

Lab2 extra question (1)

EQ1: Rotate a 2D array 90 degrees clockwise and counterclockwise.

1. Write a Java program to:
 - Input a 2D array (square matrix, e.g., $n \times n$).
 - Display the original matrix.
 - Rotate the matrix 90 degrees clockwise and display the result.
 - Rotate the matrix 90 degrees counterclockwise and display the result.
2. Implement methods:
 - `rotateClockwise(int[][] matrix)`
 - `rotateCounterClockwise(int[][] matrix)`

Example input:

```
1 2 3
4 5 6
7 8 9
```

Output:

Original

```
1 2 3
4 5 6
7 8 9
```

90 Degrees Clockwise:

```
7 4 1
8 5 2
9 6 3
```

90 Degrees Counterclockwise:

```
3 6 9
2 5 8
1 4 7
```