CSE 110 - Lab 8

This lab is for practicing 1-D arrays.

Use the following Coding Guidelines:

• When declaring a variable, you usually want to initialize it.

• Use white space to make your program more readable.

• Use comments after the ending brace of classes, methods, and blocks to identify to which block it belongs.

Assignments Documentation:

At the beginning of each programming assignment you must have a comment block with the following information:

```
/*-----------------------------------------------------------------------
// AUTHOR:         (Put your name here)
// FILENAME:       Lab6.java
// SPECIFICATION:    This program is for practicing arrays.
// INSTRUCTIONS:     Read the following code skeleton and add your own code
//                 according to the comments.  Ask your TA or your class-
//                 mates for help and/or clarification.  When you see
//                 //--> that is where you need to add code.
// LAB LETTER:     (Put your lab letter)
//-----------------------------------------------------------------------*/
```

Getting Started

Create a class called **Lab8**. Use the same setup for setting up your class and main method as you did for the previous assignments. Be sure to name your file **Lab8.java**.

Hints

Please replace //--> with the correct program to finish the task according to the corresponding comment.

Please replace ??? with the correct program to enable the program to run as required.

```
/*-----------------------------------------------------------------------
// AUTHOR:         (Put your name here)
// FILENAME:       Lab8.java
// SPECIFICATION:    This program is for practicing arrays.
//
// INSTRUCTIONS:     Read the following code skeleton and add your own code
//                 according to the comments.  Ask your TA or your class-
//                 mates for help and/or clarification.  When you see
//                 //--> that is where you need to add code.
// LAB LETTER: (Put your lab letter)
//-----------------------------------------------------------------------*/

//import Scanner class
import java.util.Scanner;

//declare the class Lab6
public class Lab8
{

    //declare the main method
    public static void main(String[] args)
    {
```

```
	// Define scan object of the type Scanner class
	//-->


	//define an int variable <size>
	//—>


	//Declare an integer array
	int[] int_arr;

	//Assign it memory location. Specify the dimension of the array(Let's
take 5)
	int_arr = new int[5];


	//Using a for loop which runs till <size>, read values from the user
and store it in the integer array.

	for (???; ??? ; ???) {

		// Read the value the user enters
		//—>
		//Assign it to the ith element of the array.
		//—>

	}

	//TASK 1
	//Using a for loop which runs till <size>, print all the values of the
array and find the sum of all elements of the array.
	sum = 0;

	for (???; ??? ; ???) {

		// Print all the values of the array.
		//—>
		//Add the element to sum
		//—>
	}

	//Print the value of sum
	//—>

	//TASK 2
	//Using the array that we've created, we'll rotate the elements in the
arrays.
	//Given an array, after computation the array will be with the elements
"rotated left" so {1, 2, 3} yields {2, 3, 1}.

	//Store the last element: int last = int_arr[int_arr.length - 1];
	//Store the first element: int first = int_arr[0];
```

```
        for(int i =0; i< int_arr.length -1; i++)
        {
              //Shift the elements one position upward.

        }


        //Assign the last and first variables to their positions.

        //Display the array again using a for-loop
        for (???; ??? ; ???) {

              // Print all the values of the array.
              //—>
        }


        //close scanner object
    }
}
```

SAMPLE OUTPUT:

```
Please enter value for index 0:
10
Please enter value for index 1:
20
Please enter value for index 2:
33
Please enter value for index 3:
40
Please enter value for index 4:
50
Value at index 0: 10
Value at index 1: 20
Value at index 2: 33
Value at index 3: 40
Value at index 4: 50

The sum of all the elements of the array: 153

Array after left rotation:

Value at index 0: 20
Value at index 1: 33
```

```
Value at index 2: 40
Value at index 3: 50
Value at index 4: 10
```