C:\Users\Debby\Documents\cpp\Matrix\testMatrix.cpp - Sublime Text (UNREGISTERED)

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Matrix.cpp | Matrix.h | testMatrix.cpp

```cpp
#include <stdio.h>
#include "Matrix.h"

int main (){

    int data [10][10], r, c, i, j;

    printf("Matrix Transposer (Max Row & Column = 10)\n");
    printf("Enter rows of matrix : ");
    scanf("%i", &r);
    printf("Enter columns of matrix : ");
    scanf("%i", &c);

    printf("Enter elements of matrix : \n");
    for (i = 0; i < r; i++){
        for (j = 0; j < c; j++){
            printf("Element [%i][%i]: ", i, j);
            scanf("%i", &data[i][j]);
        }
    }

    Matrix m1;
    m1.setRow(r);
    m1.setColumn(c);
    m1.setMatrix (data);

    printf("\n");
    printf("Original Matrix\n");
    printf("", m1.getOriMatrix());
    printf("Transpose Matrix\n");
    printf("", m1.getTMatrix());

    return 0;
}
```

Window Snip

Line 26, Column 1 Tab Size: 4 C++

C:\Users\Debby\Documents\cpp\Matrix\Matrix.h - Sublime Text (UNREGISTERED)

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Matrix.cpp | Matrix.h | testMatrix.cpp

```
1  class Matrix{
2
3      public:
4      void setMatrix(int Ori [10][10]);
5      void setRow (int ri);
6      void setColumn (int ci);
7          int getOriMatrix(void);
8          int getTMatrix(void);
9
10 };
11
12
```

Window Snip

Line 11, Column 1 Tab Size: 4 C++

C:\Users\Debby\Documents\cpp\Matrix\Matrix.cpp - Sublime Text (UNREGISTERED)

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Matrix.cpp | Matrix.h | testMatrix.cpp

```cpp
#include "Matrix.h"
#include <stdio.h>

int mtx[10][10], r, c, data;

void Matrix::setRow (int ri){
    r = ri;
}

void Matrix::setColumn (int ci){
    c = ci;
}

void Matrix::setMatrix(int Ori[10][10]){
    for (int p = 0; p < r ; p++)
     {
        for (int k = 0; k < c; k++)
        {
         mtx[p][k] = Ori [p][k];
        }
    }
}

int Matrix::getOriMatrix(){
     for (int p = 0; p < r ; p++)
     {
        for (int k = 0; k < c; k++)
        {
         printf("%i", mtx[p][k]);
        }
         printf("\n");
        }
    printf("\n");
    return 0;
}
```

Line 11, Column 12 Tab Size: 4 C++

```
23
24  int Matrix::getOriMatrix(){
25       for (int p = 0; p < r ; p++)
26       {
27          for (int k = 0; k < c; k++)
28          {
29           printf("%i", mtx[p][k]);
30          }
31           printf("\n");
32          }
33      printf("\n");
34      return 0;
35  }
36
37  int Matrix::getTMatrix(){
38      for (int p = 0; p < c; p++)
39          {
40              for (int k = 0; k < r; k++)
41              {
42              printf("%i ", mtx[k][p]);
43          }
44           printf("\n");
45          }
46      printf("\n");
47      return 0;
48  }
49
50
51
52
53
54
```

Command Prompt

```
C:\Users\Debby\Documents\cpp\Matrix>g++ testMatrix.cpp Matrix.cpp -o a

C:\Users\Debby\Documents\cpp\Matrix>a
Matrix Transposer (Max Row & Column = 10)
Enter rows of matrix : 3
Enter columns of matrix : 2
Enter elements of matrix :
Element [0][0]: 1
Element [0][1]: 2
Element [1][0]: 3
Element [1][1]: 4
Element [2][0]: 5
Element [2][1]: 6

Original Matrix
12
34
56

Transpose Matrix
1 3 5
2 4 6


C:\Users\Debby\Documents\cpp\Matrix>
```