Assignment #1: Runtime analysis

9/5/2023

9/10 Points

Attempt 1

Review Feedback
9/5/2023

Attempt 1 Score:
9/10

View Feedback

Anonymous Grading: **no**

Unlimited Attempts Allowed

Details

Case study: SelectionSort()

A. [5pts] Show that in both best and worst cases, the order of growth of SelectionSort is quadratic. Can you explain why (in your own words)? Show a detailed derivation of T(n) (see lecture slides).

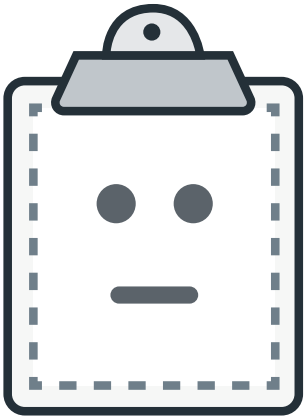
B. [5pts] Write a program in C++ that takes as input an array of integers of length N, and outputs the array sorted in ascending order, performing Selection Sort.
-- N should be user-defined (define an allowed max value or value range)
-- SelectionSort() should be a routine called in main()

Submit:
-- report with run time analysis in pdf format, no screen captures, no scanned images/documents
-- C++ code, along with a screen recording of its compilation/exec.

NOTE:

All files you submit should be in a single file, **X_Y_PA1.zip** or **X_Y_PA1.tar.gz**, where X is your first name (capital letters) and Y is your last name (capital letters). The compressed file should contain:

- Your code files (.cpp, .h, etc.), along with a screen recording of its compilation/exec.
- Any input file(s) that your program uses.
- A Makefile file that contains all the commands needed to compile your code on **tesla.cs.iupui.edu**. All the code will be tested on tesla.cs.iupui.edu with its g++. We should be able to compile your code by executing **make**.
- A **README.txt** file showing how the users should use your program.
- **Report.pdf** with your report/runtime analysis.



Preview Unavailable

PARMINDAR_SINGH_PA1.zip.zip

Download

(https://iu.instructure.com/files/161819554/download?download_frd=1&verifier=pgC4ojsnmn2a7uqVIPcYwbkvMzFP4W9jkHkDoG4j)

You are unable to submit to this assignment as your enrollment in this course has been concluded.