

To **create a table in PostgreSQL** for your shipment tracking system, you need to define the appropriate **data types** for each column. Below is how you can create the shipments table.

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**1. SQL Query to Create Table**

```
CREATE TABLE shipments (  
  id SERIAL PRIMARY KEY,  
  device_id VARCHAR(50) NOT NULL,  
  shipment_id VARCHAR(50) UNIQUE NOT NULL,  
  status VARCHAR(50) NOT NULL,  
  current_location VARCHAR(100) NOT NULL,  
  destination_location VARCHAR(100) NOT NULL,  
  notes TEXT,  
  created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP  
);
```

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**2. Explanation of Each Column**

Column Name	Data Type	Description
id	SERIAL PRIMARY KEY	Auto-incrementing unique ID for each record
device_id	VARCHAR(50) NOT NULL	IoT device ID tracking the shipment
shipment_id	VARCHAR(50) UNIQUE NOT NULL	Unique shipment identifier
status	VARCHAR(50) NOT NULL	Shipment status (e.g., "In Transit", "Delivered")
current_location	VARCHAR(100) NOT NULL	Current location of the shipment
destination_location	VARCHAR(100) NOT NULL	Final delivery location
notes	TEXT	Additional information on the shipment
created_at	TIMESTAMP DEFAULT CURRENT_TIMESTAMP	Timestamp when the record was created

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### 3. Run the Query

#### Option 1: Using PostgreSQL CLI

If you are using the PostgreSQL command-line interface (psql), run:

```
psql -U your_user -d your_database
```

Then execute:

```
CREATE TABLE shipments (...);
```

#### Option 2: Using pgAdmin

1. Open **pgAdmin**.
2. Select your database.
3. Click on **Query Tool**.
4. Copy and paste the CREATE TABLE statement.
5. Click **Run** (Execute).

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### 4. Verify Table Creation

To check if the table was created successfully, run:

```
SELECT * FROM shipments;
```

or

```
\d shipments;
```

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INSERT INTO shipments (id, device\_id, shipment\_id, status, current\_location, destination\_location, notes, created\_at)

VALUES

(1, 'iot-101', 'SHIP-001', 'In Transit', 'Bangalore', 'Hyderabad', 'These package contains fragile electronics, Handle with care.', '2025-01-18T10:11:55.637Z'),

(2, 'iot-102', 'SHIP-002', 'Delivered', 'Mumbai', 'Mumbai', 'Successfully delivered to customer. No issues reported.', '2025-01-18T10:11:55.637Z'),

(3, 'iot-103', 'SHIP-003', 'Out for Delivery', 'Delhi', 'Jaipur', 'Expected delivery by end of day. Customer notified.', '2025-01-18T10:11:55.637Z'),

(4, 'iot-104', 'SHIP-004', 'In Transit', 'Hyderabad', 'Pune', 'Package delayed due to weather conditions, ETA updated.', '2025-01-18T10:11:55.637Z'),

(5, 'iot-105', 'SHIP-005', 'Pending', 'Kolkata', 'Ahmedabad', 'Awaiting pickup confirmation from Warehouse.', '2025-01-18T10:11:55.637Z'),

(6, 'iot-106', 'SHIP-006', 'In Transit', 'Chennai', 'Bangalore', 'Package contains perishable goods. Expedited shipping.', '2025-01-18T10:11:55.637Z'),

(7, 'iot-107', 'SHIP-007', 'Delivered', 'Jaipur', 'Jaipur', 'Delivered ahead of schedule. Customer satisfied.', '2025-01-18T10:11:55.637Z'),

(8, 'iot-108', 'SHIP-008', 'Out for Delivery', 'Pune', 'Mumbai', 'Final delivery attempt today. Customer unavailable yesterday.', '2025-01-18T10:11:55.637Z'),

(9, 'iot-109', 'SHIP-009', 'In Transit', 'Ahmedabad', 'Surat', 'Package contains high-value items. Security escort assigned.', '2025-01-18T10:11:55.637Z'),

(10, 'iot-110', 'SHIP-010', 'Delivered', 'Surat', 'Surat', 'Delivered with signature confirmation. No damages reported.', '2025-01-18T10:11:55.637Z'),

(11, 'iot-111', 'SHIP-011', 'In Transit', 'Bangalore', 'Chennai', 'Package contains fragile electronics. Handle with care.', '2025-01-19T09:42:30.160Z'),

(12, 'iot-112', 'SHIP-012', 'In Transit', 'Mumbai', 'Hyderabad', 'Package delayed due to weather conditions. ETA updated.', '2025-01-19T11:26:25.300Z'),

(13, 'iot-113', 'SHIP-013', 'Pending', 'Ahmedabad', 'Kolkata', 'Awaiting pickup confirmation from warehouse.', '2025-01-19T11:28:07.351Z'),

(14, 'iot-114', 'SHIP-014', 'Delivered', 'Chennai', 'Chennai', 'Successfully delivered to customer. No issues reported.', '2025-01-19T17:47:12.638Z'),

(15, 'iot-115', 'SHIP-015', 'Pending', 'Mumbai', 'Chennai', 'Awaiting pickup confirmation from warehouse.', '2025-01-20T06:07:20.604Z'),

(16, 'iot-116', 'SHIP-016', 'Pending', 'Kerala', 'Hyderabad', 'Awaiting pickup confirmation from warehouse.', '2025-01-20T12:50:28.574Z'),

(17, 'iot-117', 'SHIP-017', 'Pending', 'Delhi', 'Chennai', 'Ready to transit the shipment.', '2025-01-24T16:03:59.085Z');