To run the backend and frontend together, follow these steps:

**Step 1: Start the Backend Server**

1. **Navigate to the Backend Folder:**

cd E:/Graduation project/e-receipt/e\_receipt\_app/backend

1. **Install Dependencies:** Ensure all necessary Node.js packages are installed:

npm install

1. **Start the Server:** Run the backend server:

npm start

If successful, the terminal should show something like:

Server running on http://localhost:3000

**Step 2: Run the Flutter Frontend**

**Open new terminal**

1. **Navigate to the Flutter Project Folder:**

cd E:/Graduation project/e-receipt/e\_receipt\_app

1. **Run flutter pub get:** Ensure all Flutter dependencies are installed:

flutter pub get

1. **Run the Flutter App:** Start the app on an emulator or connected device:

flutter run

Alternatively, you can use your IDE (e.g., VS Code or Android Studio) to run the app.

**Step 3: Testing Backend-Frontend Integration**

1. **Ensure Backend is Running:** Confirm the backend server is running on http://localhost:3000.
2. **Simulate a Registration Request:**
   * Use the frontend's signup screen to test a user registration.
   * Confirm the registration is saved in your SQLite database.
3. **Check Database Records:** Use tools like SQLite browser or write a simple query to verify the data in users.db.

**Step 4: Optional - Running Backend and Frontend Simultaneously**

If you want both running in one terminal session:

1. Open two terminal windows or tabs.
2. Start the backend in one tab:

cd E:/Graduation project/e-receipt/e\_receipt\_app/backend

npm start

1. Start the frontend in the other:

cd E:/Graduation project/e-receipt/e\_receipt\_app

flutter run

**Common Issues**

1. **Port Conflicts:** Ensure no other applications are running on port 3000 for the backend.
   * You can change the backend port in server.js if needed.
2. **CORS Issues:** If your backend blocks requests from the frontend due to CORS, add the following to your server.js:

javascript

const cors = require('cors');

app.use(cors());

1. **Device Connectivity:** If testing on a physical device, replace localhost with your computer's IP address in both backend and frontend configurations.

<http://localhost:3000/api/register>

<http://localhost:3000/api/user?email=testuser@example.com>

<http://localhost:3000/api/users>

flutter emulators --launch Pixel\_3a\_XL\_API\_26

**run on android :**

**run the backend 🡪 npm start**

search on all files expet for server.js to change the local host to the ip (ipconfig)

open the device from android studio

choose the device from the bottom line in vs code

vscode -> Run ->run without debugging

**to run in web :**

**run the backend 🡪 npm start**

flutter clean

flutter run -d edge