NAME

fileSort – sorts a file using the specified sorting algorithm

SYNOPSIS

fileSort [SORT] [FILE]

DESCRIPTION

Sort a specified file containing numeric or string data and output the sorted data to the standard output (STDOUT). File must only contain ASCII characters, and only one data type (numeric or string). Data within the file must be comma separated, using “ , “ as the delimiter. User can choose to use quick sort or insertion sort to sort the file’s data.

-q

Use quick sort to sort the file data

-i

Use insertion sort to sort the file data

AUTHOR

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REPORTING BUGS

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SYNOPSIS

Our project consists of two files: **fileSort.c** and **fileSort.h**

- **fileSort.h** contains the declarations for each of our functions
- **fileSort.c** contains the majority of our project's code and handles all user input, sorting, and output operations

OUTLINE

1. User Input
2. Read in Data File
3. Parse Data into Linked List
4. Determine Data Type and Comparator
5. Run Sorting Algorithm
6. Output Sorted List to STDOUT

DESIGN

int insertionSort(void* toSort, int (*comparator)(void*, void*));

- Sorts data using the insertion sort sorting algorithm

int quickSort(void* toSort, int (*comparator)(void*, void*));

- Sorts data using the quick sort sorting algorithm

int stringCompare(void* arg1, void* arg2);

- Compares two strings lexicographically

int intCompare(void* arg1, void* arg2);

- Compares two integers