```
#include <iostream>
#include <fstream>
#include <string.h>
#include <conio.h>
#include <stdlib.h>
#include <string>
using namespace std;

class Set {
private:
	int numOfsport = 0;
	string collection;
	string items[50];
public:
	void displayAll();
	void search(char ch[]);
	void add(string name);
	void append();
};
int main() {
	char ch[50] = {};
	Set country;
	string item;
	ifstream inFile;
   inFile.open("sports.txt");
	if (inFile.fail()) {
	cout << "Error opening input file!" << endl;
	exit(1);
	}

	while (!inFile.eof()) {
	getline(inFile, item); // read in text from text file into item
	country.add(item); // call the add function to add to a string type
	}
	inFile.close();
cout << "Sport List: " << endl;
   cout << "------------------------------------------------------ " << endl;

	country.displayAll();
	cout << endl;
	int num = 0;
	int size = 0;
	cout << "To search for a sport, enter a letter." << endl;

	while (1) {
	if (_kbhit()) {
	ch[size++] = _getch();
	if (ch[size - 1] == '\b') {
	if (size == 1) {
```

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                size = 0;
            ch[size] = '\0';
        }
        else {
            ch[size - 1] = '\0';
            ch[size - 2] = '\0';
                size = size - 2;
        }
        }
        cout << ch;
       system("cls");
        size = strlen(ch);
        cout << "- - - - - - - - - - - - - - - - - - - - - - - -" << endl;
        cout << "Searching database: " << ch << endl;
        cout << "- - - - - - - - - - - - - - - - - - - - - - - -" << endl;
          if (size == 3)
          country.search(ch);
        else if (size > 3) {
          country.append();
          system("cls");
        /*for (int i = 0; i < 50; i++) {
        ch[i] = ' ';
        } */
                cout << "Updated sports: " << endl;
          country.displayAll();
        }
        else
          country.displayAll();
        }
        }
        return 0;
}
void Set::displayAll() {
        for (int i = 0; i < this->numOfsport; i++)
        cout << this->items[i] << endl;
}
void Set::search(char ch[]) {
        int num = 0;
        bool exact = true; // bool to check if char matches
        for (int counter = 0; counter < this->numOfsport; counter++) { // check all items of the char array
        for (int i = 0; i < strlen(ch); i++) { // check each char of the item
        if (ch[i] == items[counter][i])
          //ch[num++] = _getch();
        continue;
        else {
        exact = false; // char does not match
        break;
        }
        }
```

```
            if (exact == true)
            cout << items[counter] << endl; // print the item that is the same as entered
            exact = true;
            }
}
void Set::add(string name) {
            this->collection = name;
   this->items[numOfsport++] = this->collection;
}
void Set::append() {
            string newCountry;
            bool exact = false;
            char answer;
            cout << "This sport does not exist. Would you like to add this sport? (Y/N) ";
            cin >> answer;
            if (answer == 'Y') {
            cout << "What sport would you like to add? ";
            cin >> newCountry;
            for (int i = 0; i < numOfsport; i++)
            {
            if (items[i] == newCountry)
            {
            exact = true;
            break;
            }
            }
            if (exact == false)
            {
           items[numOfsport] = newCountry;
            numOfsport++;
            cout << "New sport was added." << endl;
            }
            else
            cout << "This sport already exist. " << endl;
            }
}
```

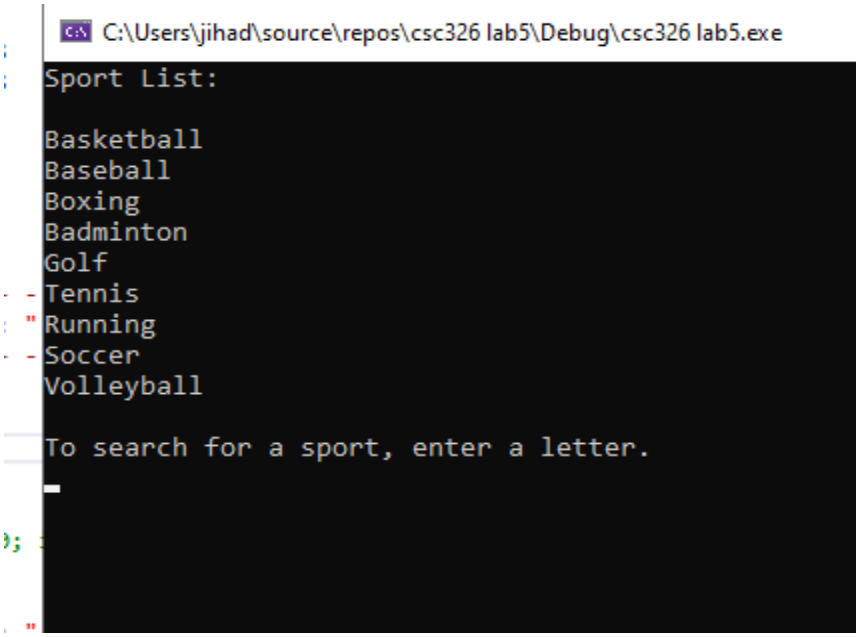
---

sports.txt*

```
Basketball
Baseball
Boxing
Badminton
Golf
Tennis
Running
Soccer
Volleyball
```

Output:

Before:



After: