

Shipment Management Solution

Introduction:

The client operates a trucking business. They used to manage all their business and transportation work and track all transactions using offline spreadsheets. Seeking automation, the client came up with an idea to create an application to automate and streamline these tasks.

We understood the client's requirements and developed a comprehensive solution. The app is designed to facilitate seamless shipment management among carriers, shippers and brokers. Each user type has a distinct role in the shipping process.

Client details:

Name: Confidential | **Industry:** Transportation | **Location:** USA,

Technologies:

Mobile:	Native Android using Kotlin and iOS using Swift
Web:	ReactJS, Redux and Material UI
API code:	Django REST Framework
Database:	PostgreSQL
Task queue:	Celery + Redis
AWS Services:	EC2, S3, RDS, SNS, SES
Payment Gateway:	Stripe Connect
Logging Tool:	Sentry
Code Repository:	Bitbucket
Deployment tool:	Ansible
API Documentation:	Swagger

Shipment Management Solution

Project Description:

In order to fulfill the client's needs, our team built native mobile applications in iOS and Android, along with a web application. The overall solution has features to cater to the needs of carriers who handling shipments, truckers, and shippers who post shipment details for transportation. Users are required to sign up before accessing the app or the website. With this application, users can effortlessly post, book, and track shipments using their mobile device.

The different user types for this product are: **Carrier, Shipper and Broker.**

Carrier Flow:

A Carrier is a user type in the app who can transport various items such as vehicles, furniture, etc. They can also assign tasks to other Truckers.

To use the app, a Carrier can sign up or log in using their email ID, Gmail, or Facebook account. Upon initial sign-in, carriers must complete their profile dashboard, providing personal and company information.

Once logged in, a Carrier can:

1. View available shipments in their area/location on the Landing page, which includes a Google Map.
2. Search for shipments in other cities and apply filters according to their requirements.
3. View available shipments on the Dashboard map as markers, as well as in card and list views with some shipment details.
4. Select a shipment to see more details and Place a Bid for the shipment.
5. Before booking a shipment, a Carrier must add at least one Trucker or assign themselves as a Trucker and upload truck-related documents.
6. Post truckers and manage them, including adding themselves as a Trucker or driver.
7. Chat with the Shipper for any information once a shipment is booked.
8. Truckers can update their location while transporting shipments.

Shipper Flow:

A Shipper is a user type in the app who can log in or sign up to add shipments for transportation. When adding a shipment, a Shipper can include items such as vehicles, furniture, retail goods, etc.

Shipment Management Solution

They need to provide detailed information about the shipment, including:

- Shipment category
- Load size
- Equipment required
- Weight
- Pickup location and date/time
- Drop-off location and date/time
- Price for transportation

Once a Shipper adds a shipment, they can review bids from carriers and confirm the bid they prefer.

After booking a shipment, a Shipper can:

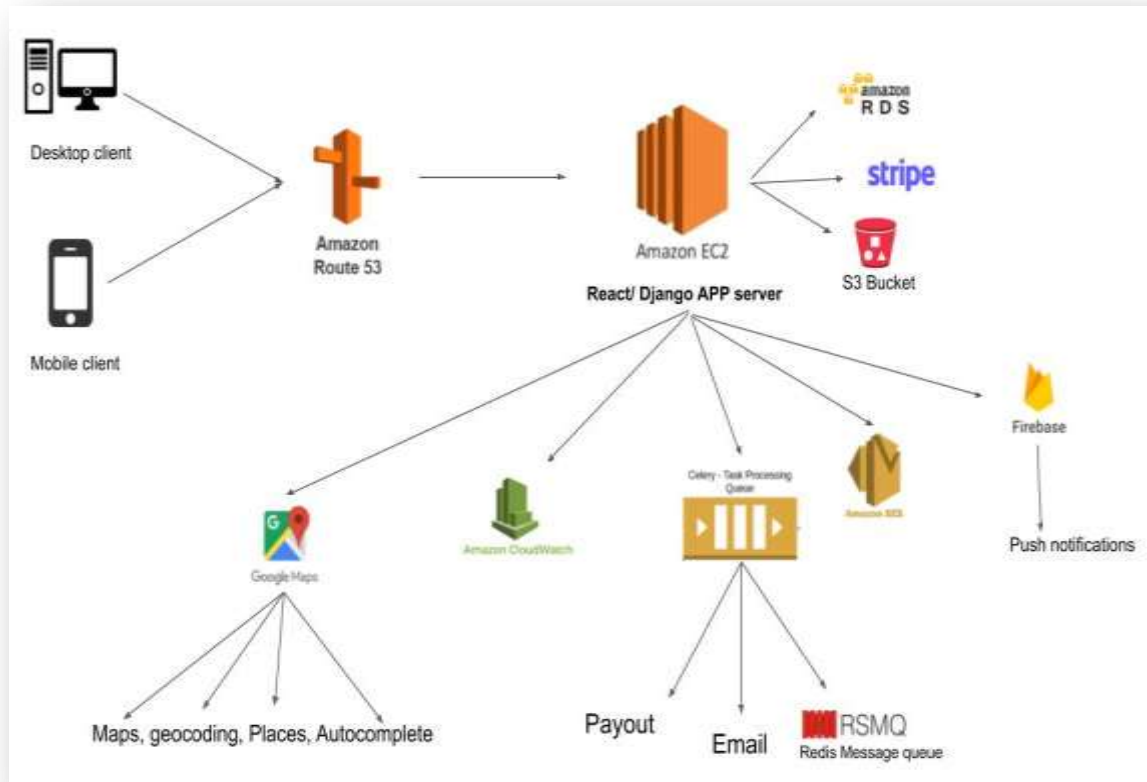
1. Chat with the selected Trucker or Carrier for any information.
2. Track their shipment while it is being transported.

Broker Flow:

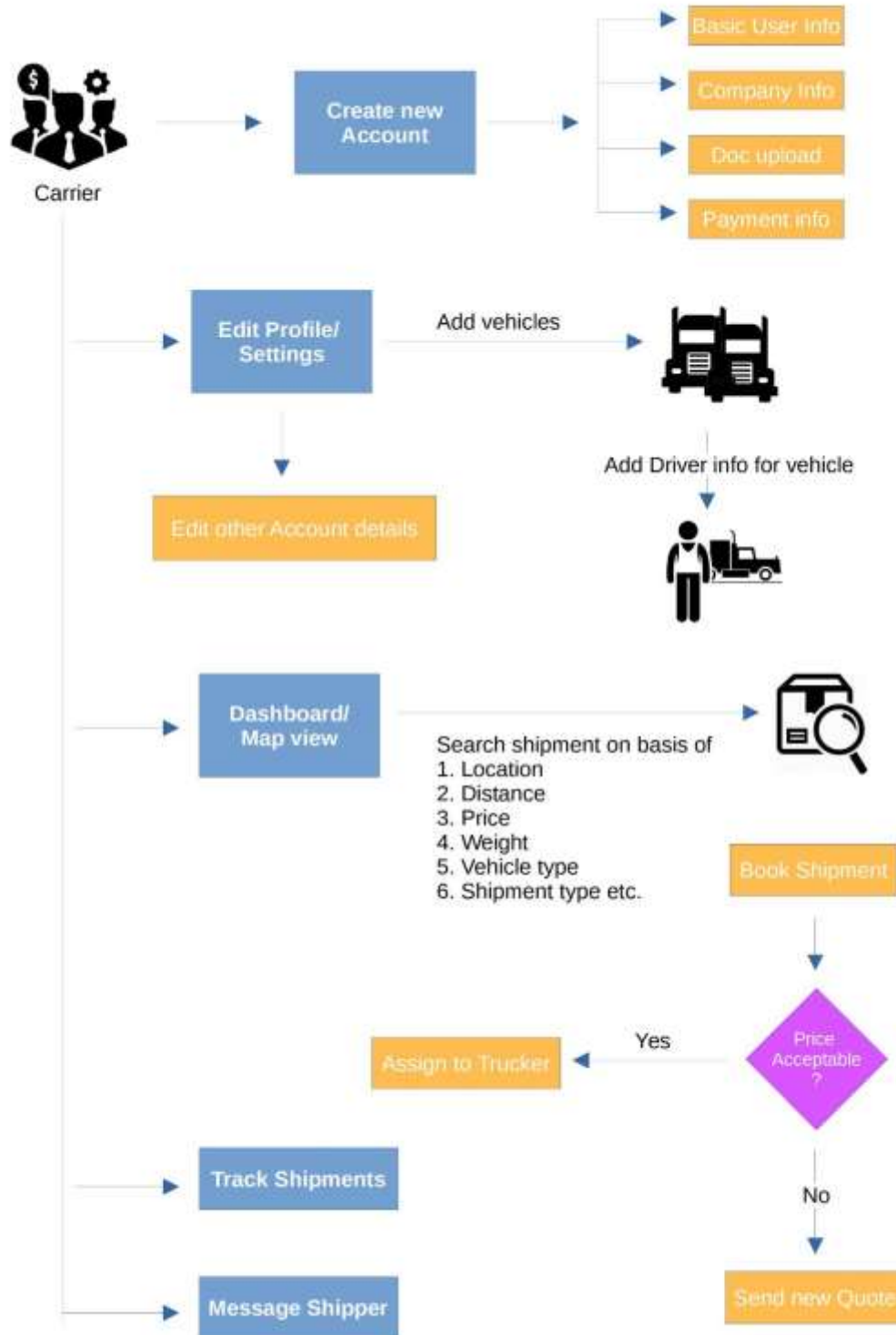
Brokers can act as carriers as well as shippers.

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Architecture Diagram:



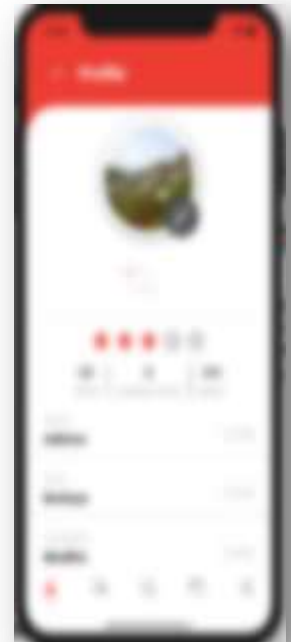
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Screenshots:

Mobile App:



Web App:



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