



CS103-Computer Programming 2
Programming Exercise 1
2nd Semester 2023-2024

In this exercise, convert the discussed sorting algorithms as functions that can be called from **one defined main() function**. The main function should:

- ask the user to input the size of the array and its values
- ask the sorting algorithm they want to use (selection, insertion, bubble, mergesort)

For sorting algorithms **insertion, bubble and selection** sort, output the content of the array after each major iteration/pass. In the case of **merge sort**, output the content of the array after each recursive call.

Sample output on the screen and on output file “output.dat”

```
Enter the size of array: 4
Enter the array elements: 3 7 9 2
Which sorting algorithm do you want to use?
1. SELECTION SORT
2. INSERTION SORT
3. BUBBLE SORT
4. MERGE SORT
Type number of choice: 1

Output of SELECTION Sort:
Iteration i=0: 2 7 9 3
Iteration i=1: 2 3 9 7
Iteration i=2: 2 3 7 9

Sorted Array: 2 3 7 9
```

Please submit your source code with following filename:
LASTNAME_FIRSTNAME_PE2.c