

Function of program

This code creates a simple file management program that allows the user to:

1. Display Files: The `displayFiles()` function prints the names of all files stored in the files array.
2. Search for a File: The `searchFile()` function allows the user to enter a file name and then searches for that file within the files array. It performs a case-insensitive search, meaning it doesn't care about capitalization. If the file is found, it displays a message indicating that the file is found. Otherwise, it reports that the file was not found.
3. Sort Files: The `sortFiles()` function provides options to sort the files in either ascending or descending order. It uses the `std::sort` algorithm from the `<algorithm>` header to perform the sorting.
4. Exit: The main function presents a menu-driven interface to the user. The user can select from the options to display files, search for files, sort files, or exit the program.

Here's a breakdown of the key features:

- `MAX_FILES` Constant: Defines a maximum limit for the number of files that can be stored in the program (100 in this case).
- files Array: Stores the names of the files as strings.
- `fileCount` Variable: Keeps track of the actual number of files in the files array.
- `displayFiles()` Function: Iterates through the files array and prints each file name.
- `searchFile()` Function: Takes a file name from the user, converts it to lowercase, and then compares it with the lowercase versions of the file names in the files array.
- `sortFiles()` Function: Asks the user for a sorting order (ascending or descending) and then uses `std::sort` to sort the files array accordingly.
- `main()` Function: Presents the menu, takes user input, and calls the appropriate functions based on the user's choice.

In essence, this program provides basic file management functionalities within a simple console application. It demonstrates the use of arrays, string manipulation, sorting algorithms, and basic user input/output in C++.