Main.cpp

```
#include "people.h"
#include <iostream>

using namespace std;

int main()
{
    People person;
    const int NAME_SIZE = 51;
    const int ADDRESS_SIZE = 51;
    const int PHONE_SIZE = 14;
    char input[51];
    int intInput;
    double doubleInput;
    char again;

    do
    {
        // Get data about a person.
        cout << "Enter the following data about a person:\n";

        cout << "Name: ";
        cin.getline(input, NAME_SIZE);
        person.setName(input);

        cout << "Address: ";
        cin.getline(input, ADDRESS_SIZE);
        person.setAddress(input);

        cout << "Age: ";
        cin >> intInput;
        person.setAge(intInput);
```

```
        cin.ignore(); // Skip over the remaining newline.
        cin.clear();

        cout << "Phone: ";
        cin.getline(input, PHONE_SIZE);
        person.setPhone(input);

        cout << "Salary: ";
        cin >> doubleInput;
        person.setSalary(doubleInput);
        cin.ignore();

        // Write the contents of the person structure to the
file.
        person.writeToFile(person);

        // Determine wheter the user wants to write another
record.
        cout << "Do you want to enter another record? ";
        cin >> again;
        cin.ignore(); // Skip over the remaining newline.
    } while (again == 'Y' || again == 'y');

    cout << endl;

    People ppl;
    ppl.readFromFile(ppl);

    return 0;
}
```

People.h

```
#ifndef PEOPLE_H
```

```
#define PEOPLE_H

class People
{
private:
    char name[51] = {};
    char address[51] = {};
    int age = 0;
    char phone[14] = {};
    double salary = 0;

public:
    void setName(char[]);
    char *getName();
    void setAge(int);
    int getAge();
    void setAddress(char[]);
    char *getAddress();
    void setPhone(char[]);
    char *getPhone();
    void setSalary(double);
    double getSalary();
    void writeToFile(People);
    void readFromFile(People);
};

#endif
```

People.cpp

```
#include "people.h"
#include <iostream>
#include <fstream>
using namespace std;
```

```
void People::setName(char input[])
{
    int count = 0;
    while (input[count] != '\0')
    {
        name[count] = input[count];
        count++;
    }
}

char *People::getName()
{
    return name;
}

void People::setAge(int input)
{
    age = input;
}

int People::getAge()
{
    return age;
}

void People::setAddress(char input[])
{
    int count = 0;
    while (input[count] != '\0')
    {
        address[count] = input[count];
        count++;
```

```
    }
}

char *People::getAddress()
{
    return address;
}

void People::setPhone(char input[])
{
    int count = 0;
    while (input[count] != '\0')
    {
        phone[count] = input[count];
        count++;
    }
}

char *People::getPhone()
{
    return phone;
}

void People::setSalary(double input)
{
    salary = input;
}

double People::getSalary()
{
    return salary;
}
```

```
void People::writeToFile(People person)
{
    fstream peopleFile("people.dat", ios::app | ios::binary);

    if (!peopleFile)
    {
        cout << "Error opening file. Program aborting.\n";
    }
    else
    {
        peopleFile.write(reinterpret_cast<char *>(&person),
sizeof(person));
        peopleFile.close();
    }
}

void People::readFromFile(People person)
{
    fstream peopleFile;
    peopleFile.open("people.dat", ios::in | ios::binary);
    if (!peopleFile)
    {
        cout << "Error opening file. Program aborting.\n";
    }
    else
    {
        cout << "Here are the people in the file: \n\n";
        // Read the first record from the file.
        peopleFile.read(reinterpret_cast<char *>(&person),
sizeof(person));

        // While not at the end of the file,
        // display the records.
```

```
        while (!peopleFile.eof())
        {
            // Display the record.
            cout << "Name: ";
            cout << person.name << endl;
            cout << "Age: ";
            cout << person.age << endl;
            cout << "Address line: ";
            cout << person.address << endl;
            cout << "Phone: ";
            cout << person.phone << endl;
            cout << "Salary: ";
            cout << person.salary << endl;

            // Wait for the user to press the Enter key.
            cout << "\nPress the Enter key to see the next
record.\n";
            cin.get();

            // Read the next record from the file.
            peopleFile.read(reinterpret_cast<char *>(&person),
sizeof(person));
        }

        // Close the file.
        cout << "That's all the data in the file!\n";
        peopleFile.close();
    }
}
```

Output:

```
Enter the following data about a person:
Name: Test Name 1
Address: Test Address 1
Age: 20
Phone: 111-111-1111
Salary: 1000.75
Do you want to enter another record? y
Enter the following data about a person:
Name: Testing Name 2
Address: Testing Address 2
Age: 25
Phone: 222-222-2222
Salary: 200.55
Do you want to enter another record? y
Enter the following data about a person:
Name: Testing Name 3
Address: Testing Address 3
Age: 30
Phone: 333-333-3333
Salary: 375.90
Do you want to enter another record? y
Enter the following data about a person:
Name: Testing Name 4
Address: Testing Address 4
Age: 35
Phone: 444-444-4444
Salary: 4570.99
Do you want to enter another record? n

Here are the people in the file:
```

```
Here are the people in the file:

Name: Test Name 1
Age: 20
Address line: Test Address 1
Phone: 111-111-1111
Salary: 1000.75

Press the Enter key to see the next record.

Name: Testing Name 2
Age: 25
Address line: Testing Address 2
Phone: 222-222-2222
Salary: 200.55

Press the Enter key to see the next record.

Name: Testing Name 3
Age: 30
Address line: Testing Address 3
Phone: 333-333-3333
Salary: 375.9

Press the Enter key to see the next record.

Name: Testing Name 4
Age: 35
Address line: Testing Address 4
Phone: 444-444-4444
Salary: 4570.99

Press the Enter key to see the next record.

That's all the data in the file!
```