Connecting to Cockroach Labs MySQL for Backend Database

Introduction

We will be using Cockroach Labs' MySQL for hosting the backend database. This guide will walk you through the process of connecting to the backend and creating an account. Refer to the official documentation for detailed information: Cockroach Labs Connect to the Database.

Steps

1. **Create an Account:**
    - Follow the instructions in the official Cockroach Labs documentation to create an account.
2. **Accessing the Server Terminal:**
    - Once your account is created, you can access the server terminal to manage your database. Most of the webpage is self-explanatory.
3. **Sample Code:**
    - You can click on the Connect button and read the instructions.
    - Use the following code as a reference for connecting to the database, retrieving data, and inserting new data. This is a test code for a table named `example_table` on the server.
    - This is a sample code just to know the use case of each module , change it accordingly to the project

```
CREATE TABLE example_table (
    id INT PRIMARY KEY,
    name VARCHAR(255),
    age INT,
    email VARCHAR(255)
);
```

```
import os
import psycopg2
import random

def connect_to_database():
    # Connect to the PostgreSQL database using the DATABASE_URL from
environment variables
    return psycopg2.connect(os.environ["DATABASE_URL"])

def retrieve_data_by_name(name):
    conn = connect_to_database()
```

```
    try:
        with conn.cursor() as cur:
            # Execute a SELECT query based on the provided name
            cur.execute("SELECT * FROM example_table WHERE name = %s",
(name,))
            data = cur.fetchall()

            # Print the data
            if data:
                print(f"\nData for '{name}':")
                for row in data:
                    print(row)
            else:
                print(f"No data found for '{name}'.")

    finally:
        # Close the database connection
        conn.close()

def insert_new_data(name, age, email,id):
    conn = connect_to_database()
    try:
        with conn.cursor() as cur:
            # Execute an INSERT query to add new data, including the
id column
            cur.execute("INSERT INTO example_table (id, name, age,
email) VALUES (%s, %s, %s, %s)", (id ,name, age, email))
            conn.commit()
    finally:
        # Close the database connection
        conn.close()


def main():
    while True:
        print("\nOptions:")
        print("1. Retrieve data by name")
        print("2. Insert new data")
        print("3. Exit")

        choice = input("Enter your choice (1, 2, or 3): ")

        if choice == '1':
            name = input("Enter the name to retrieve data: ")
            retrieve_data_by_name(name)
        elif choice == '2':
            name = input("Enter the name: ")
            age = input("Enter the age: ")
            email = input("Enter the email: ")
            id = input("Enter the id: ")
            insert_new_data(name, age, email,id)
        elif choice == '3':
            print("Exiting the app. Goodbye!")
```

```
            break
        else:
            print("Invalid choice. Please enter 1, 2, or 3.")

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

- Modify the code according to your web application requirements. Ensure that you replace `os.environ["DATABASE_URL"]` with the actual environment variable holding your Cockroach Labs MySQL connection URL.

Running the App

1. Execute the code on your local machine.
2. Follow the prompts to retrieve data by name, insert new data, or exit the app.

Feel free to modify the provided code according to your specific needs and integrate it into your web application.
