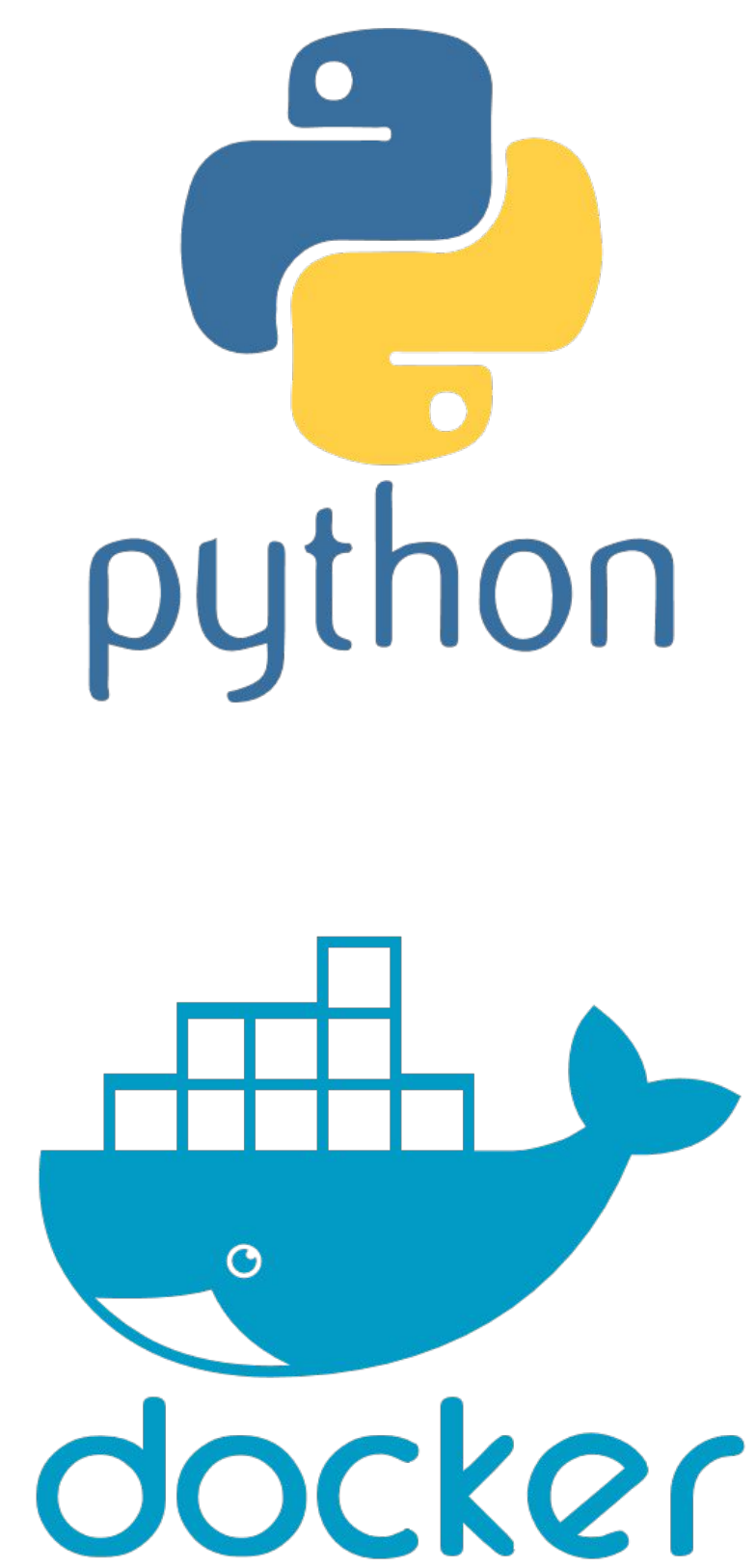




Knight Foundation School of Computing and Information Science

Fall 2023 Senior Design Project

Project Manager

Students: Jose Hernandez, Jose Pujol, Naor Vidal

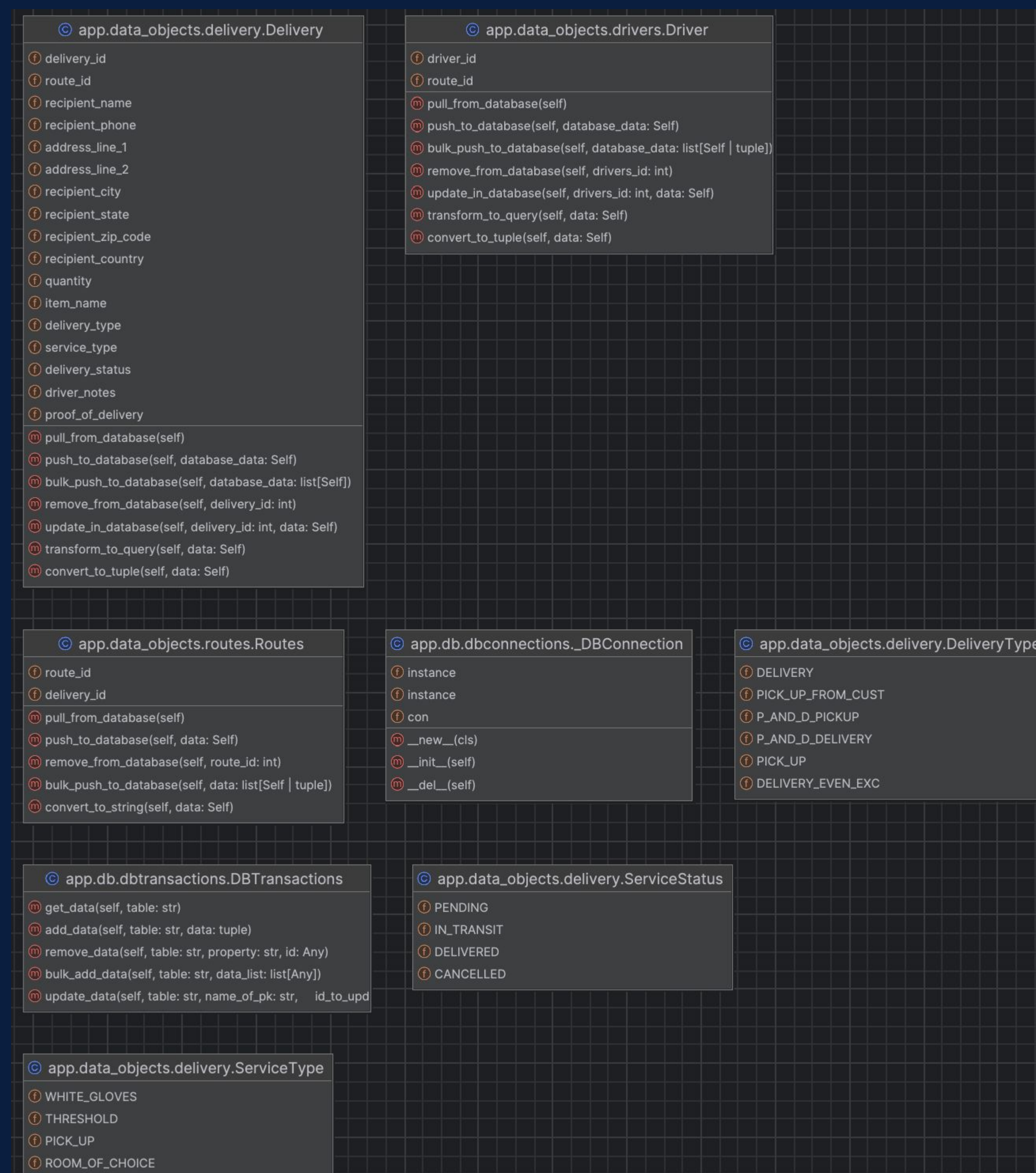
Mentor: Aydin Danaci, Branch Manager, Ukay Trucking and Delivery Services

Instructor/Faculty: Dr. Masoud Sadjadi, Florida International University

PROBLEM

Ukay Furniture Delivery currently tracks all deliveries manually through the use of spreadsheets, and physical forms. There is no advanced-integrated system that allows for live checks on item deliveries, the status of the delivery, nor any checks to see if drivers are following a pre-determined route. This introduces many variables that can cause delays in shipments, as well as the loss of confirmations of receipts, meaning that the administrative dispatch team may lose the ability to confirm if a delivery was ever attempted or completed for any one delivery.

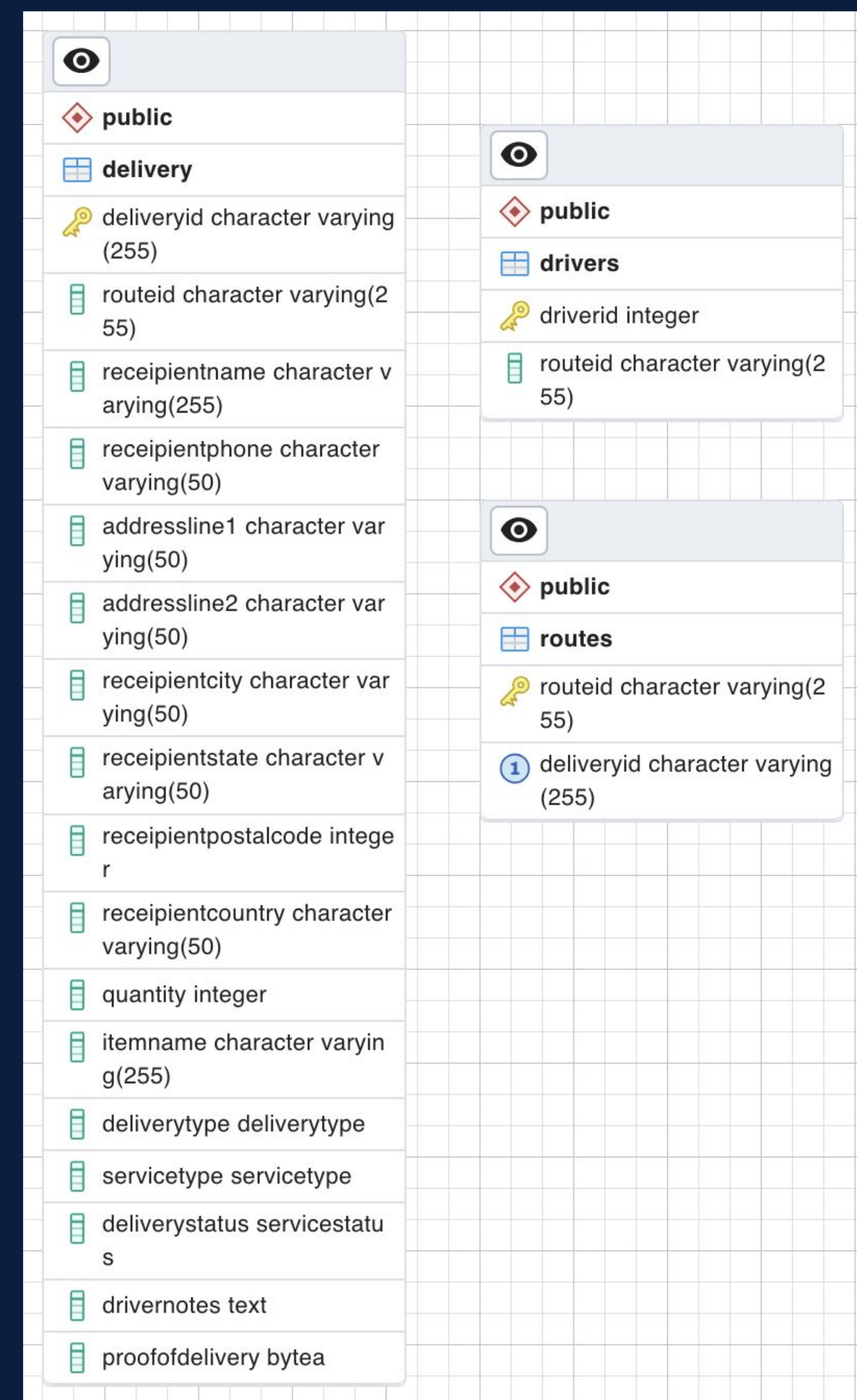
OBJECT DESIGN



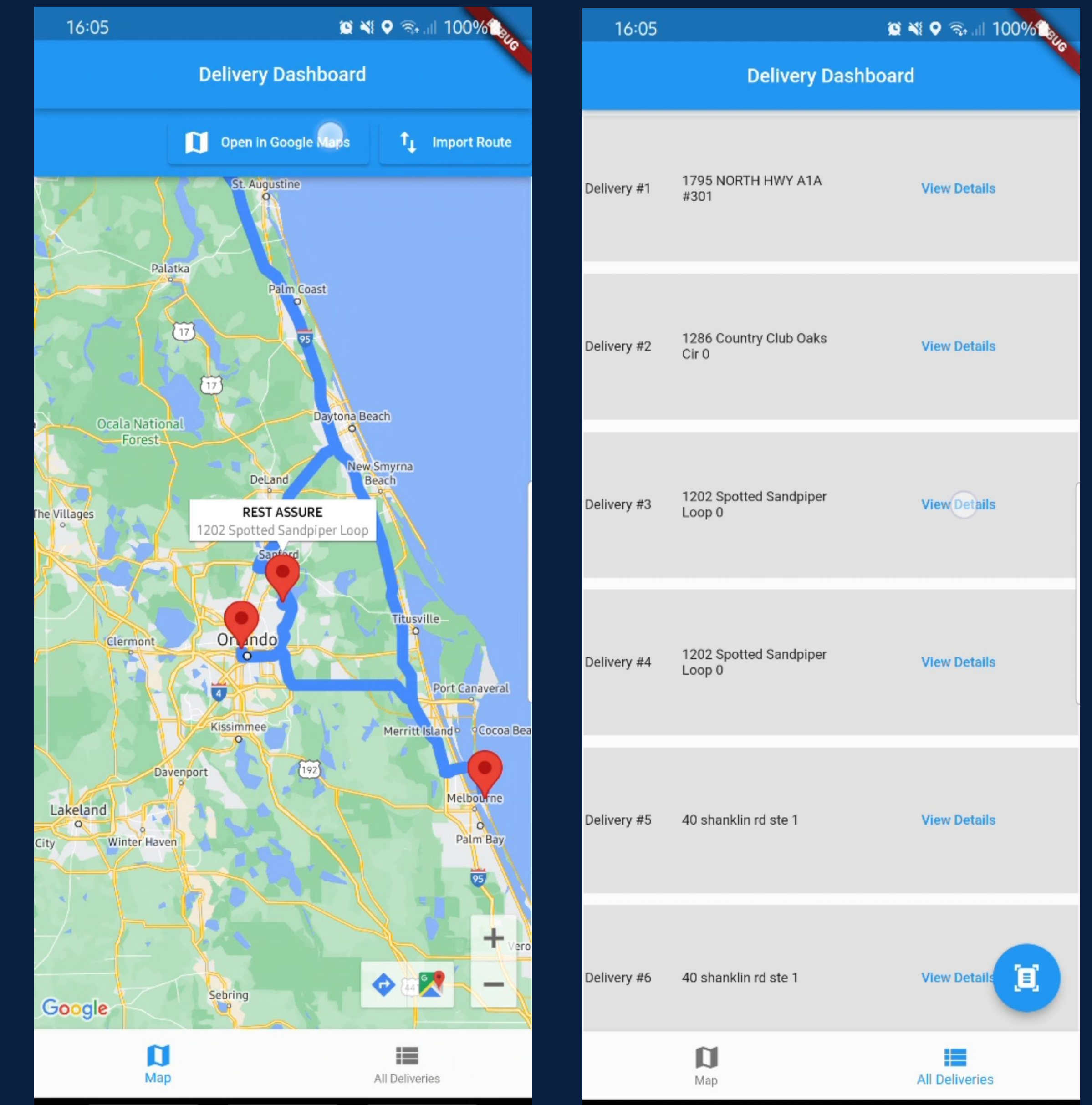
CURRENT SYSTEM

The current system that the company uses less-than ideal, and requires a significant amount of manual labor. They current plan their delivery routes manually through spreadsheets. Additionally, drivers, dispatch administrators, and clients are all unable to track at what state any one delivery is at. Drivers must manually fill out physical forms to comment on the status of a delivery.

DATABASE DESIGN



IMPLEMENTATION



SUMMARY

The Ukay Furniture Delivery system currently relies on manual tracking through spreadsheets and physical forms, leading to potential delays and loss of confirmation for deliveries. To address this, a mobile application was developed for clients, dispatchers, and drivers. The app allows uploading delivery details, viewing assigned deliveries, and verifying information before initiating deliveries through integrated navigation. Administrators can track live updates as drivers progress. The system works across platforms, ensuring scalability and robustness. However, security concerns exist in the current implementation, and the front-end lacks features like data caching and transaction queuing, impacting performance when the back-end is inactive.

ACKNOWLEDGEMENT

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