```
import sqlite3
#establish connection
conn = sqlite3.connect('demo.db')

# used to execute SQL commands
cursor = conn.cursor()


# create 'Users' table
cursor.execute('''CREATE TABLE IF NOT EXISTS Users (
                    user_id INTEGER PRIMARY KEY,
                    username TEXT UNIQUE,
                    email TEXT UNIQUE,
                    password TEXT,
                    created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP
                    )''')

#create 'UserActivities' table
cursor.execute('''CREATE TABLE IF NOT EXISTS UserActivities (
                    activity_id INTEGER PRIMARY KEY,
                    user_id INTEGER,
                    activity TEXT,
                    activity_time TIMESTAMP DEFAULT CURRENT_TIMESTAMP,
                    FOREIGN KEY (user_id) REFERENCES Users(user_id)
                    )''')

# create 'UserConnections' table
cursor.execute('''CREATE TABLE IF NOT EXISTS UserConnections(
                   connection_id INTEGER PRIMARY KEY,
                   user1_id INTEGER,
                   user2_id INTEGER,
                   conection_time TIMESTAMP DEFAULT CURRENT_TIMESTAMP,
                   FOREIGN KEY (user1_id) REFERENCES Users(user_id)
                   FOREIGN KEY (user2_id) REFERENCES Users(user_id)
                   )''')
```

```
<sqlite3.Cursor at 0x7b1d5b9f2b40>
```

```
# create indexes for data retrieval
cursor.execute("CREATE INDEX IF NOT EXISTS idx_user_id ON UserActivities(user_id)")
cursor.execute("CREATE INDEX IF NOT EXISTS idx_user1_user2 ON UserConnections(user1_id, user2_id)")
```

```
<sqlite3.Cursor at 0x7b1d5b9f2b40>
```

```
# commit (save) changes
conn.commit()


# add (insert)


# commit (save) changes
conn.commit()


# query and print data from the Users table
print("Users:")
cursor.execute("SELECT * FROM Users")
for row in cursor.fetchall():
  print(row)
```

```
Users:
```

```
#query and print data from the UserActivities table
print("\nUser Activities:")
cursor.execute("SELECT * FROM UserActivities")
for row in cursor.fetchall():
  print(row)
```

```

User Activities:
```

```
# query and print data from the UserConnections table
print("\nUser Connections:")
for row in cursor.fetchall():
  print(row)
```

```
    User Connections:
```

```
# close the database connection
conn.close()
```