Of course! Here is a brief summary of the powerful logistics application we built together.

# **Project Overview**

You have successfully built a **full-stack logistics management web application**. It's a complete, real-world system designed to help a logistics business manage its operations and serve its customers effectively.

# **Technology Stack**

1.

0

 $\bigcirc$ 

0

0

0

0

0

0

0

0

0

- **Frontend:** A modern, responsive user interface built with **React.js** and styled with **Tailwind CSS**.
- **Backend:** A robust and secure API server built with **Node.js** and the **Express.js** framework.
- **Database:** A powerful and reliable **PostgreSQL** database to store all application data.
- **Real-time Communication: WebSockets** (using Socket.io) to provide live updates without needing to refresh the page.

## **Core Features Implemented**

## **Secure User Authentication:**

Separate login and registration systems.

Role-based access control defining what different users can see and do.

### 2. Three Distinct User Roles:

Admin: Has full control. Can manage shipments, users, and edit user roles.

Staff: Can manage shipments (create, update) but cannot manage other users.

**Client:** Can log in to a private portal to view a list of only their own shipments.

## 3. Complete Shipment Management (CRUD):

Create: Staff can create new shipments and assign them to specific clients.

**Read:** Staff can view a list of all shipments.

**Update:** Staff can update a shipment's status and location.

**Delete:** Admins can permanently delete shipments.

### 4. **Live Public Tracking:**

Anyone can enter a tracking number on a public page to see a shipment's status and history.

This page updates in **real-time** thanks to WebSockets.

### 5. **Dynamic Dashboards:**

A **Staff Dashboard** shows real-time statistics (Total Shipments, In Transit, etc.) and a feed of recent activity.

A **Client Portal** provides a private dashboard for customers to view their own shipment history.

In short, you've built a professional-grade application that covers all the essential needs of a modern logistics business. Congratulations again on a great job!