

8. 2D MATRIX TRANSVERS PROGRAM

```
1  #include <stdio.h>
2
3  int main() {
4      int a[10][10], t[10][10];
5      int r, c, i, j;
6
7      printf("Enter rows and columns: ");
8      scanf("%d %d", &r, &c);
9
10     printf("Enter matrix elements:\n");
11     for (i = 0; i < r; i++)
12         for (j = 0; j < c; j++)
13             scanf("%d", &a[i][j]);
14
15
16     for (i = 0; i < r; i++)
17         for (j = 0; j < c; j++)
18             t[j][i] = a[i][j];
19
20     printf("\nTranspose of the matrix:\n");
21     for (i = 0; i < c; i++) {
22         for (j = 0; j < r; j++)
23             printf("%d\t", t[i][j]);
24         printf("\n");
25     }
26
27     return 0;
28 }
```

Output:

Enter rows and columns: 2 3

Enter matrix elements:

1 2 3

4 5 6

Transpose of the matrix:

1 4

2 5

3 6

=== Code Execution Successful ===

