



```
1 //DAY 37
2 //Q73
3 #include <stdio.h>
4 int main() {
5     int rows, cols, i, j;
6     printf("Enter number of rows: ");
7     scanf("%d", &rows);
8     printf("Enter number of columns: ");
9     scanf("%d", &cols);
10
11     int matrix[rows][cols];
12     int rowSum[rows];
13     printf("Enter elements of the matrix:\n");
14     for (i = 0; i < rows; i++) {
15         for (j = 0; j < cols; j++) {
16             printf("Enter element [%d][%d]: ", i, j);
17             scanf("%d", &matrix[i][j]);
18         }
19     }
20     for (i = 0; i < rows; i++){
21         rowSum[i] = 0;
22         for (j = 0; j < cols; j++) {
23             rowSum[i] += matrix[i][j];
24         }
25     }
26     printf("\nThe entered matrix is:\n");
27     for (i = 0; i < rows; i++) {
28         for (j = 0; j < cols; j++) {
29             printf("%d\t", matrix[i][j]);
30         }
31         printf("\n");
32     }
33     printf("\nSum of each row:\n");
34     for (i = 0; i < rows; i++) {
35         printf("Row %d sum = %d\n", i + 1, rowSum[i]);
36     }
37     return 0;
```

Enter number of rows: 3  
Enter number of columns: 2  
Enter elements of the matrix:  
Enter element [0][0]: 3  
Enter element [0][1]: 2  
Enter element [1][0]: 5  
Enter element [1][1]: 3  
Enter element [2][0]: 2  
Enter element [2][1]: 3

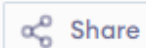
The entered matrix is:

```
3  2
5  3
2  3
```

Sum of each row:

```
Row 1 sum = 5
Row 2 sum = 8
Row 3 sum = 5
```

=== Code Execution Successful ===



```
1 //DAY 37
2 //Q74
3 #include <stdio.h>
4 int main() {
5     int rows, cols, i, j;
6     printf("Enter number of rows: ");
7     scanf("%d", &rows);
8     printf("Enter number of columns: ");
9     scanf("%d", &cols);
10
11     int matrix[rows][cols], transpose[cols][rows];
12
13     printf("Enter elements of the matrix:\n");
14     for (i = 0; i < rows; i++) {
15         for (j = 0; j < cols; j++) {
16             printf("Enter element [%d][%d]: ", i, j);
17             scanf("%d", &matrix[i][j]);
18         }
19     }
20     for (i = 0; i < rows; i++) {
21         for (j = 0; j < cols; j++) {
22             transpose[j][i] = matrix[i][j];
23         }
24     }
25     printf("\nThe original matrix is:\n");
26     for (i = 0; i < rows; i++) {
27         for (j = 0; j < cols; j++) {
28             printf("%d\t", matrix[i][j]);
29         }
30         printf("\n");
31     }
32     printf("\nThe transpose of the matrix is:\n");
33     for (i = 0; i < cols; i++) {
34         for (j = 0; j < rows; j++) {
35             printf("%d\t", transpose[i][j]);
36         }
37         printf("\n");
38     }
```

Enter number of rows: 2  
Enter number of columns: 3  
Enter elements of the matrix:  
Enter element [0][0]: 2  
Enter element [0][1]: 8  
Enter element [0][2]: 2  
Enter element [1][0]: 4  
Enter element [1][1]: 6  
Enter element [1][2]: 2

The original matrix is:

```
2  8  2
4  6  2
```

The transpose of the matrix is:

```
2  4
8  6
2  2
```

=== Code Execution Successful ===