

EE 1910

Dr. Johnson

Program 13

No capabilities beyond those
discussed in class or in the notes
are allowed

Write a program to rotate an $n \times n$ integer array counter-clockwise by 90 degrees. Print the original and rotated array values. Use the following function prototypes:

```
void readArray(int n, int the_ary[][n]);
void rotateArray(int n, int the_ary[][n]);
void printArray(int n, const int the_ary[][n]);
```

Your program must work for any value of n

Run the program for a 5×5 array as shown below

End up with something like this

HW_Cons_project.exe [C/C++ Application] Z:\msoe_curr

```
Programming HW 13
Welcome to Dr Johnson's 2d array program

Please enter the size for your n x n array, n = 5
Please enter the numbers for row 0: 1 2 3 4 5
Please enter the numbers for row 1: 6 7 8 9 10
Please enter the numbers for row 2: 11 12 13 14 15
Please enter the numbers for row 3: 16 17 18 19 20
Please enter the numbers for row 4: 21 22 23 24 25
```

```
Your entered array is:
1      2      3      4      5
6      7      8      9      10
11     12     13     14     15
16     17     18     19     20
21     22     23     24     25
```

```
Your rotated array is:
5      10     15     20     25
4      9      14     19     24
3      8      13     18     23
2      7      12     17     22
1      6      11     16     21
```

Your name