# IoT DEVICE MANAGEMENT API DOCUMENTATION

### Base URL:

http://localhost:3000

### 1. Register a New Device

* Endpoint: POST /register

#### Request

* Body:
  + deviceId (string, required): Unique identifier for the device.
  + deviceType (string, required): Type or category of the device.
  + { "deviceId": "example\_device", "deviceType": "sensor" }

#### Response

* Status Code: 201 Created
* Body:
  + { "message": "Device registered successfully.", "device": { "deviceId": "example\_device", "deviceType": "sensor" } }

### 2. Display Registered Devices

* Endpoint: GET /show

#### Request

* None

#### Response

* Status Code: 200 OK
* Body: List of registered devices.
  + [ { "deviceId": "example\_device", "deviceType": "sensor" }, { "deviceId": "another\_device", "deviceType": "actuator" } ]

### 3. Receive Device Data

* Endpoint: POST /data

#### Request

* Body:
  + deviceId (string, required): Identifier of the sending device.
  + data (string, required): Data sent by the device.
  + { "deviceId": "example\_device", "data": "23.5°C" }

#### Response

* Status Code: 200 OK
* Body: Empty

### 4. Send Commands to Devices

* Endpoint: POST /command

#### Request

* Body:
  + deviceId (string, required): Identifier of the target device.
  + command (string, required): Command to be sent to the device.
  + { "deviceId": "another\_device", "command": "turn\_on" }

#### Response

* Status Code: 200 OK
* Body: Empty

### 5. Show Device Logs

* Endpoint: GET /logs

#### Request

* None

#### Response

* Status Code: 200 OK
* Body: List of log entries.
  + [ { "timestamp": "2024-02-18T12:34:56", "activity": "Device registration - example\_device (sensor)" }, { "timestamp": "2024-02-18T13:45:00", "activity": "Data received from example\_device: 23.5°C" }, { "timestamp": "2024-02-18T14:15:30", "activity": "Command sent to another\_device: turn\_on" } ]

### Error Responses

* Status Code: 400 Bad Request
* Invalid request format or missing required parameters.
* Status Code: 404 Not Found
* Endpoint not found or resource not available.
* Status Code: 500 Internal Server Error
* Unexpected server error.