

Practical 5 (due 2022-09-02 @ 09:00)

This practical forms the foundation upon which you will develop the following practical on operator overloading and generic programming. Create a `Matrix2D` class containing a dynamically allocated two-dimensional integer array with the following components (member variables and member functions):

- Constructors:
 - A no-args constructor.
 - A fully parameterized constructor which takes in a set of three integers representing the number of rows, columns, and the initial value of each integer in the underlying array.
 - A copy constructor.
- A destructor.
- Accessors for the numbers of rows, columns, and individual values in the underlying array.
- Mutators for changing the underlying values in the array (by way of their row/column value).
- A `toString()` function which does not have any parameters and returns a string representation of the internal array.
- Create a `main` function which demonstrates the functionality of the `Matrix2D` class.

Mark sheet		
	Design	10
	Matrix2D class	10
	Constructors	10
	Copy Constructor	10
	Destructor	10
	Accessors	10
	Mutators	10
	toString member function	10
	main function demonstrates the functionality of the Matrix2D class	10
	Total	/90