# CS 2026 – Spring 2010
# Assignment 1
# 1/29/2010
# Due: 2/5/2010 11:59 PM

In this assignment, you will implement a small program that manipulates the matrix. A matrix is a two dimensional array. Here's a 2×3 matrix,

1 2 3
4 5 6

The matrix and an operator will be passed to your application as a program argument. The format of the argument would be <#rows> <#cols> <data, row by row> <operator>. There are three types of operators, I, D, and T. The meaning of each operator is as follows.

I – Increase all elements in this matrix by 1.
D – Decrease all elements in this matrix by 1.
T – Return the transpose of this matrix.

For example,

1) :~> MatrixApplication.exe 2 3 1 2 3 4 5 6 I
Returns
2 3 4
5 6 7

2) :~> MatrixApplication.exe 2 3 1 2 3 4 5 6 D
Returns
0 1 2
3 4 5

3) :~> MatrixApplication.exe 2 3 1 2 3 4 5 6 T
Returns
1 4
2 5
3 6

You can make the following assumptions.

- The number of elements in the matrix is always <#rows> * <#cols>.
- All elements in the matrix are integer.
- <#rows> and <#cols> are both positive integers.
- The operators are always uppercased.
- You don't have to create a class Matrix if you don't know how to do that. Using two-dimensional array is enough for this assignment.

**C# Coding Conventions**

- {}. Unlike Java, it is recommended that you use this style:
  ```
  for (int i = 0; i < 10; i++)
  {
      <statements>
  }
  ```
  rather than
  ```
  for (int i = 0; i < 10; i++) {
      <statements>
  }
  ```
- Variable name. Compose variable names using **mixed case letters** starting with a lower case letter. For example, use salesOrder rather than SalesOrder or sales_order.
- Class name. Use MyProgram rather than myProgram, Myprogram, or my_program.
- Method name. The same as class name. It's recommended that one name his/her method starting with a verb. For example, GetName(), SetName(string name).

**Save your program in a single file called Program.cs and submit it to CMS.**

Good luck!