ICE CREAM CAFE

1. Create a Simple Python Application for a fictional ice cream parlor cafe that uses

SQLite to manage,

● Seasonal flavor offerings

● Ingredient inventory

● Customer flavor suggestions and allergy concerns

As a user of the application should be able to,

- Maintain a cart of my favorite products,

- Should be able to search & filter the offerings,

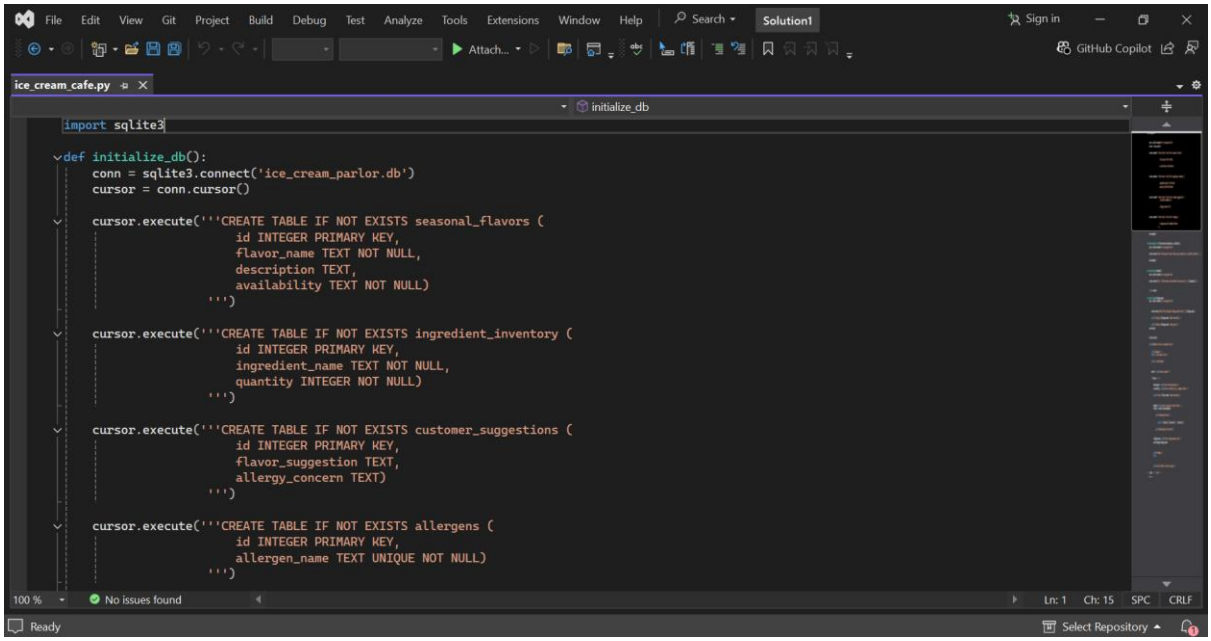
- Should be able to add allergens if they don’t already exist

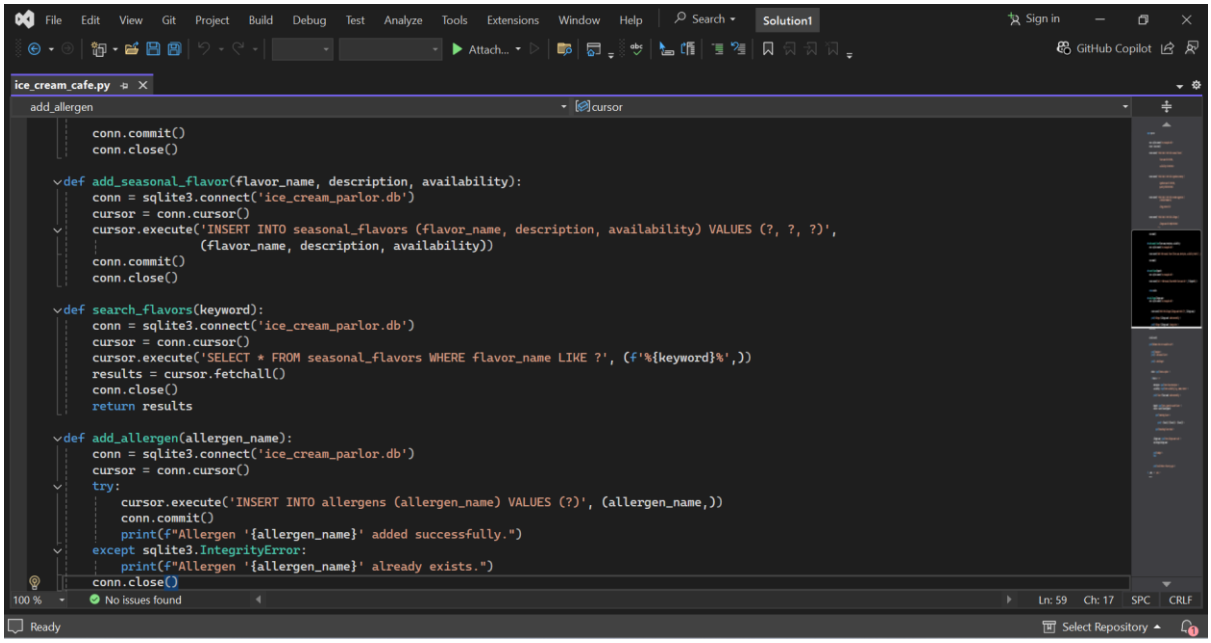
CODE:

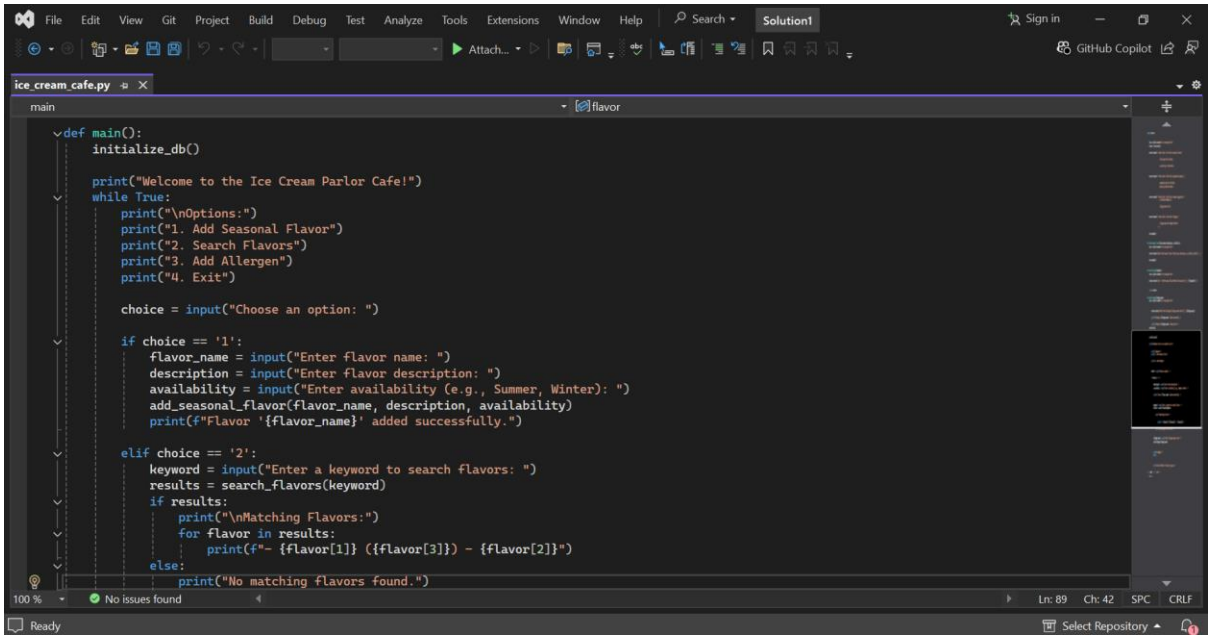
```
import sqlite3

def initialize_db():
    conn = sqlite3.connect('ice_cream_parlor.db')
    cursor = conn.cursor()

    cursor.execute('''CREATE TABLE IF NOT EXISTS seasonal_flavors (
                        id INTEGER PRIMARY KEY,
                        flavor_name TEXT NOT NULL,
                        description TEXT,
                        availability TEXT NOT NULL)
                    ''')

    cursor.execute('''CREATE TABLE IF NOT EXISTS ingredient_inventory (
                        id INTEGER PRIMARY KEY,
                        ingredient_name TEXT NOT NULL,
                        quantity INTEGER NOT NULL)
                    ''')

    cursor.execute('''CREATE TABLE IF NOT EXISTS customer_suggestions (
                        id INTEGER PRIMARY KEY,
                        flavor_suggestion TEXT,
                        allergy_concern TEXT)
                    ''')

    cursor.execute('''CREATE TABLE IF NOT EXISTS allergens (
                        id INTEGER PRIMARY KEY,
                        allergen_name TEXT UNIQUE NOT NULL)
                    ''')

    conn.commit()
    conn.close()
```

```
def add_seasonal_flavor(flavor_name, description, availability):
    conn = sqlite3.connect('ice_cream_parlor.db')
    cursor = conn.cursor()
    cursor.execute('INSERT INTO seasonal_flavors (flavor_name, description,
availability) VALUES (?, ?, ?)',
                   (flavor_name, description, availability))
    conn.commit()
    conn.close()

def search_flavors(keyword):
    conn = sqlite3.connect('ice_cream_parlor.db')
    cursor = conn.cursor()
    cursor.execute('SELECT * FROM seasonal_flavors WHERE flavor_name LIKE ?',
(f'%{keyword}%',))
    results = cursor.fetchall()
    conn.close()
    return results

def add_allergen(allergen_name):
    conn = sqlite3.connect('ice_cream_parlor.db')
    cursor = conn.cursor()
    try:
        cursor.execute('INSERT INTO allergens (allergen_name) VALUES (?)',
(allergen_name,))
        conn.commit()
        print(f"Allergen '{allergen_name}' added successfully.")
    except sqlite3.IntegrityError:
        print(f"Allergen '{allergen_name}' already exists.")
    conn.close()

def main():
    initialize_db()

    print("Welcome to the Ice Cream Parlor Cafe!")
    while True:
        print("\nOptions:")
        print("1. Add Seasonal Flavor")
        print("2. Search Flavors")
        print("3. Add Allergen")
        print("4. Exit")

        choice = input("Choose an option: ")

        if choice == '1':
            flavor_name = input("Enter flavor name: ")
            description = input("Enter flavor description: ")
            availability = input("Enter availability (e.g., Summer, Winter): ")
            add_seasonal_flavor(flavor_name, description, availability)
            print(f"Flavor '{flavor_name}' added successfully.")

        elif choice == '2':
            keyword = input("Enter a keyword to search flavors: ")
            results = search_flavors(keyword)
            if results:
                print("\nMatching Flavors:")
                for flavor in results:
                    print(f"- {flavor[1]} ({flavor[3]}) - {flavor[2]}")
            else:
                print("No matching flavors found.")

        elif choice == '3':
            allergen_name = input("Enter allergen name to add: ")
            add_allergen(allergen_name)
```

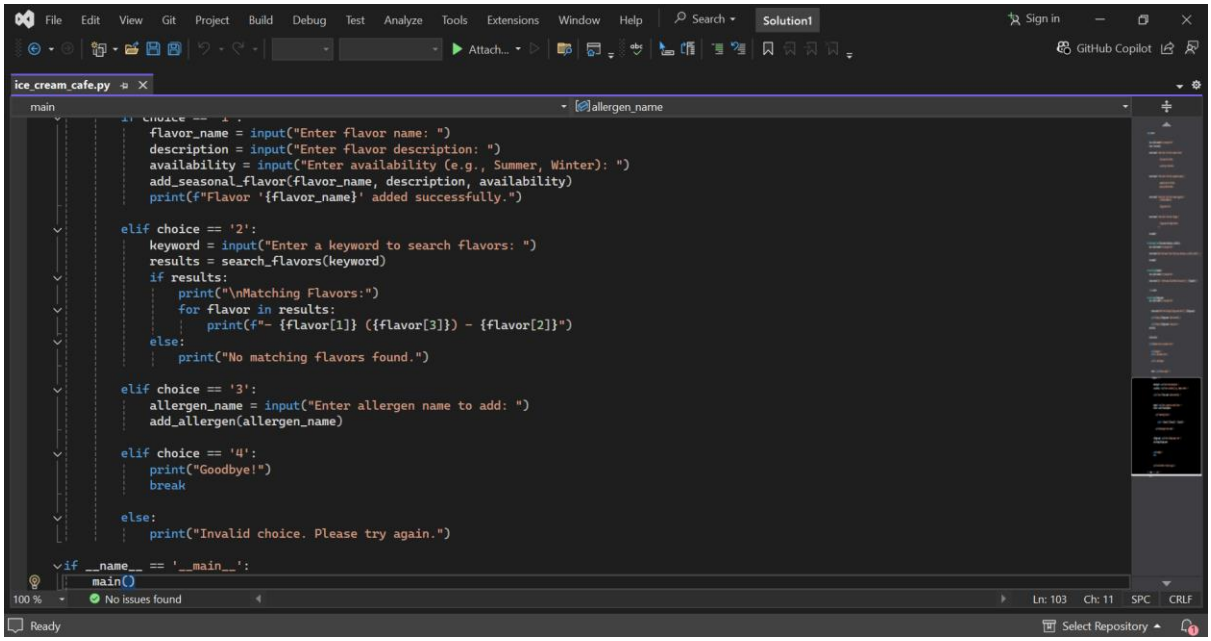
```
        elif choice == '4':
            print("Goodbye!")
            break

        else:
            print("Invalid choice. Please try again.")

if __name__ == '__main__':
    main()
```







```python
def main():
    initialize_db()

    print("Welcome to the Ice Cream Parlor Cafe!")
    while True:
        print("\nOptions:")
        print("1. Add Seasonal Flavor")
        print("2. Search Flavors")
        print("3. Add Allergen")
        print("4. Exit")

        choice = input("Choose an option: ")

        if choice == '1':
            flavor_name = input("Enter flavor name: ")
            description = input("Enter flavor description: ")
            availability = input("Enter availability (e.g., Summer, Winter): ")
            add_seasonal_flavor(flavor_name, description, availability)
            print(f"Flavor '{flavor_name}' added successfully.")

        elif choice == '2':
            keyword = input("Enter a keyword to search flavors: ")
            results = search_flavors(keyword)
            if results:
                print("\nMatching Flavors:")
                for flavor in results:
                    print(f"- {flavor[1]} ({flavor[3]}) - {flavor[2]}")
            else:
                print("No matching flavors found.")
```



```python
            flavor_name = input("Enter flavor name: ")
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            availability = input("Enter availability (e.g., Summer, Winter): ")
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            print(f"Flavor '{flavor_name}' added successfully.")

        elif choice == '2':
            keyword = input("Enter a keyword to search flavors: ")
            results = search_flavors(keyword)
            if results:
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                for flavor in results:
                    print(f"- {flavor[1]} ({flavor[3]}) - {flavor[2]}")
            else:
                print("No matching flavors found.")

        elif choice == '3':
            allergen_name = input("Enter allergen name to add: ")
            add_allergen(allergen_name)

        elif choice == '4':
            print("Goodbye!")
            break

        else:
            print("Invalid choice. Please try again.")

if __name__ == '__main__':
    main()
```

OUTPUT:

Welcome to the Ice Cream Parlor Cafe!

Options:
1. Add Seasonal Flavor
2. Search Flavors
3. Add Allergen
4. Exit
Choose an option: 1
Enter flavor name: flavor[1]

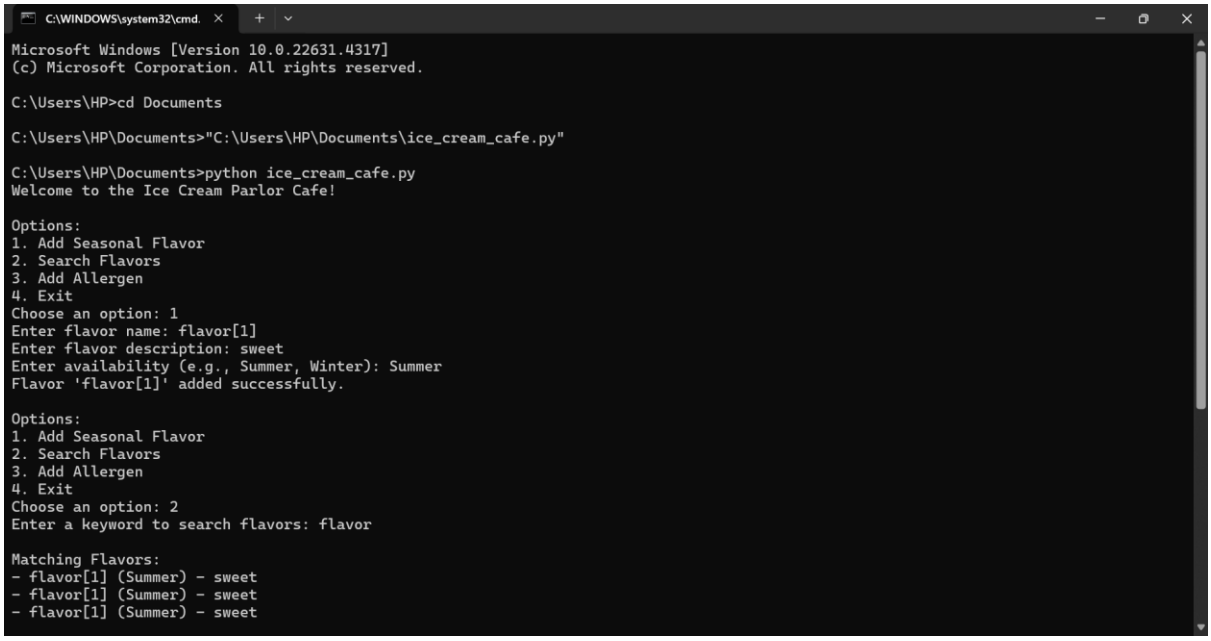
Enter flavor description: sweet
Enter availability (e.g., Summer, Winter): Summer
Flavor 'flavor[1]' added successfully.

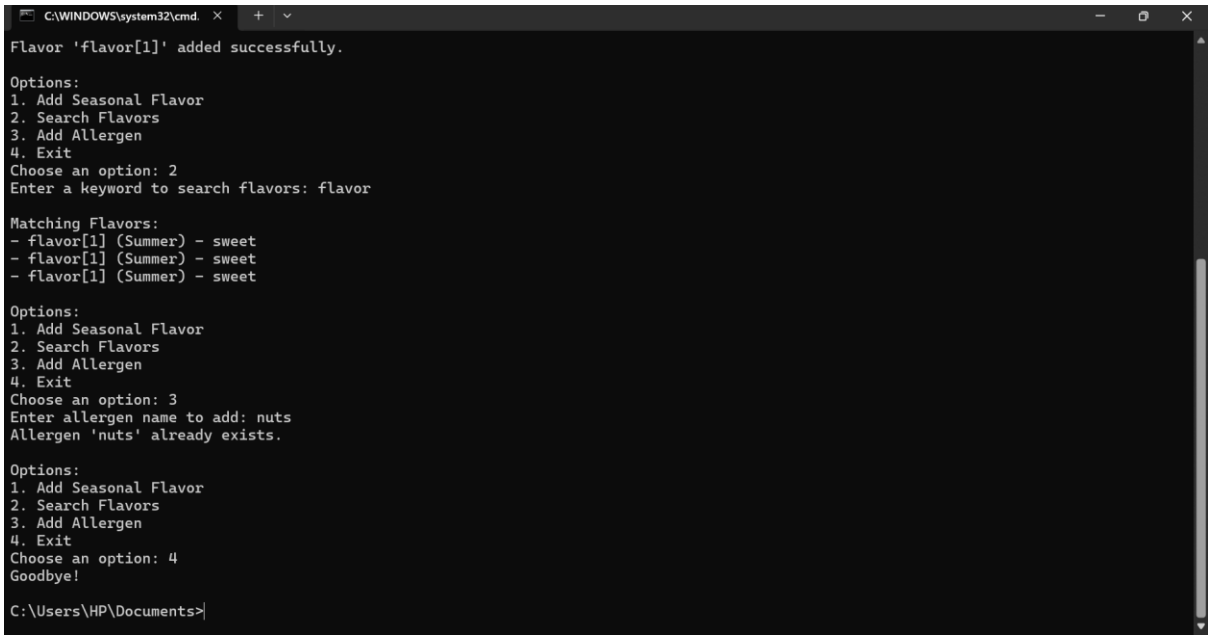
Options:
1. Add Seasonal Flavor
2. Search Flavors
3. Add Allergen
4. Exit
Choose an option: 2
Enter a keyword to search flavors: flavor

Matching Flavors:
- flavor[1] (Summer) - sweet

Options:
1. Add Seasonal Flavor
2. Search Flavors
3. Add Allergen
4. Exit
Choose an option: 3
Enter allergen name to add: nuts
Allergen 'nuts' added successfully.

Options:
1. Add Seasonal Flavor
2. Search Flavors
3. Add Allergen
4. Exit
Choose an option: 4
Goodbye!


C:\WINDOWS\system32\cmd.
Microsoft Windows [Version 10.0.22631.4317]
(c) Microsoft Corporation. All rights reserved.
C:\Users\HP>cd Documents
C:\Users\HP\Documents>"C:\Users\HP\Documents\ice_cream_cafe.py"
C:\Users\HP\Documents>python ice_cream_cafe.py
Welcome to the Ice Cream Parlor Cafe!
Options:
1. Add Seasonal Flavor
2. Search Flavors
3. Add Allergen
4. Exit
Choose an option: 1
Enter flavor name: flavor[1]
Enter flavor description: sweet
Enter availability (e.g., Summer, Winter): Summer
Flavor 'flavor[1]' added successfully.
Options:
1. Add Seasonal Flavor
2. Search Flavors
3. Add Allergen
4. Exit
Choose an option: 2
Enter a keyword to search flavors: flavor
Matching Flavors:
- flavor[1] (Summer) - sweet
- flavor[1] (Summer) - sweet
- flavor[1] (Summer) - sweet


C:\WINDOWS\system32\cmd.
Flavor 'flavor[1]' added successfully.
Options:
1. Add Seasonal Flavor
2. Search Flavors
3. Add Allergen
4. Exit
Choose an option: 2
Enter a keyword to search flavors: flavor
Matching Flavors:
- flavor[1] (Summer) - sweet
- flavor[1] (Summer) - sweet
- flavor[1] (Summer) - sweet
Options:
1. Add Seasonal Flavor
2. Search Flavors
3. Add Allergen
4. Exit
Choose an option: 3
Enter allergen name to add: nuts
Allergen 'nuts' already exists.
Options:
1. Add Seasonal Flavor
2. Search Flavors
3. Add Allergen
4. Exit
Choose an option: 4
Goodbye!
C:\Users\HP\Documents>

COLAB LINK:

https://colab.research.google.com/drive/1T3M1_2hpK4d9Kp5NOzyCE7_-3ZKV8sR4?usp=sharing

GITHUB LINK:

https://github.com/suva823/Ice-Cream-Cafe