-- Create the 'users' table

CREATE TABLE users (

id INT AUTO\_INCREMENT PRIMARY KEY,

name VARCHAR(255) NOT NULL,

email VARCHAR(255) UNIQUE NOT NULL,

password VARCHAR(255) NOT NULL, -- Use a strong hashing algorithm (bcrypt, Argon2) in a real app

role ENUM('admin', 'client', 'driver') NOT NULL

);

-- Create the 'shipments' table

CREATE TABLE shipments (

id INT AUTO\_INCREMENT PRIMARY KEY,

client\_id INT NOT NULL,

source VARCHAR(255) NOT NULL,

destination VARCHAR(255) NOT NULL,

driver\_id INT NULL, *-- Link to drivers*

vehicle\_id INT NULL, *-- Link to vehicles*

status ENUM('pending', 'picked\_up', 'in\_transit', 'delivered', 'canceled') DEFAULT 'pending',

FOREIGN KEY (client\_id) REFERENCES users(id),

FOREIGN KEY (driver\_id) REFERENCES users(id),

FOREIGN KEY (vehicle\_id) REFERENCES vehicles(id)

);

-- Create the 'vehicles' table (if needed)

CREATE TABLE vehicles (

id INT AUTO\_INCREMENT PRIMARY KEY,

vehicle\_number VARCHAR(50) UNIQUE NOT NULL,

type VARCHAR(50) NOT NULL, *-- Truck, Van, Car, etc.*

capacity INT NOT NULL, *-- Weight or volume capacity*

status ENUM('available', 'in\_transit', 'maintenance') DEFAULT 'available',

license\_number VARCHAR(255)

);

-- Create the 'routes' table (if needed) for route optimization

CREATE TABLE routes (

id INT AUTO\_INCREMENT PRIMARY KEY,

start\_point VARCHAR(255) NOT NULL,

end\_point VARCHAR(255) NOT NULL,

distance FLOAT NOT NULL,

estimated\_time INT

);

-- Add a table to track shipment locations (for real-time tracking)

CREATE TABLE shipment\_locations (

id INT AUTO\_INCREMENT PRIMARY KEY,

shipment\_id INT NOT NULL,

latitude FLOAT NOT NULL,

longitude FLOAT NOT NULL,

timestamp TIMESTAMP DEFAULT CURRENT\_TIMESTAMP,

FOREIGN KEY (shipment\_id) REFERENCES shipments(id)

);

--Optional: Bookings table to manage shipment bookings

CREATE TABLE bookings (

id INT AUTO\_INCREMENT PRIMARY KEY,

user\_id INT NOT NULL,

shipment\_id INT, -- Might be NULL until shipment is created

booking\_date TIMESTAMP DEFAULT CURRENT\_TIMESTAMP,

status ENUM('pending', 'confirmed', 'canceled') DEFAULT 'pending',

source VARCHAR(255) NOT NULL,

destination VARCHAR(255) NOT NULL,

FOREIGN KEY (user\_id) REFERENCES users(id),

FOREIGN KEY (shipment\_id) REFERENCES shipments(id)

);

CREATE TABLE payments (

id INT AUTO\_INCREMENT PRIMARY KEY,

client\_id INT NOT NULL,

shipment\_id INT NULL, *-- Link to the shipment if applicable*

payment\_date TIMESTAMP DEFAULT CURRENT\_TIMESTAMP,

amount DECIMAL(10, 2) NOT NULL,

method VARCHAR(50) NOT NULL, *-- e.g., 'credit card', 'paypal'*

FOREIGN KEY (client\_id) REFERENCES users(id),

FOREIGN KEY (shipment\_id) REFERENCES shipments(id)

);

ALTER TABLE vehicles

ADD COLUMN driver\_id INT NULL,

ADD CONSTRAINT fk\_vehicles\_drivers FOREIGN KEY (driver\_id) REFERENCES users(id);

ALTER TABLE users ADD COLUMN client\_phone VARCHAR(20);