

Name: _____ **CSCE 146 Program7** (Ch9.2.3) Java Program: Quick Sort

Setup

1. Be sure Java and Eclipse are installed. In Eclipse go to File/New/Java Project.
2. Name it (with no spaces): **Program7YourlastnameYourfirstname**
3. Go to File/New/Class name it the exact same as the project
4. Import the following: import java.util.Scanner;
5. Go to File/New/Class create another class named Sort

Program

1. In the Main class
 - a. Write a Java program that asks the user to enter ten integers and store these in an array
 - i. Print back the initial array to the user
 - b. Send your array to the quickSort method in the Sort class and store the return in another array
 - i. Print the sorted array to the user
2. In the Sort class:
 - a. Create a method call quickSort that takes in an array of integers, and the first and last indices to sort
 - i. Implement quick sort algorithm with a base case and recursive cases for left & right partitions
 1. Print the current state of the array after each swap

Be sure to use proper and clear comments and variable names and include the following information at the top of your code:

Name: *Your Name* **Assignment:** Program7 **Class:** CSCE 146
Semester: Spring 2015 **School:** USC Sumter

Turn in: allow instructor to copy or grade in class

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| <u>Grading:</u> | Function: | objectives met in part1 (get input, send array, display to user) | 20% |
| | | objectives met in part2 (execute Quick Sort algorithm) | 70% |
| | Organization & Style: | doc, code (variable & method names) & clear explanation (messages to user) | 10% |