# Write a C Program to rotate the matrix by K times.

```c
#include<stdio.h>

int main() {

 int matrix[100][100],M,N,k;

 printf("Enter size of matrix\n");

 scanf("%d%d",&M,&N);

 printf("Enter the matrix elements\n");

 for( int i = 0 ; i < M ; i++)

  {

    for(int j = 0 ; j < N ; j++)

    {

       scanf("%d",&matrix[i][j]); // Input the matrix elements

    }


  }

  printf("Enter k value\n");

  scanf("%d",&k);

  int temp[M];

 k = k % M;

 for (int i = 0; i < N; i++) {

  for (int t = 0; t < M - k; t++)

    temp[t] = matrix[i][t];

  for (int j = M - k; j < M; j++)

    matrix[i][j - M + k] = matrix[i][j];

    for (int j = k; j < M; j++)
```

```c
            matrix[i][j] = temp[j - k];

    printf("The rotated matrix is\n");

    for (int i=0; i < N; i++)
    {
        for (int j = 0; j < M; j++)
        {
            printf("%d ",matrix[i][j]);
        }
        printf("\n");
    }

    return 0;
}
```

input

```
Enter size of matrix
3

3
Enter the matrix elements
10 20 30
40 50 60
70 80 90
Enter k value
2
The rotated matrix is
20 30 10
40 50 60
70 80 90
The rotated matrix is
20 30 10
50 60 40
70 80 90
The rotated matrix is
20 30 10
50 60 40
80 90 70


...Program finished with exit code 0
Press ENTER to exit console.
```