Arrays Lab

This lab has two programs to submit.

# Program 1

For this program you will use parallel arrays to store student data.

The program will prompt the user for how many student records they would like to enter (up to a maximum of 5). The program will prompt the user to enter the name and a letter grade that the student got in the class. The program will print out all the data for each of the arrays. It will then print out the number of records and then all the student records in a formatted table:

Example table output:

Records: 4

|  |  |
| --- | --- |
| Yasiel Puig | C |
| Omowunmi Sadik | B |
| Annie J. Easley | A |
| Elon Musk | F |

The output must use printf() to do the table formatting, and must use something other than spaces to format the table.

Grading Rubric:

|  |  |
| --- | --- |
| Points | Requirement |
| 1 | Code compiles and runs without errors. |
| 1 | An array with a size of no more than 5 is used. |
| 4 | Correctly gets validated input from user. |
| 2 | Uses printf |
| 2 | Output is formatted like the example without relying on hard coded spaces. |

# Program 2

For this program, you will be creating a simple tic-tac-toe board for practice. While this program will use arrays, it is more practice with problem solving. You will need to think about this and plan before jumping in to write code (as you should always do!).

In this program you will define three different arrays of Strings, each array should be length 3. Initialize the arrays as you see fit. Print out the arrays in a formatted way that will make sense as a tic-tac-tow board to a user. Have the user select one of the squares on your board. Change the value of the square they selected to an X and print the board again.

Grading Rubric:

|  |  |
| --- | --- |
| Points | Requirement |
| 1 | Code compiles and runs without errors. |
| 1 | Three arrays are correctly used. |
| 3 | Output correctly shows a formatted tic-tac-toe board. |
| 3 | Gets validated user input to make a selection. |
| 2 | User selection is corrected updated and new board is correctly printed. |