

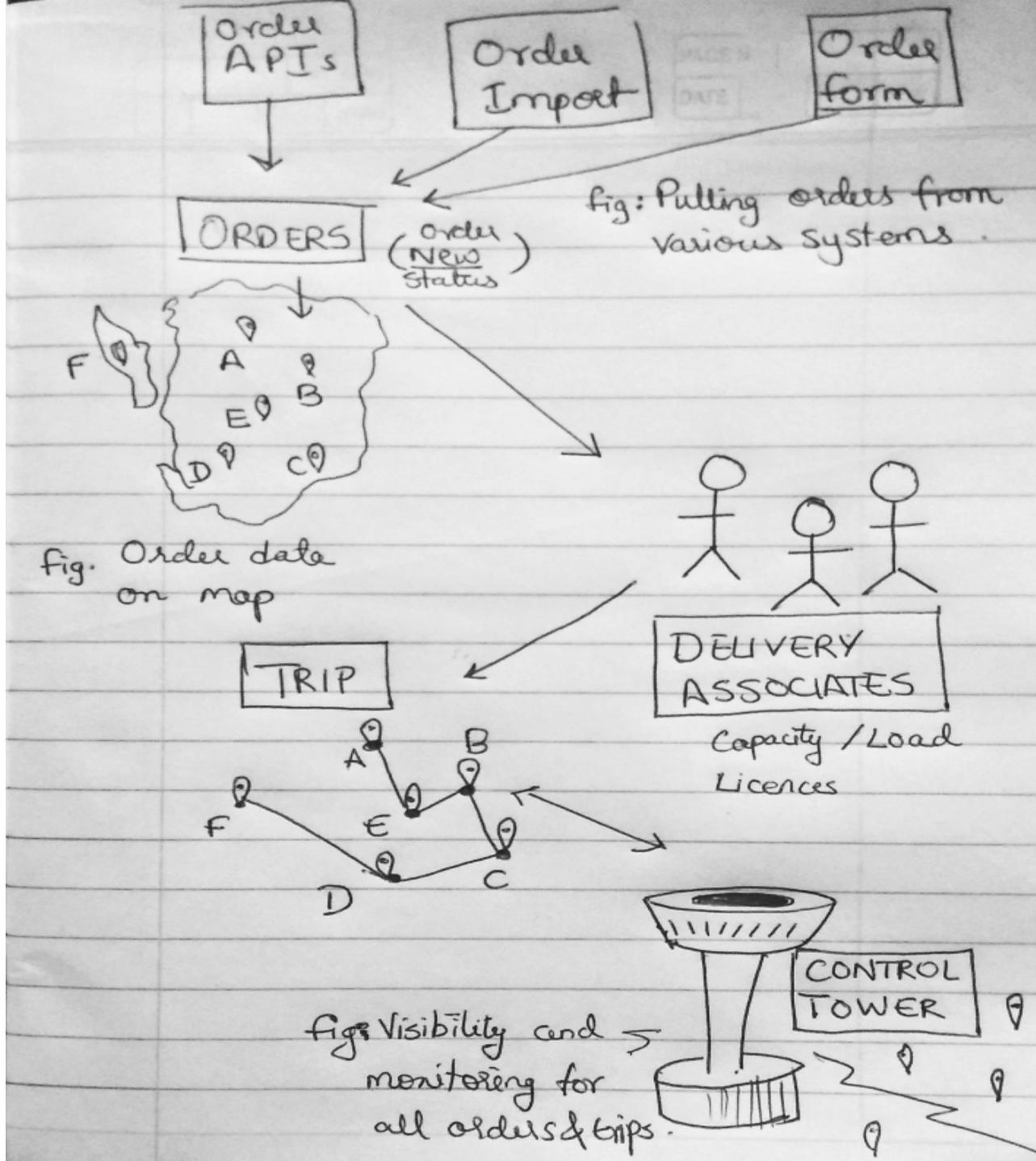
Daakiya (ડાક્યા)

Route Optimization, Planning and Management
for Last Mile Trips

Chirag Pandit
HERE Technologies - Mumbai

Process Model

- Orders arrive in this system from various sources
- Assignment for these orders into a trip keeping onto account some key factors like delivery timings and location preference
- Control Tower personnel monitors the trip progress happening on ground



Daakiya helps you find your shortest path between locations.

One stop solution to
Route Optimization. |

Sign Up

[Sign in with Google !\[\]\(cbe2492b119e39e02a1dab2af4a4b296_img.jpg\)](#)

Email address

ram.krishna12@gmail.com

Password

.....

Name

First name

Remember Me

Register

Orders

Add Orders +



Order# - 1561060761612

Status : NEW

ETA : June 27th 2019, 6:30:00 pm

Customer : Yusuf Khan

Address : Golden Nest Mira Bhayander RoadMira Bhayander 401107 MH

Edit

Delete

More Option ▾



Order# - 1561060717357

Status : NEW

ETA : June 27th 2019, 3:05:00 pm

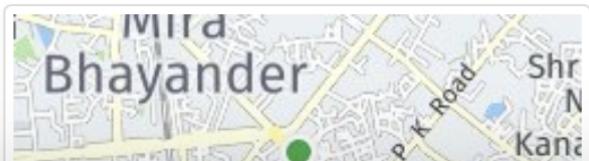
Customer : Chirag

Address : Silver Park Mira Bhayander RoadMira Bhayander 401107 MH

Edit

Delete

More Option ▾



Order# - 1561058854459

Status : COMPLETED

ETA : June 26th 2019, 7:09:00 pm

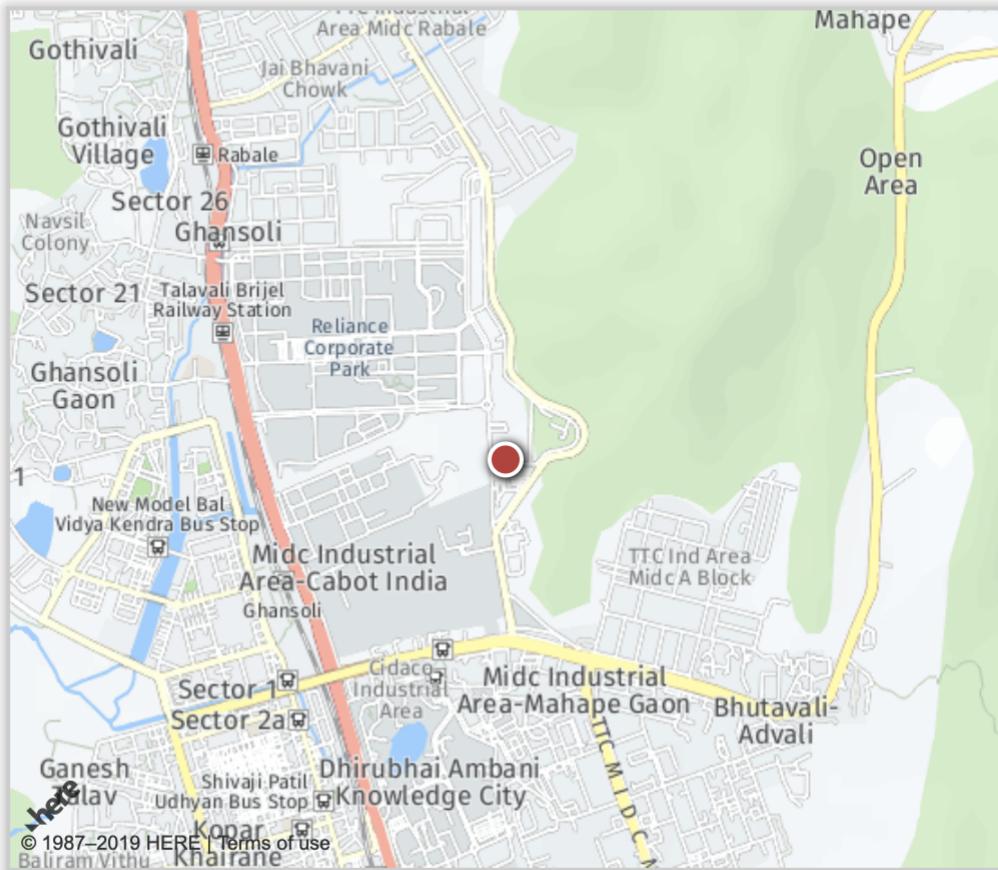
Edit

Delete

Add order form

Daakiya Orders Fleet Routes

Start typing order address here to geocode.



Order Details

Order Number *:	<input type="text" value="1561176152125"/> Generate Number
Customer*:	<input type="text" value="Enter Customer Name"/>
Order alias:	<input type="text" value="Your order alias (Eg. Jack's Order)"/>
Edit Address*:	<input type="text" value="Enter address"/>
Delivery ETA:	<input type="text" value="dd/mm/yyyy, --:-- --"/>
Latitude:	<input type="text" value="19.1232413"/>
Longitude :	<input type="text" value="73.0174354"/>

[Add Order](#)

Delivery Associates

[Add Associate +](#)

Getting your delivery fleet...



Delivery Associates

Add Associate +

Ram Krishna

Status : AVAILABLE

Emp# : 23343545

Address : Madiwala, St Johns Hospital,
Bangalore

Track

Book Vehicle

Chirag Pandit

Status : AVAILABLE

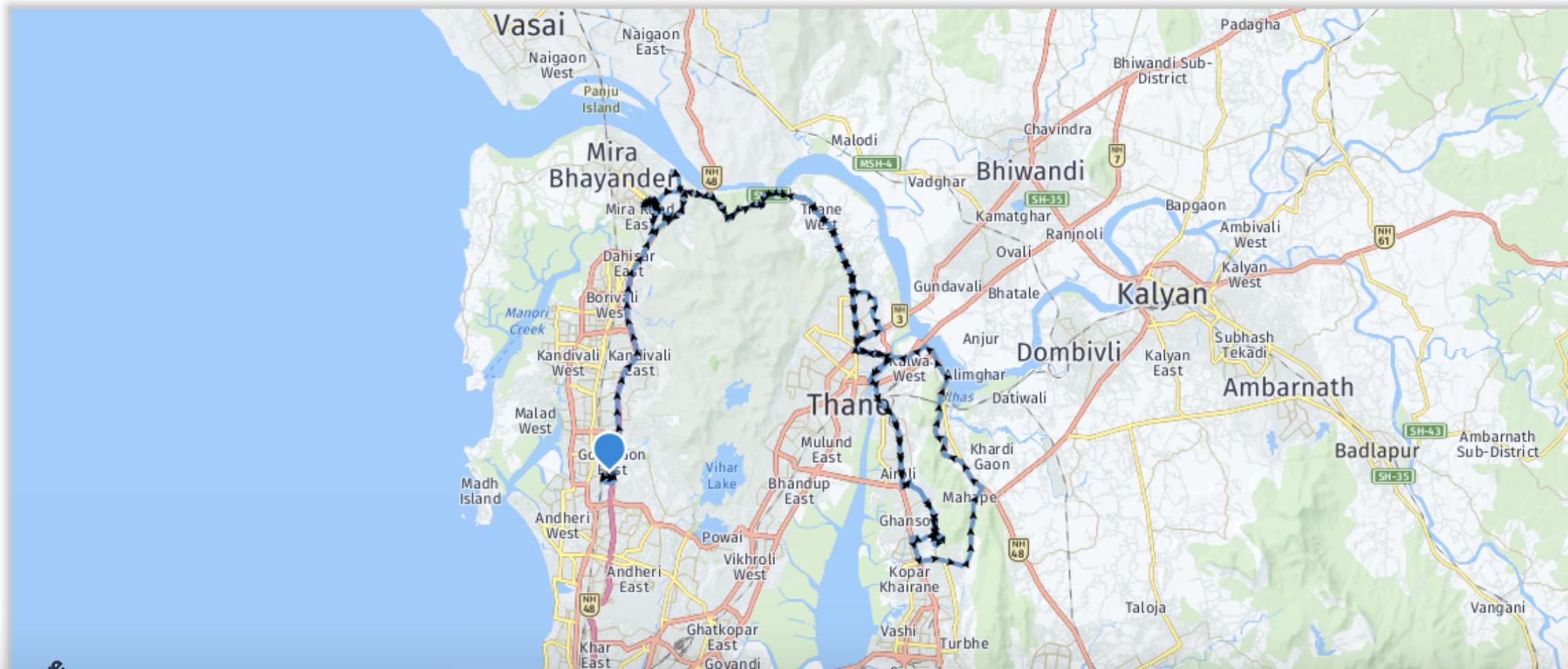
Emp# : 35453

Address : Madiwala, St Johns Hospital,
Bangalore

Track

Book Vehicle

Tracking History

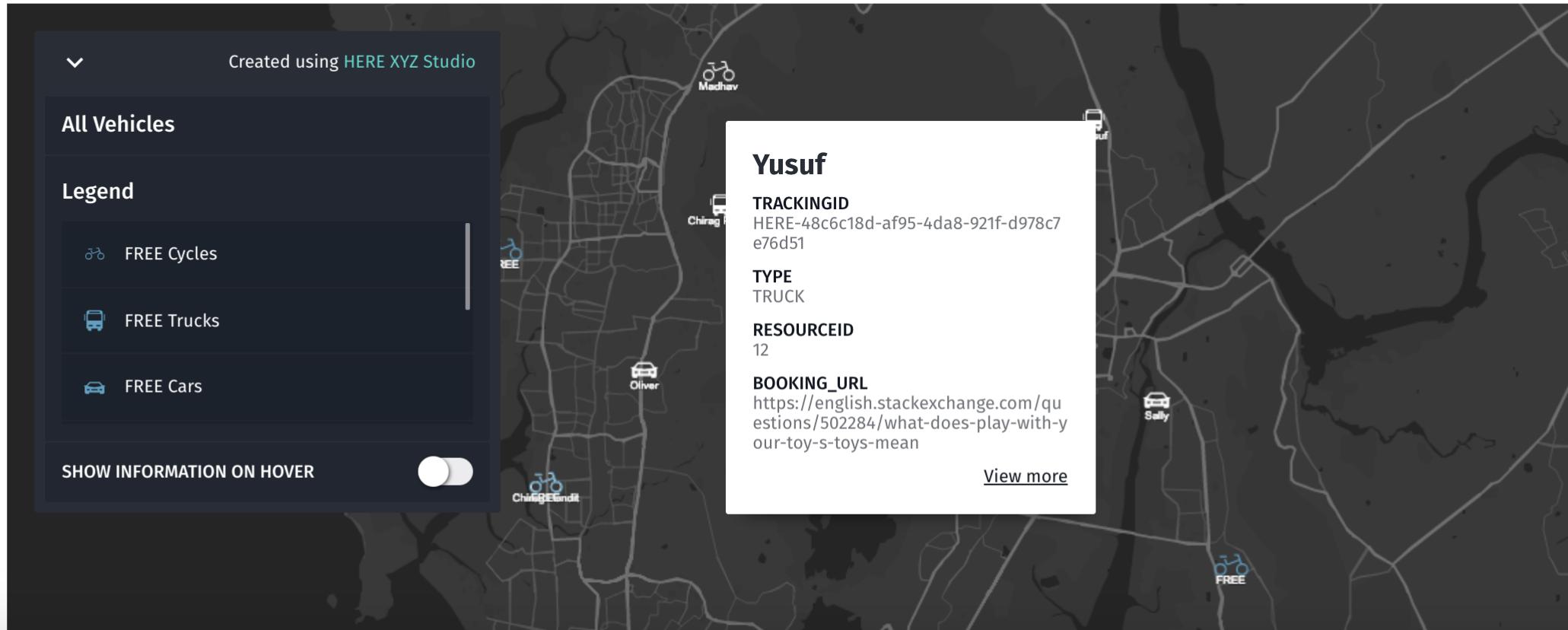


Vehicles data in HERE XYZ

Daakiya Orders Fleet Routes

dead.night7@gmail.com Logout

Pooled Vehicles



Route Details

TRIP-1561142954247

Total Distance - 2.445 km

Order 1561060717357

⌚ ETA : 2019-06-27T15:05

TripStop# : 0

Customer : Chirag

Address : Silver Park Mira Bhayander RoadMira Bhayander 401107 MH



[Navigate](#)

[Completed](#)

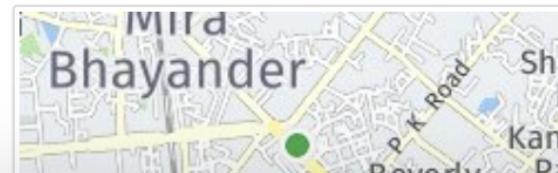
Order 1561060761612

⌚ ETA : 2019-06-27T18:30

TripStop# : 1

Customer : Yusuf Khan

Address : Golden Nest Mira Bhayander RoadMira Bhayander 401107 MH



Route Details

TRIP-1561142954247

Total Distance - 2.445 km



Order 1561060717357

⌚ ETA : 2019-06-27T15:05

TripStop# : 0

Customer : Chirag

Address : Silver Park Mira Bhayander RoadMira Bhayander 401107 MH



Order 1561060761612

⌚ ETA : 2019-06-27T18:30

TripStop# : 1

Customer : Yusuf Khan

Address : Golden Nest Mira Bhayander RoadMira Bhayander 401107 MH

Printed - Delivery run sheet

HERE Services Involved

- HERE Geocoding API
- HERE Places API
- HERE Routing API
- HERE Waypoints API
- HERE Map Image API
- HEReweGo (Web and Mobile)
- HERE XYZ Studio
- HERE XYZ Hub API



Logistics is complex

- Everything around you has a logistics backbone around it
- Enterprises work hard to get things around you, in variety of ways
- But its not easy for them to do that everyday



Problem

- Logistics and Supply chain last mile deliveries
 - Should be able to find the optimized route for a given orders dataset
 - Should be able to consider key factors in like traffic, capacity for delivery associate and location preference for delivery agent
 - Analyze and monitor the progress for each order deliveries

Features Covered

- Ability to add orders and create a route plan
- Ability to plan routes based on delivery times for all Last Mile deliveries considering a given time frame
- Ability to add delivery associates and assign tracking
- Integrations with HERE Tracking for delivery tracking and HERE XYZ for data storage
- Ability to share, print existing route created from this system to HEREWeGo Mobile App

Technologies used

- Front End
 - HTML, CSS, JavaScript,
 - jQuery
 - Firebase Hosting
- Backend
 - HERE XYZ Spaces
 - Firebase Cloud DataStore
 - Firebase Authentication
 - Firebase Cloud Functions

Impact Analysis

- System can be used in places for last mile delivery optimization in Logistics Domain which includes industries from
 - Postal Services
 - Courier partners 3PL (3rd Party Logistics)
 - FMCG Industries – (Fast Moving Consumer Goods, Eg. DMart)
 - Food Delivery Partners (eg. Swiggy, Zomato, McDondals)

Prototype Link

<https://github.com/deadnight7/daakiya/>

Hosted Site link:

<https://a-positronium.firebaseioapp.com>