Assignment 2 – Part 2

Write a class called SudokuBoard<yourName>. This class provides the data structure and the functionality of a sudoku board.

An instance of this class creates a sudoku board as a linear array, called boardCells, whose size is computed using the two parameters it receives representing the boxWidth and the boxHeight of a Sudoku board.

Write methods for each of the following tasks. Each method takes a cell number in boardCells as a parameter, and returns

1. the row to which the cell belongs in the 2D form of the Sudoku board;
2. the column to which the cell belongs in the 2D form of the Sudoku board;
3. the value in the cell; and
4. the box in which the cell lies in the 2D form of the Sudoku board.

Write “get” methods for each of the variables boxWidth, boxHeight, boardSize (i.e. the number of rows or columns in the Sudoku board), and numberOfCells in the Sudoku board.

Write a toString() to print the sudoku board in 2D format.

Write a “set” method to set the value of a given cell in boardCells to a given integer.

Recall that the (i, j)th cell in an n X n (read: n by n) array corresponds to the cell at index i \* n + j in a linear array.