**Sort comprehensive Experiment Report**

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**One. Experimental purpose**

1) Familiar with the basic operations of the sort.

2) Master the operation of various internal sorting.

3) Deepen the understanding of the sort, and to develop the programming ability of solving practical problems gradually.

**Two. Experimental environment**

A computer with Visual studio 2019.

The experiment lasted for 4 hours.

**Three. Experimental content**

A series of strings are stored in a two-dimensional array. Try to sort them with some sorting algorithms (at least two algorithms, such as insert sorting, bubble sorting, quick sorting, and heap sorting). You should sort them to dictionary order finally.

For example: two-dimensional array is :

char s[][20]={“while”，”if”，“else”，”do”，“for”，”switch”，“case”};

**Four. Important data structures**

Array

**Five. Realization idea analysis**

(1). First, read the value of each item and store it in the array

(2). Sorts the arrays in the array

(3). The ranking method used in this experiment is Insertion Sort and Shell sort

(4). Output sorted results

(5). Run program check

**Six. Program debugging problem analysis**

During the experiment, we have many questions about the number of function runs. After discussion and many experimental improvements, this problem is finally solved.

**Seven. Experimental summary**

Through this experiment, we master the application of file operation, improve the understanding of sorting algorithm and data structure, gradually cultivate the programming ability to solve practical problems, and improve the ability of team cooperation.

**Eight. Crew Division**

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| **Group division** | | |
| **Member name** | **Work done** | **Completion situation** |
| **王镓玮** | **Prepared the Shell sort and data reading and output** | **Completion** |
| **申宝龙** | **Prepared the Insertion Sort and main function** | **Completion** |