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Program.cs
06 Hands - On Activity 1
using System;
using System.IO;
using System.Collections.Generic;

namespace SIXHandsonActivity
{
    class Program
    {
        // File path (relative to program folder)
        static string filePath = "contacts.txt";

        static void Main()
        {
            while (true)
            {
                Console.Clear();
                Console.WriteLine("Welcome to the Contact Management System");
                Console.WriteLine("Please choose an option:");
                Console.WriteLine("1. Add a new contact");
                Console.WriteLine("2. View all contacts");
                Console.WriteLine("3. Delete a contact");
                Console.WriteLine("4. Exit");
                Console.Write("Enter your choice: ");
                string choice = Console.ReadLine();

                if (choice == "1")
                {
                    AddContact();
                }
                else if (choice == "2")
                {
                    ViewContacts();
                }
                else if (choice == "3")
                {
                    DeleteContact();
                }
                else if (choice == "4")
                {
                    Console.WriteLine("\nThank you for using the Contact Management System. Goodbye!");
                    break;
                }
                else
                {
                    Console.WriteLine("Invalid choice. Please try again.");
                }

                Console.WriteLine("\nPress any key to continue...");
                Console.ReadKey();
            }
        }

        // Add a new contact
        static void AddContact()
        {
            try
            {
                Console.Write("\nEnter the contact name: ");
                string name = Console.ReadLine();

                if (string.IsNullOrWhiteSpace(name))
                {
                    Console.WriteLine("Error: Name cannot be empty. Please try again.");
                    return;
                }

                Console.Write("Enter the contact phone number (10 digits): ");
                string phone = Console.ReadLine();

                if (phone.Length != 10 || !long.TryParse(phone, out _))
                {
                    Console.WriteLine("Error: Phone number must be 10 digits. Please try again.");
                    return;
                }

                // StreamWriter used to write text to a file
                using (StreamWriter writer = new StreamWriter(filePath, true))
                {
                    writer.WriteLine($"{name},{phone}");
                }

                Console.WriteLine("Contact added successfully!");
            }
            catch
            {
                Console.WriteLine("Error: Unable to access contacts file.");
            }
        }
    }
}
```

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81 // View all contacts
82 1 reference
83 static void ViewContacts()
84 {
85     try
86     {
87         // File.Exists checks if file is present
88         if (!File.Exists(filePath))
89         {
90             Console.WriteLine("No contacts found.");
91             return;
92         }
93
94         // StreamReader used to read from a file
95         using (StreamReader reader = new StreamReader(filePath))
96         {
97             string line;
98             int count = 0;
99             List<string> contacts = new List<string>();
100
101             while ((line = reader.ReadLine()) != null)
102             {
103                 contacts.Add(line);
104             }
105
106             if (contacts.Count == 0)
107             {
108                 Console.WriteLine("No contacts found.");
109                 return;
110             }
111
112             Console.WriteLine("\nAll Contacts:");
113             foreach (string contact in contacts)
114             {
115                 count++;
116                 string[] parts = contact.Split(',');
117                 Console.WriteLine($"{count}. {parts[0]}, {parts[1]}");
118             }
119         }
120     }
121     catch
122     {
123         Console.WriteLine("Error: Unable to read contacts file.");
124     }
125 }
126

```

06 Hands - On Activity 1

SIXHandsonActivity.Program

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127 // Delete a contact
128 1 reference
129 static void DeleteContact()
130 {
131     try
132     {
133         if (!File.Exists(filePath))
134         {
135             Console.WriteLine("Error: No contacts found.");
136             return;
137         }
138
139         List<string> contacts = new List<string>(File.ReadAllLines(filePath));
140
141         Console.WriteLine("\nEnter the name of the contact to delete: ");
142         string name = Console.ReadLine();
143
144         bool found = false;
145
146         for (int i = 0; i < contacts.Count; i++)
147         {
148             string[] parts = contacts[i].Split(',');
149             if (parts[0].Equals(name, StringComparison.OrdinalIgnoreCase))
150             {
151                 contacts.RemoveAt(i);
152                 found = true;
153                 break;
154             }
155         }
156
157         if (found)
158         {
159             File.WriteAllLines(filePath, contacts);
160             Console.WriteLine("Contact deleted successfully!");
161         }
162         else
163         {
164             Console.WriteLine("Error: Contact not found.");
165         }
166     }
167     catch
168     {
169         Console.WriteLine("Error: Unable to access contacts file.");
170     }
171 }
172

```

```
Welcome to the Contact Management System
Please choose an option:
1. Add a new contact
2. View all contacts
3. Delete a contact
4. Exit
Enter your choice: |
```

```
Welcome to the Contact Management System
Please choose an option:
1. Add a new contact
2. View all contacts
3. Delete a contact
4. Exit
Enter your choice: 1

Enter the contact name: PICARD
Enter the contact phone number (10 digits): 1234567890
Contact added successfully!

Press any key to continue...
|
```

```
Welcome to the Contact Management System
Please choose an option:
1. Add a new contact
2. View all contacts
3. Delete a contact
4. Exit
Enter your choice: 2

All Contacts:
1. PICARD, 1234567890

Press any key to continue...
|
```

Welcome to the Contact Management System

Please choose an option:

1. Add a new contact
2. View all contacts
3. Delete a contact
4. Exit

Enter your choice: 3

Enter the name of the contact to delete: PICARD

Contact deleted successfully!

Press any key to continue...

|



Microsoft Visual Studio Debug



Welcome to the Contact Management System

Please choose an option:

1. Add a new contact
2. View all contacts
3. Delete a contact
4. Exit

Enter your choice: 4

Thank you for using the Contact Management System. Goodbye!

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