors to the first and last element of each row.

Task 3: 794b24be.json

Input: Expected output:

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Pattern Logic:

From the above representation of the images we can observe that, the input consists of n number of scattered blue(8) colored elements in a grid. The output grid produces red(2) colored elements in a sequence of line. However, the if n < = 3, then output will be within the first row, else if n >3, then the 4th element will be in the second row and second column.