```
using System;
using System.Collections;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace PhonebookAssignment
{
    class Program
    {
        static void Main(string[] args)
        {
            Dictionary<double,Person> phoneBook = new Dictionary<double, Person>
              ();
            do
            {
                Console.Write("Please enter a number from the selection bellow:
                  \n" +
                    "1)Add new Number\n"+
                    "2)Search by First Name\n" +
                    "3)Search by Last Name\n" +
                    "4)Search by City\n"+
                    "5)Delete by First Name\n"+
                    "6)Sort the list by contact's first name\n"+
                    "7)Exit\n");
                try {
                    switch (Convert.ToInt32(Console.ReadLine()))
                    {
                        case 1:
                            {
                                Console.WriteLine("Enter Phone Number then
                     information to add a person");
                                do
                                {
                                    try
                                    {
                                        double phoneNumber = Convert.ToDouble
                     (Console.ReadLine());

                                        phoneBook.Add(phoneNumber, MakePerson
                     (phoneNumber));
                                        Console.WriteLine("Added");
                                    }
                                    catch { Console.WriteLine("Something went
                     wrong please try agian"); }

                                    Console.WriteLine("Please enter another phone
                      number or stop to stop");
                                } while (Console.ReadLine() != "stop");
                                Console.WriteLine();
                                break;
```

```
46                              }
47                          case 2:
48                              {
49                                  Console.Write("Who would you like to find: ");
50                                  string nameToFind = Console.ReadLine();
51                                  foreach (Person person in phoneBook.Values)
52                                  {
53                                      if (person.firstName .Equals(nameToFind))
54                                      {
55                                          DisplayPerson(person);
56                                      }
57
58                                  }
59                                  break;
60                              }
61                          case 3:
62                              {
63                                  Console.Write("Who would you like to find: ");
64                                  string lastNameToFind = Console.ReadLine();
65                                  foreach (Person person in phoneBook.Values)
66                                  {
67                                      if (person.lastName.Equals(lastNameToFind))
68                                      {
69                                          DisplayPerson(person);
70                                      }
71                                  }
72                                  break;
73                              }
74                          case 4:
75                              {
76                                  Console.Write("Which City do you want to search
                        for: ");
77                                  string cityToFind = Console.ReadLine();
78                                  foreach (Person person in phoneBook.Values)
79                                  {
80                                      if (person.address.city.Equals(cityToFind))
81                                      {
82                                          DisplayPerson(person);
83                                      }
84                                  }
85                                  break;
86                              }
87                          case 5:
88                              {
89                                  Console.Write("Who would you like to delete: ");
90                                  string nameToFind = Console.ReadLine();
91                                  Dictionary<double,Person> tempHastable =
                        phoneBook;
92                                  foreach (Person person in phoneBook.Values)
93                                  {
94                                      if (person.firstName.Equals(nameToFind))
95                                      {
```

```
96                                          tempHastable.Remove(person.phoneNumber);
97                                      }
98
99                                  }
100                                 phoneBook = tempHastable;
101                                 break;
102                             }
103                         case 6:
104                             {
105                                 var orderedPhoneBookByFirstName = phoneBook.OrderBy(b => b.Value.firstName).Select(b=>b.Value);
106                                 foreach (Person person in orderedPhoneBookByFirstName)
107                                 {
108                                     DisplayPerson(person);
109                                 }
110                                 break;
111                             }
112                         case 7:
113                             Environment.Exit(0);
114                             break;
115                         default:
116                             Console.WriteLine("Invalid input. please try again.\n");
117                             break;
118                     }
119                 }
120                 catch { Console.WriteLine("Something went wrong please try again."); }
121             } while (true);
122
123
124         }
125
126         public static Person MakePerson(double phoneNumber)
127         {
128             Person person = new Person();
129             person.phoneNumber = phoneNumber;
130             Console.Write("First Name: ");
131             person.firstName = Console.ReadLine();
132             Console.Write("Last Name: ");
133             person.lastName = Console.ReadLine();
134             Console.WriteLine("Address:");
135             Console.Write("Street: ");
136             person.address.street = Console.ReadLine();
137             Console.Write("City: ");
138             person.address.city = Console.ReadLine();
139             Console.Write("Zip Code: ");
140             person.address.zipCode = Console.ReadLine();
141
142
143             return person;
```

```
144         }
145
146         public static void DisplayPerson(Person person)
147         {
148             Console.WriteLine("Phone Number: " + person.phoneNumber);
149             Console.WriteLine("First Name: "+person.firstName);
150             Console.WriteLine("Last Name: "+person.lastName);
151             Console.WriteLine("Address:");
152             Console.WriteLine("Street: "+person.address.street);
153             Console.WriteLine("City: "+person.address.city);
154             Console.WriteLine("Zip Code: "+person.address.zipCode);
155         }
156     }
157
158     class Person
159     {
160         public Address address= new Address();
161         public string firstName, lastName;
162         public double phoneNumber;
163     }
164
165     class Address
166     {
167         public string street;
168         public string city;
169         public string zipCode;
170     }
171 }
172
```