### **Updated API Endpoints**

#### **1. Receive Data from ESP32**

* **Endpoint:** /api/send\_data
* **Method:** POST
* **Request Body:**

json

Copy code

{  
 "device\_id": "string",  
 "x\_val": "float",  
 "y\_val": "float",  
 "z\_val": "float"  
}

* **Response:**
  + **Success:** {"message": "Data stored successfully"}
  + **Error:** {"error": "error message"}

#### **2. Get Data by Device ID**

* **Endpoint:** /api/get\_data/<device\_id>
* **Method:** GET
* **Response:**
  + **Success:** Returns a list of sensor data for the specified device.
  + **Error:** {"error": "error message"}

#### **3. User Signup**

* **Endpoint:** /api/signup
* **Method:** POST
* **Request Body:**

json

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{  
 "username": "string",  
 "email": "string",  
 "password": "string"  
}

* **Response:**
  + **Success:** {"message": "User registered successfully"}
  + **Error:** {"error": "error message"}

#### **4. User Login**

* **Endpoint:** /api/login
* **Method:** POST
* **Request Body:**

json

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{  
 "username": "string",  
 "password": "string"  
}

* **Response:**
  + **Success:** {"message": "Login successful"}
  + **Error:** {"message": "Invalid username or password"}

#### **5. Get Driver Rating**

* **Endpoint:** /api/get\_driver\_rating/<driver\_id>
* **Method:** GET
* **Response:**
  + **Success:**

json

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{  
 "driver\_id": "string",  
 "rating": "integer",  
 "reviews": ["string"]  
}

* + **Error:** {"error": "error message"}

### 1. **ESP32 to MPU6050 Connections (I2C)**:

The MPU6050 sensor communicates with the ESP32 using the I2C protocol.

* **MPU6050 VCC** → **ESP32 3.3V** (Do **not** use 5V, as the MPU6050 operates at 3.3V)
* **MPU6050 GND** → **ESP32 GND**
* **MPU6050 SCL** → **ESP32 GPIO 22 (SCL)**
* **MPU6050 SDA** → **ESP32 GPIO 21 (SDA)**

### 2. **ESP32 to SIM800L Connections**:

The SIM800L uses UART communication, and your code is configured to use SoftwareSerial on GPIO 26 (RX) and GPIO 27 (TX).

* **SIM800L VCC** → **ESP32 5V** (Ensure your SIM800L module supports 5V; if not, use a 3.7V supply)
* **SIM800L GND** → **ESP32 GND**
* **SIM800L TX** → **ESP32 GPIO 26 (RX for ESP32)**
* **SIM800L RX** → **ESP32 GPIO 27 (TX for ESP32)**