```cpp
#include <fstream>
#include <iomanip>
#include <iostream>
#include <string.h>

using namespace std;

class contact {
    long ph;
    char name[20], add[20], email[30];

public:
    void create_contact() {
        cout << "Phone: ";
        cin >> ph;
        cout << "Name: ";
        cin.ignore();
        cin.getline(name, 20);
        cout << "Address: ";
        cin.getline(add, 20);
        cout << "Email address: ";
        cin.getline(email, 30);
        cout << "\n";
    }

    void show_contact() {
        cout << endl
            << "Phone #: " << ph;
        cout << endl
            << "Name: " << name;
        cout << endl
            << "Address: " << add;
        cout << endl
            << "Email Address : " << email;
    }

    long getPhone() {
        return ph;
    }

    char* getName() {
        return name;
    }

    char* getAddress() {
        return add;
    }
```

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    char* getEmail() {
        return email;
    }
};

fstream fp;
contact cont;

void save_contact() {
    fp.open("contactBook.dat", ios::out | ios::app);
    cont.create_contact();
    fp.write((char*)&cont, sizeof(contact));
    fp.close();
    cout << endl
        << endl
        << "Contact Has Been Successfully Created...";
    cin.ignore();
    cin.get();
}

void show_all_contacts() {
    system("cls");
    cout << "\n\t\t================================\n\t\t\tLIST OF
CONTACTS\n\t\t================================\n";
    fp.open("contactBook.dat", ios::in);
    while (fp.read((char*)&cont, sizeof(contact))) {
        cont.show_contact();
        cout << endl
            << "==========================================\n"
            << endl;
    }
    fp.close();
}

void display_contact(int num) {
    bool found;
    int ch;
    found = false;
    fp.open("contactBook.dat", ios::in);
    while (fp.read((char*)&cont, sizeof(contact))) {
        if (cont.getPhone() == num) {
            system("cls");
            cont.show_contact();
            found = true;
        }
    }
    fp.close();
    if (found == false) {
```

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            cout << "\n\nNo record found...";
        }
        cin.ignore();
        cin.get();
}

void edit_contact() {
    int num;
    bool found = false;
    system("cls");
    cout << "..::Edit contact\n==============================\n\n\t..::Enter the
number of contact to edit:";
    cin >> num;
    fp.open("contactBook.dat", ios::in | ios::out);
    while (fp.read((char*)&cont, sizeof(contact)) && found == false) {
        if (cont.getPhone() == num) {
            cont.show_contact();
            cout << "\nPlease Enter The New Details of Contact: " << endl;
            cont.create_contact();
            int pos = -1 * sizeof(cont);
            fp.seekp(pos, ios::cur);
            fp.write((char*)&cont, sizeof(cont));
            cout << endl
                << endl
                << "\t Contact Successfully Updated...";
            found = true;
        }
    }
    fp.close();
    if (found == false)
        cout << endl
            << endl
            << "Contact Not Found...";
}

void delete_contact() {
    int num;
    system("cls");
    cout << endl
        << endl
        << "Please Enter The contact #: ";
    cin >> num;
    fp.open("contactBook.dat", ios::in | ios::out);
    fstream fp2;
    fp2.open("Temp.dat", ios::out);
    fp.seekg(0, ios::beg);
    while (fp.read((char*)&cont, sizeof(contact))) {
        if (cont.getPhone() != num) {
```

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            fp2.write((char*)&cont, sizeof(contact));
        }
    }
    fp2.close();
    fp.close();
    remove("contactBook.dat");
    rename("Temp.dat", "contactBook.dat");
    cout << endl
         << endl
         << "\tContact Deleted...";
}

int main() {
    system("cls");
    system("color 03");

    for (;;) {
        int ch;
        cout << "\n\n\n\t **** Welcome to Contact Management System ****";
        cout << "\n\n\tMAIN MENU\n\t====================";
        cout << "\n\t[1] Add a new Contact";
        cout << "\n\t[2] List all Contacts";
        cout << "\n\t[3] Search for contact";
        cout << "\n\t[4] Edit a Contact";
        cout << "\n\t[5] Delete a Contact";
        cout << "\n\t[0] Exit";
        cout << "\n\t==================";
        cout << "\n\n\tEnter the choice: ";
        cin >> ch;

        switch (ch) {
            case 0:
                cout << "\n\n\tThank you for using CMS...";
                exit(0);
                break;

            case 1:
                save_contact();
                break;

            case 2:
                show_all_contacts();
                break;

            case 3:
                int num;
                system("cls");
                cout << "\n\n\tPhone: ";
```

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            cin >> num;
            display_contact(num);
            break;

        case 4:
            edit_contact();
            break;

        case 5:
            delete_contact();
            break;

        default:
            cout << "\nInvalid choice. Please try again.";
            break;
        }

        int opt;
        cout << "\n\n\n..::Enter the Choice:\n\n\t[1] Main Menu\t\t[0] Exit\n";
        cin >> opt;

        switch (opt) {
        case 1:
            system("cls");
            continue;

        case 0:
            cout << "\n\n\tThank you for using CMS...";
            exit(0);

        default:
            cout << "\nInvalid choice. Exiting...";
            exit(0);
        }
    }

    return 0;
}
```