

Program:

```
// WAP to perform Transpose of matrices

#include <stdio.h>

int main()
{
    int arr[3][3];
    printf("Enter 3*3 matrix 9 elements = ");
    for (int i = 0; i < 3; i++)
    {
        for (int j = 0; j < 3; j++)
        {
            scanf("%d", &arr[i][j]);
        }
    }
    printf("\n\n");

    for (int i = 0; i < 3; i++)
    {
        for (int j = 0; j < 3; j++)
        {
            printf("%d \t", arr[i][j]);
        }
        printf("\n");
    }

    printf("\n\n");

    printf("Transpose of matrix = \n\n");

    for (int i = 0; i < 3; i++)
    {
        for (int j = 0; j < 3; j++)
        {
            printf("%d \t", arr[j][i]);
        }
        printf("\n");
    }

    return 0;
}
```

Output :

```
PS E:\SGGS\2ND YEAR\C> cd "e:\SGGS\2ND YEAR\C\" ; i
Enter 3*3 matrix 9 elements = 1 2 3 4 5 6 7 8 9
```

1	2	3
4	5	6
7	8	9

Transpose of matrix =

1	4	7
2	5	8
3	6	9