# SQLite Database source code

try:

    conn = sqlite3.connect('test.db') #Title of database

    cursor = conn.cursor() #Establish connection to database

    #Create users table with constraints

    cursor.execute('''

    CREATE TABLE IF NOT EXISTS users (

        userID INTEGER PRIMARY KEY AUTOINCREMENT,

        username TEXT NOT NULL,

        password TEXT NOT NULL,

        email TEXT NOT NULL,

        dob TEXT NOT NULL

    )

    ''')

    #Create events table with constraints

    cursor.execute('''

    CREATE TABLE IF NOT EXISTS events (

        eventID INTEGER PRIMARY KEY AUTOINCREMENT,

        userID INTEGER,

        eventName TEXT NOT NULL,

        eventDay INTEGER NOT NULL,

        eventMonth INTEGER NOT NULL,

        eventVenue TEXT NOT NULL,

        eventAddress TEXT NOT NULL,

        eventGenre TEXT NOT NULL,

        eventTicketPrice FLOAT NOT NULL,

        eventDescription TEXT NOT NULL,

        eventImage BLOB,

        qrCode BLOB,

        eventTicketQuantity INTEGER NOT NULL,

        eventPromotionDiscount INTEGER,

        FOREIGN KEY(userID) REFERENCES users(userID)

     )

    ''')

    # Unique constraints used below to prevent duplicate entries for the same user and event.

    cursor.execute('''

    CREATE TABLE IF NOT EXISTS baskets (

        userID INTEGER,

        eventID INTEGER,

        quantity INTEGER,

        totalPrice FLOAT,

        CONSTRAINT unq\_user\_event UNIQUE(userID, eventID),

        FOREIGN KEY(userID) REFERENCES users(userID),

        FOREIGN KEY(eventID) REFERENCES events(eventID)

    )

    ''')

    # Currently this table isn't used, but could be used to see which users clicked on which events (can be added from ShowEventDetails)

    cursor.execute('''

    CREATE TABLE IF NOT EXISTS interactions (

        userID INTEGER,

        eventID INTEGER,

        CONSTRAINT unq\_user\_event UNIQUE(userID, eventID),

        FOREIGN KEY(userID) REFERENCES users(userID),

        FOREIGN KEY(eventID) REFERENCES events(eventID)

    )

    ''')

    cursor.execute('''

    CREATE TABLE IF NOT EXISTS favourites (

        userID INTEGER,

        eventID INTEGER,

        CONSTRAINT unq\_user\_event UNIQUE(userID, eventID),

        FOREIGN KEY(userID) REFERENCES users(userID),

        FOREIGN KEY(eventID) REFERENCES events(eventID)

    )

    ''')

# Exception catcher for any errors that may occur during the execution of SQL commands.

except sqlite3.Error as e:

    print(f"Database error: {e}")