

Assignment 1

Instruction

- This assignment is intended to be done by a group of two persons.
- Deadline March 15, 2020 which is collected by class representatives. Deadlines are respected.
- The Answers (codes) are submitted using softcopy in one folder. Only the codes are needed. A (.CPP) file for each questions and one text file that has the Names, ID numbers of students. Folder Name = member1_member2.
- Remember cheating or copying from another resource is strictly forbidden.

Questions

1. Write a function that takes an array of integers as an argument and returns a value based on the sums of even and odd numbers in the array. **Let x = the sum of the odd numbers in the array** and **let y = the sum of the even numbers in the array**. The function should return $x - y$.
2. Write a function that checks a string is a palindrome. The function could have other arguments than the word. A **palindrome** is a string that reads the same forwards as backwards. The following are palindrome strings: **145787541, MADAM, RACECAR, ABABA, 1221**).
3. You are supposed to write a function that accepts an array of integers and the order in which they may be sorted and returns a sorted array. The function body could follow any of the sorting algorithms i.e., Quick sort, Merge sort, Insertion sort, Bubble sort etc. The function should look like this:

```
int my_sorter(int my_array[],bool order = 0)
{

// the code goes here
// remember order is a Boolean variable when it is 0 it directs the sorter to order in
ascending
// and when it becomes 1 it orders descending.
//The function should return a sorted array (single dimension array)
// for returning an array from a function you need to read how to do it

}
```

- In this question you are required to write a program that sorts an array.

Good luck!