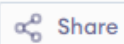


main.c



Run

Output

```
1 //DAY 39
2 //Q77
3 #include <stdio.h>
4 int main() {
5     int n, i, j, k, isDistinct = 1;
6
7     printf("Enter the size of the square matrix: ");
8     scanf("%d", &n);
9
10    int matrix[n][n];
11    printf("Enter elements of the matrix:\n");
12    for (i = 0; i < n; i++) {
13        for (j = 0; j < n; j++) {
14            printf("Element [%d][%d]: ", i, j);
15            scanf("%d", &matrix[i][j]);
16        }
17    }
18    int diagonal[n];
19    for (i = 0; i < n; i++) {
20        diagonal[i] = matrix[i][i];
21    }
22    for (i = 0; i < n; i++) {
23        for (j = i + 1; j < n; j++) {
24            if (diagonal[i] == diagonal[j]) {
25                isDistinct = 0;
26                break;
27            }
28        }
29        if (!isDistinct)
30            break;
31    }
32    printf("\nThe entered matrix is:\n");
33    for (i = 0; i < n; i++) {
34        for (j = 0; j < n; j++) {
35            printf("%d\t", matrix[i][j]);
36        }
37        printf("\n");
38    }
```

Enter the size of the square matrix: 2

Enter elements of the matrix:

Element [0][0]: 1

Element [0][1]: 2

Element [1][0]: 2

Element [1][1]:

3

The entered matrix is:

1 2

2 3

Diagonal elements: 1 3 All diagonal elements are distinct.

=== Code Execution Successful ===

main.c



Share

Run

Output

```
1 //DAY 39
2 //Q78
3 #include <stdio.h>
4 int main() {
5     int n, i, j, sum = 0;
6
7     printf("Enter the size of the square matrix: ");
8     scanf("%d", &n);
9
10    int matrix[n][n];
11
12    printf("Enter elements of the matrix:\n");
13    for (i = 0; i < n; i++) {
14        for (j = 0; j < n; j++) {
15            printf("Element [%d][%d]: ", i, j);
16            scanf("%d", &matrix[i][j]);
17        }
18    }
19    for (i = 0; i < n; i++) {
20        sum += matrix[i][i];
21    }
22    printf("\nThe entered matrix is:\n");
23    for (i = 0; i < n; i++) {
24        for (j = 0; j < n; j++) {
25            printf("%d\t", matrix[i][j]);
26        }
27        printf("\n");
28    }
29    printf("\nSum of main diagonal elements = %d\n", sum);
30    return 0;
31 }
```

```
Enter the size of the square matrix: 2
Enter elements of the matrix:
Element [0][0]: 1
Element [0][1]: 13
Element [1][0]:
3
Element [1][1]: 7

The entered matrix is:
1   13
3   7

Sum of main diagonal elements = 8

=== Code Execution Successful ===
```