

Vanier College
Computer Science Department

BookSmart
User Manual

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420-331-VA: Application Development (Sect-03)

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Friday, December 8, 2023

Table of Contents

Introduction:	3
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Interactive Features:	3
Graphical User Interface:	4
Basic UI:	5
Application Features:	6
Regular Expressions (validations):	6
Dashboard:	7
Online Button:	7
Output Online Payment paymentMethod.db:	8
Sign Up page:	9
Regular Expressions (validations):	9
Output client.db:	10
Payment Verification page:	11
Regular Expressions (validations):	11
Confirmation database:	12
Hotels Canada and Hotels USA databases:	12
Hotels.db:	13
HotelsUSA.db:	13
Path for the help button:	13
Where to Page:	14
Reservation Criteria:	15

Introduction:

Our hotel booking project, 'BookSmart,' is a user-friendly web-based GUI application designed to optimize and simplify the hotel reservation process. Instead of visiting multiple different websites, 'BookSmart' offers the user a one-stop solution for accessing a wide range of hotel deals. After completing the booking, the user will be prompted to provide essential personal information, including payment details. Afterward, they will receive a confirmation number, which they can present at the hotel during check-in. 'BookSmart' not only provides an easy-to-use platform for booking rooms online and personalizing the user preferences but also emphasizes guest safety and convenience, making it an ideal choice for travelers seeking a hassle-free experience.

Interactive Features:

Nowadays, booking a hotel has become popular across the globe due to its ability to book hotels online easily only with a click of a button. BookSmart app provides an easy use for everyone, especially non-tech savvy. Also, BookSmart is designed for everyday use. Some of the main features of this application include:

- The **Help** page helps non-tech savvy to guide them on how to use the application.
- The **Filter** which helps the user, to search for his preference.
- The **Hotels** page which gives the user different options to use from.
- The **Total Price** which gives the client, the total amount including the tax, service and number of days.
- The **Confirmation** page confirms that the user has booked his hotel.

Graphical User Interface:

Details

Filter by:

☐ 1 stars

☐ 2 stars

☐ 3 stars

☐ 4 stars

☐ 5 stars

Price Range:

☐ \$0 - \$200

☐ \$200 - \$400

☐ \$400 - \$600

Number of guest:


☐ 1 to 2

☐ 3 to 5

Number of Rooms:

☐ 1 to 2

☐ 3 to 5



Azure Escape Resort

★★★★

Welcome to Azure Escape Resort, where the tranquil beauty of azure blue skies meets the luxury of an unforgettable getaway. Nestled amidst breathtaking landscapes, our resort offers a perfect blend of relaxation and adventure. Immerse yourself in the serenity of our azure-themed haven, where each moment is a retreat into pure bliss.


2 - rooms 2 single beds available

Price from

CAD 225

per night

Book



Sapphire Sands Resort

★

Sapphire Sands Resort beckons with the allure of pristine beaches and luxurious indulgence. Immerse yourself in the tranquility of sapphire blue waters and golden sands. Our resort offers a sanctuary where relaxation and sophistication blend seamlessly for a truly rejuvenating escape.


3 - rooms 3 double beds available

Price from

CAD 100

per night

Book



Majestic Mirage Lodge

★★★

Majestic Mirage Lodge is a haven of enchantment, where majesty and mirage converge in perfect harmony. Surrounded by awe-inspiring landscapes, our lodge offers a majestic retreat into luxury. Experience the allure of the extraordinary as you indulge in the grandeur of Majestic Mirage Lodge.

1 - room 1 queen bed available

Price from

CAD 210

per night

Book

Payment Verification

Secure Payment

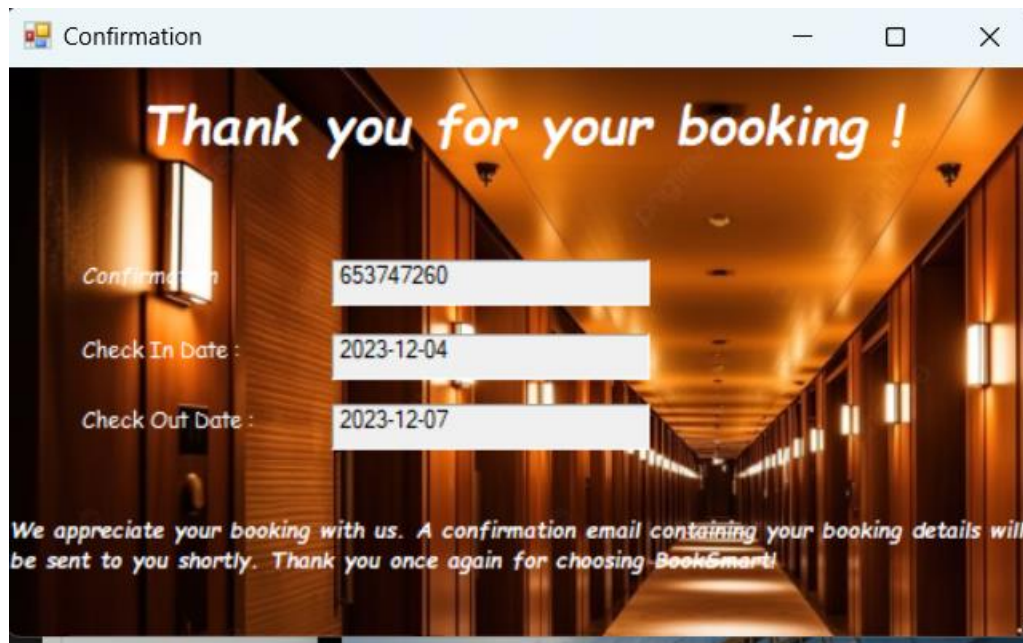
☐ Debit VISA

☒ Credit

Cardholder

Card Number:

Validate

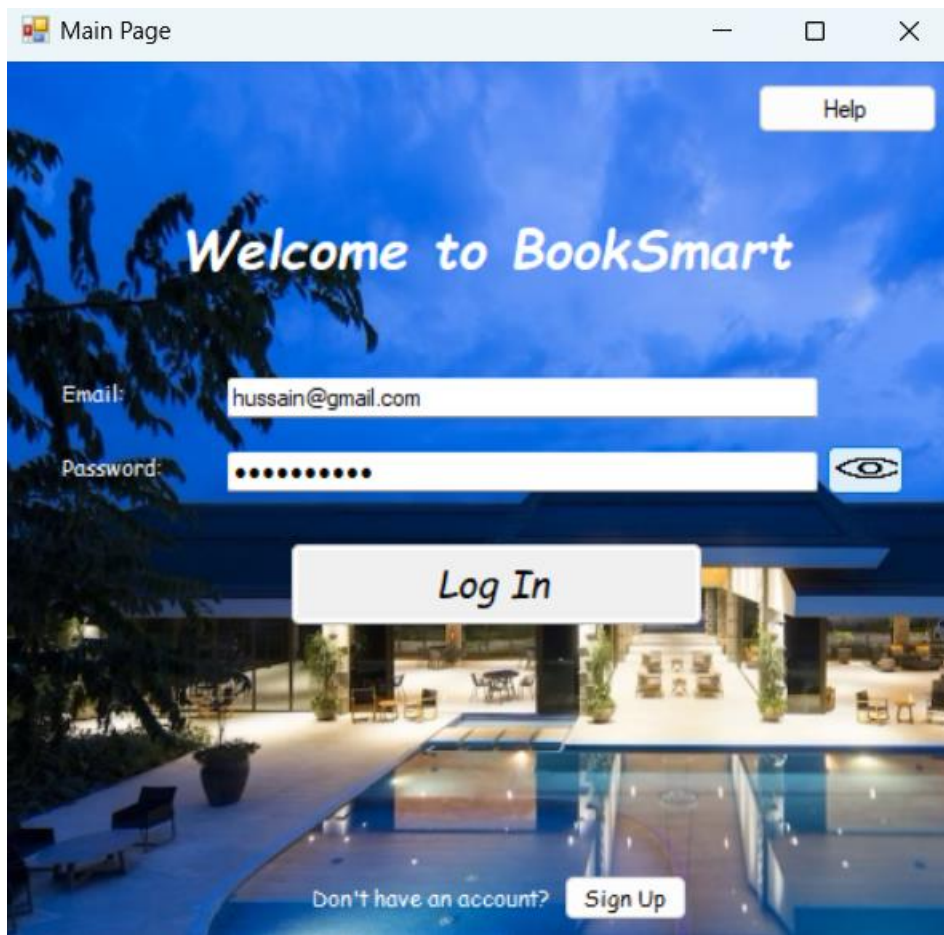


Basic UI:

This application is programmed using the C# language and comes with a user interface and has different designs. The **Hotels** form has a button book that will take the selected hotel and show all the information of the hotel with the final price. Also, the user will have the option to pay online or at the reception. Once the payment is done, a **confirmation number** with the check-in and check-out will be sent to their email.

Additionally, when the user **logs in**, the user's info will recognize him and will enter the application if the inputted information existed in the database. Else, the user will have to create an account using the sign up.

Application Features:



In the **Log In** page, the user must enter an email and password to access his or her account. Once the information has been entered, the Log In button verifies if the entered data is valid.

Regular Expressions (validations):

- The first and last name must start with a **capital letter** and have **minimum of 2 characters long**.
- The password must be **minimum 6 and maximum 16 characters long**:
 - At least **one uppercase letter**
 - At least **2 digits**
- The email must respect the following format: [username@domain.com/ca](#).
- The user must **be 18+**.

Dashboard:

The screenshot shows a web application window titled "Payment Method". Inside, there's a section for "Hotel's Info" featuring a large image of a hotel at night with a fountain. Below the image is the text "Harmony Haven Retreat". To the right of the image is a form with the following fields:

Ratings:	3
Price:	310
Number of rooms:	2
Number of guests:	2
Number of beds:	2
Final price :	\$1043

Below the form, the text "How would like to make your payment ?" is displayed. Underneath this text are two buttons: "Online" and "Reception".

The **paymentMethod** form of this application displays the **ratings**, **price** per night, number of rooms, **maximum** number of guests, number of beds and finally the final price that includes **the number of days** that the client is staying, the **service**, and the **taxes** (depending on the country).

Online Button:

The **online** button simply directs the client to pick their payment method (**debit or credit**) and input the card **holder** and card **number**.

Payment Verification

Secure Payment

☐ Debit VISA
 ☒ Credit

Cardholder:

Card Number:

Validate

Output Online Payment paymentMethod.db:

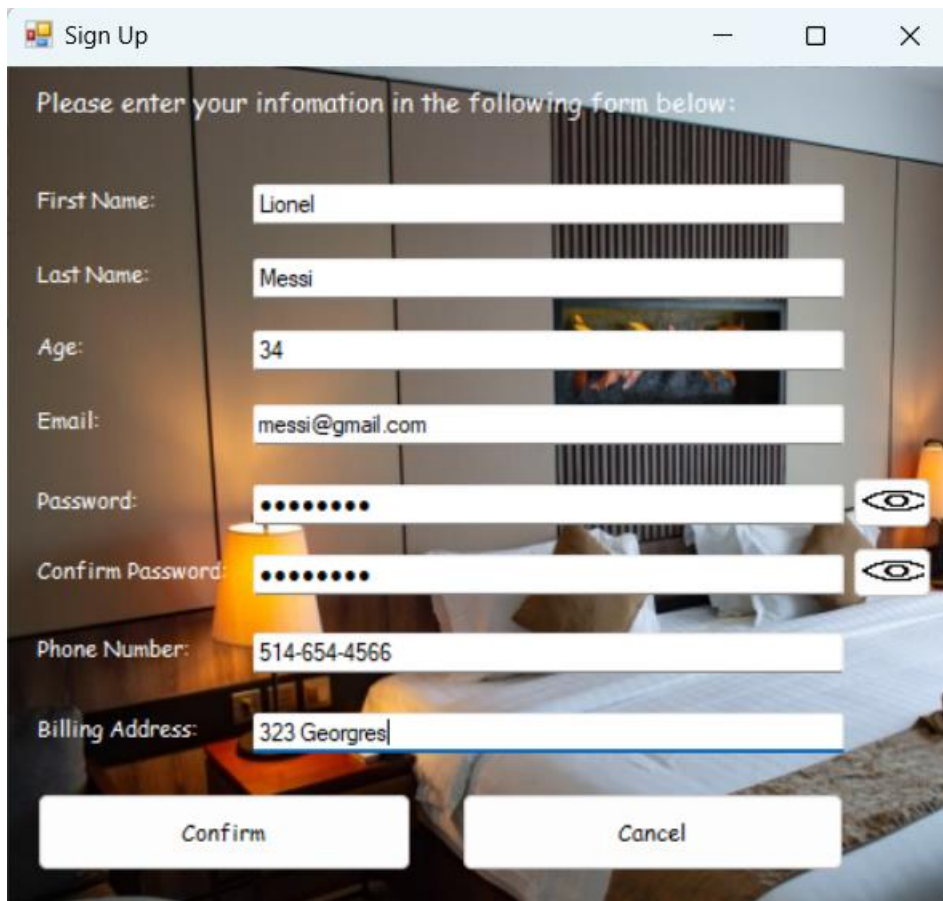
The **paymentMethod.db** saves the client's payment in a database with the information inputted in the online form.

	ID	CardholderName	CardNumber	PaymentType
	Filter	Filter	Filter	Filter
1	1	Hussain-Amin	1234567890123456	Credit
2	2	Sheldon-Green	0987654321098767	Credit
3	3	Emmanuel-Aibgokhan	3754367890654321	Credit

Payment method saved successfully.

OK

Sign Up page:



Sign Up

Please enter your information in the following form below:

First Name: Lionel

Last Name: Messi

Age: 34

Email: messi@gmail.com

Password: ••••••••

Confirm Password: ••••••••

Phone Number: 514-654-4566

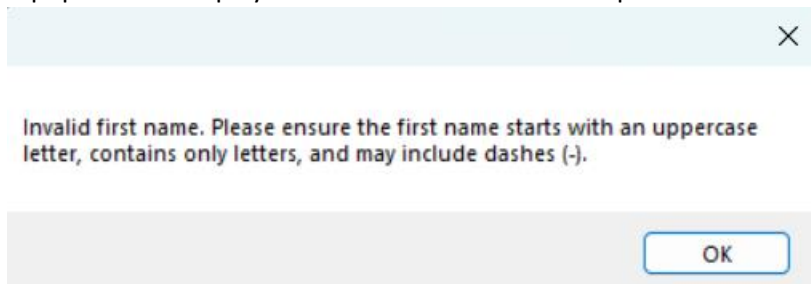
Billing Address: 323 Georgres

Confirm Cancel

Users can **Sign Up** in our application if they don't have an account. To Sign Up the user **must** enter his first name, last name, age, email, password, phone number and billing address.\

Regular Expressions (validations):

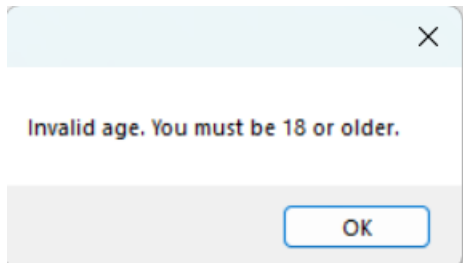
- A pop box will display if the first or last name are inputted incorrectly:



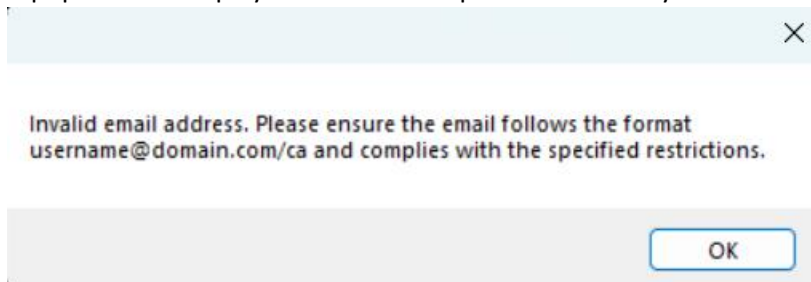
Invalid first name. Please ensure the first name starts with an uppercase letter, contains only letters, and may include dashes (-).

OK

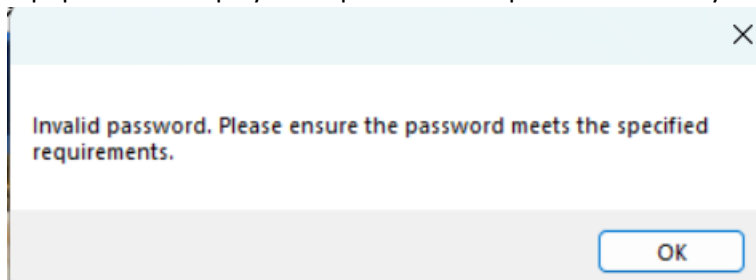
- A pop box will display if the user is not 18+.



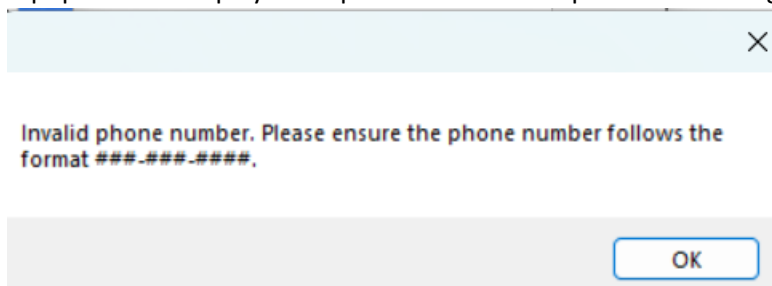
- A pop box will display if the email is inputted incorrectly:



- A pop box will display if the password is inputted incorrectly:



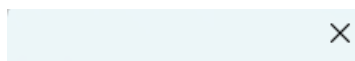
- A pop box will display if the phone number is inputted the wrong format:



Output client.db:

Once the **users** are signed up their information are stored in a database called client that will store all the inputted values form the **client**.

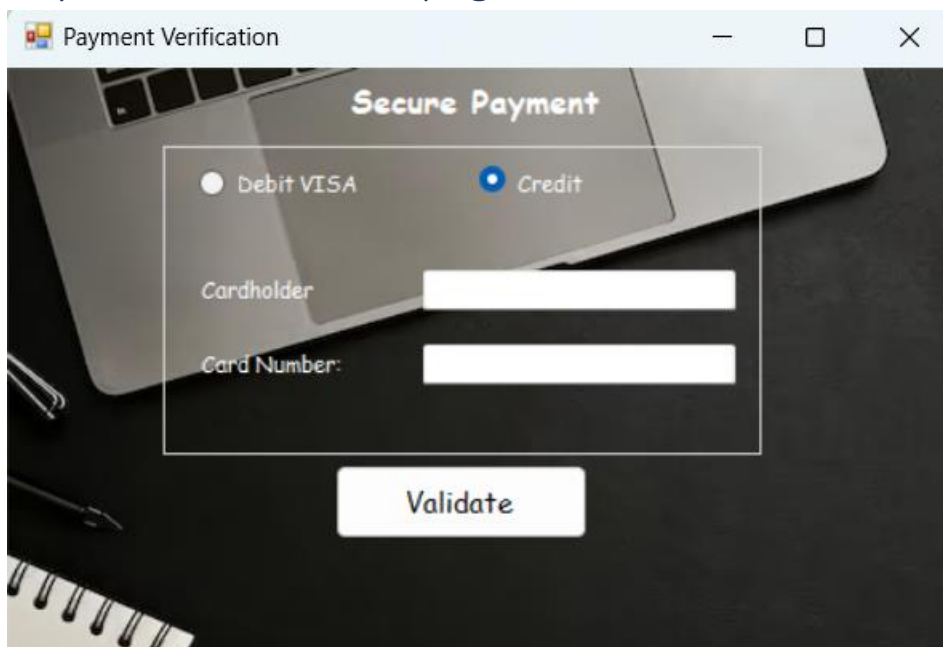
	Email	FirstName	LastName	Age	Phone	Password	Address
	Filter	Filter	Filter	Filter	Filter	Filter	Filter
1	sheldon@gmail.com	Sheldon	Green	21	514-543-3445	Sheldon123	122 Vanier
2	hussain@gmail.com	Hussain	Amin	20	514-455-4565	Hussain123	1543 Georges
3	emmanuel@gmail.com	Emmanuel	Aigbokhan	23	514-344-4345	Emmanuel123	12 Charles
4	messi@gmail.com	Lionel	Messi	34	514-444-3332	Messi123	323 Georgres



User registered successfully



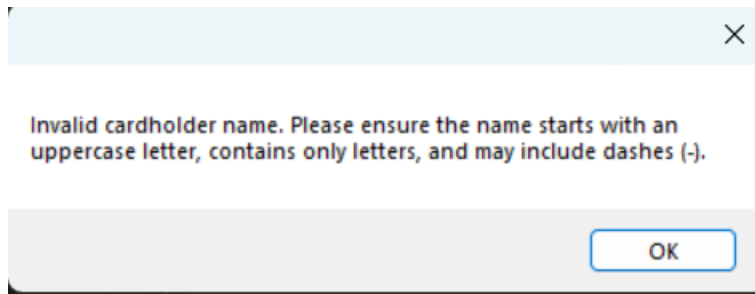
Payment Verification page:



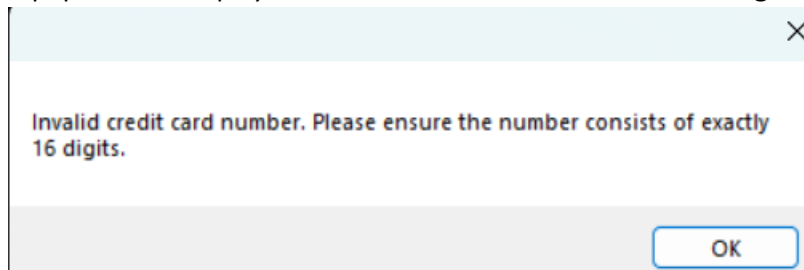
This page simply must be filled by the user to **confirm** the booking and make sure that he receives his **confirmation** number for his reservation.

Regular Expressions (validations):

- A pop box will display if the card name doesn't have you **first** and **last name** divide by a **dash** (-).



- A pop box will display if the card number doesn't **contain 16 digits**:



Confirmation database:

The confirmation database store all the clients who booked and made the payment by giving them a **confirmation** number with their **check-in** and **check-out dates**.

8	8	283676150	2023-12-04	2023-12-07
9	9	653747260	2023-12-04	2023-12-07
10	10	418793380	2023-12-04	2023-12-07

Hotels Canada and Hotels USA databases:

Our website stores all the information of the hotels located in Canada or USA in two different databases. One called **Hotels.db** and the other **HotelsUSA.db**.

Hotels.db:

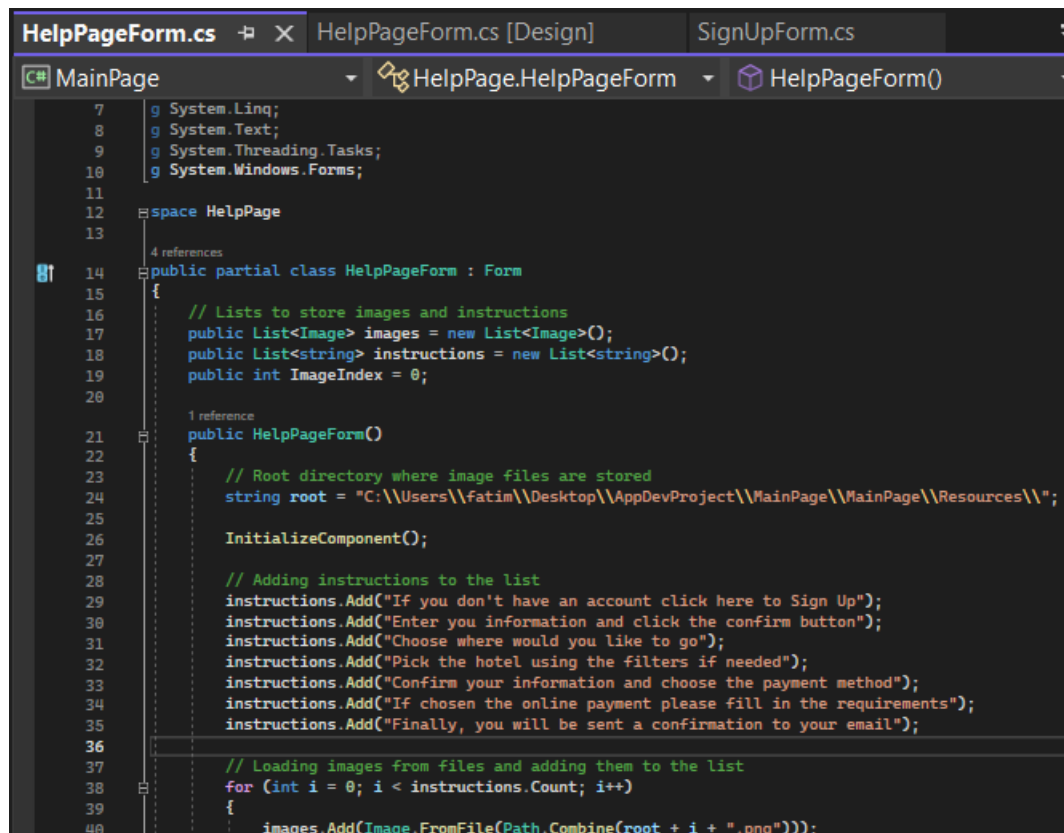
	Id	HotelName	Rating	Price	NumberOfGuest	NumberOfRooms	NumberOfBeds
	Filter	Filter	Filter	Filter	Filter	Filter	Filter
1	1	Azure Escape Resort	4.0	225.0	2	2	2
2	2	Sapphire Sands Resort	1.0	100.0	6	3	3
3	3	Majestic Mirage Lodge	3.0	210.0	2	1	1
4	4	Tranquil Oasis Lodge	5.0	485.0	2	2	2
5	5	Pinnacle Paradise Hotel	1.0	87.0	4	1	2
6	6	Velvet Vesta Hotel	3.0	330.0	2	2	2
7	7	Celestial Suites	4.0	350.0	1	1	1
8	8	Radiant Rendezvous Hotel	4.0	285.0	2	1	1
9	9	Opulent Oasis Hotel	5.0	510.0	6	3	3
10	10	Regal Respite Inn	2.0	150.0	2	2	2

HotelsUSA.db:

	Id	HotelName	Rating	Price	NumberOfGuest	NumberOfRooms	NumberOfBeds
	Filter	Filter	Filter	Filter	Filter	Filter	Filter
1	1	Harmony Haven Retreat	3.0	310.0	2	2	2
2	2	Alpine Crest Resort	2.0	120.0	6	3	3
3	3	Coastal Breeze Hotel	1.0	67.0	1	1	1
4	4	Enchanted Garden Retreat	3.0	290.0	6	2	3
5	5	Starlight Shores Lodge	5.0	550.0	2	2	2
6	6	Wilderness Oasis Lodge	3.0	250.0	2	2	2
7	7	Mystic Grove Lodge	4.0	180.0	2	1	1
8	8	Crismon Peak Chalet	4.0	285.0	2	1	1
9	9	Vista Verde Retreat	4.0	510.0	6	3	3
10	10	Luminous Skies Hotel	2.0	150.0	2	2	2

Path for the help button:

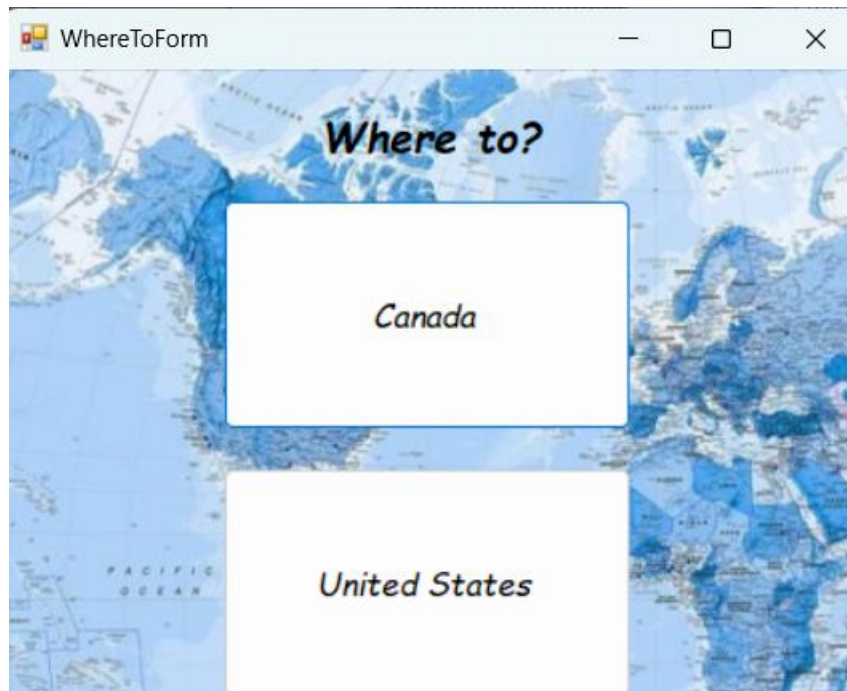
When downloading the project **please always be sure to change the path** for the help button in the main page form.



```
7  g System.Linq;
8  g System.Text;
9  g System.Threading.Tasks;
10 g System.Windows.Forms;
11
12 namespace HelpPage
13
14     4 references
15     public partial class HelpPageForm : Form
16     {
17         // Lists to store images and instructions
18         public List<Image> images = new List<Image>();
19         public List<string> instructions = new List<string>();
20         public int ImageIndex = 0;
21
22         1 reference
23         public HelpPageForm()
24         {
25             // Root directory where image files are stored
26             string root = "C:\\Users\\fatim\\Desktop\\AppDevProject\\MainPage\\MainPage\\Resources\\";
27
28             InitializeComponent();
29
30             // Adding instructions to the list
31             instructions.Add("If you don't have an account click here to Sign Up");
32             instructions.Add("Enter you information and click the confirm button");
33             instructions.Add("Choose where would you like to go");
34             instructions.Add("Pick the hotel using the filters if needed");
35             instructions.Add("Confirm your information and choose the payment method");
36             instructions.Add("If chosen the online payment please fill in the requirements");
37             instructions.Add("Finally, you will be sent a confirmation to your email");
38
39             // Loading images from files and adding them to the list
40             for (int i = 0; i < instructions.Count; i++)
41             {
42                 images.Add(Image.FromFile(Path.Combine(root + i + ".png")));
43             }
44         }
45     }
```

Where to Page:

Once the user is logged in or signed up, he must choose on which location he would like to book
Canada or USA:



Reservation Criteria:

With our system when the user books a hotel (USA or CA) he **must stay 3 days**. The check-In and check-Out are **one month after** the day the user reserves the hotel.