CSCI 2302

1D Lab

Purpose:

Arrays are among the oldest and most important data structures, and are used by almost every program. They are also used to implement many other data structures, such as lists and strings. They effectively exploit the addressing logic of computers. In most modern computers and many external storage devices, the memory is a one-dimensional array of words, whose indices are their addresses. Processors, especially vector processors, are often optimized for array operations.

Arrays are useful mostly because the element indices can be computed at run time. Among other things, this feature allows a single iterative statement to process arbitrarily many elements of an array. For that reason, the elements of an array data structure are required to have the same size and should use the same data representation.

Learning Goals: To apply the knowledge of working with 1D arrays.

Notes: See Chapter 7 notes.

Task: Complete the steps outlined below in a file named MySFAUsername\_OneDLab.java.

1. Create the alphabet (try a for loop to create the alphabet).
2. Print out the alphabet (try a for each loop).
3. Print out the alphabet in reverse.
4. Print out the 10th character.
5. Print out the last character – without hardcoding the numeric index value.

Submit: Submit your MySFAUsername\_OneDLab.java file in the Dropbox in Brightspace by D2L.