## **Closest Numbers**

First sort of the input array. Which is easier to find the difference between the next two elements, which can directly loop through it to find out the minimum.

After that initialized a variable called min which, by using the first two elements. Later it can used to compare other elements in loop

While comparing if I found it less than the previous array, add with it.

## Lily's HomeWork

Take the array and sort it.

First get the value of the first element of the sorted array, and check whether the first element in an input array is the same as it. If it does not swap that element in the input array with the value. Likewise loop through the sorted array and swap the input array. For each swap the swap count is recorded.

Similarly, the input array is reversed and compared with the sorted array as above and check how many steps needed to sort the array. Here swap for reverse input array is recorded.

Now both swaps are compared and the minimum will be returned.

## **Fraudulent Activity Notifications**

Implement two for loops on which the first loop goes through the array and get the first element of prior transaction data. Second loop takes the array of prior transactions. Then we sort the array. We find the median of the array and compare it with the next element of the prior transactions and return notification if it is higher or equal to two times of the median value.

## **Project Euler #22: Names scores**

The input of names are taken from the user, and it is sorted using alphabetical order.

When receiving the query, obtain the string and find the index on the list of names. Then split the name into a character array and check each index of the array with the help of an alphabetical array and sum it. Finally multiply the value of the index of the name on the list of names and score of his name.

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