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Code

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// Name: Prasoon Gupta
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//Assumptions: The user does not input more than 1 line in the program when the program asks
for command.

#include <iostream>
#include <string>
#include <vector>
#include <fstream>

using namespace std;


const int REQ_NUM_OF_ARG = 2;
vector<string> tempStorage;
int NumberOfData = 0;


void updateFile(char* argv[]) {

        ofstream file(argv[1]);

        if (file.is_open()) {

                for (int i = 1; i <= NumberOfData; i++) {
                        file << i << ". " << tempStorage[i - 1] << endl;
                }

                file.close();
        }

        return;
}

void add(string userData) {
        tempStorage.push_back(userData);
        return;
}

void del(int rowToDelete) {
```

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        tempStorage.erase(tempStorage.begin() + rowToDelete - 1);
        return;
}

void display(char* argv[]) {
        if (NumberOfData > 0) {
                for (int i = 1; i <= NumberOfData; i++) {
                        cout << i << ". " << tempStorage[i - 1] << endl;
                }
        }
        else {
                cout << argv[1] << " is empty." << endl;
        }

        return;
}

void clear() {
        tempStorage.erase(tempStorage.begin(), tempStorage.end());
        return;
}

void collectData(char* argv[]) {

        string userCommand = "";
        string userData = "";
        int rowToDelete = NULL;

        cout << "command: ";
        cin >> userCommand;

        while (userCommand != "exit") {

                if (userCommand == "add") {
                        getline(cin, userData);
                        add(userData);
                        NumberOfData++;
                        updateFile(argv);
                        cout << "added to " << argv[1] << ": '" << userData << "'" << endl;
                }
                else if (userCommand == "delete") {
                        cin >> rowToDelete;
                        cout << "deleted from " << argv[1] << ": '";
                        cout << tempStorage[rowToDelete - 1] << "'" << endl;
                        del(rowToDelete);
                        NumberOfData--;
                        updateFile(argv);
                }
                else if (userCommand == "display") {
                        display(argv);
                }
                else if (userCommand == "clear") {
                        clear();
                        NumberOfData = 0;
                        updateFile(argv);
                        cout << "all content deleted from " << argv[1] << endl;
                }
                else {
                        cout << "INVALID INPUT.\n";
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2

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                }

                cout << "command: ";
                cin >> userCommand;
                cout << endl;
                userData = "";
        }

        return;
}


int main(int argc, char* argv[]) {

        if (argc < REQ_NUM_OF_ARG) {
                cout << "Error: Uable to start TextBuddy" << endl;
        }
        else {
                cout << "Welcome to TextBuddy. " << argv[1] << " is ready for use." << endl;

                collectData(argv);
        }

        return 0;


}
```

TestInput.txt

add little brown fox

display

add jumped over the moon

display

add for an adventure

display

delete 3

display

clear

display

add In the game of thrones you win or you die

display

add rains of castamere

display

exit

ExpectedOutput.txt

1. In the game of thrones you win or you die

2. rains of castamere