



Beta Presentation

Automated Damage Logging for Truck Drivers

The Capstone Experience

Team RPM

Flower Akaliza

Gavin Bourdon

Hayden Rance

Alfredo Sanchez Perez

Dheeraj Thota

Troy Williams

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*From Students...
...to Professionals*

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Project Overview

- RPM specializes in vehicle and freight transportation. They connect their clients to truck drivers who complete these deliveries.
- Truck drivers must log the damages on cars they transport. Currently that logging is done manually.
- Our project is to build a mobile app that uses an ML model to automatically identify and log damages on cars using images.

Team Member's Technical Tasks

Technical Tasks Assigned

• Flower Akaliza

- Backend development: build and manage the backend and database, including designing and debugging routes, schemas, and models to support the app and website.
- Dashboard integration: develop and connect website dashboard analytics to the backend for real-time data visualization.

• Gavin Bourdon

- Frontend development: build and design the frontend of the mobile app using Flutter and implement backend APIs to enable real-time data retrieval and interactions
- Analytics website: generate mock report data and create analytics features to display on the website

• Hayden Rance

- ML model: build and manage both the model and dataset to run and test the model
- Backend development: help build and design routes in the backend to edit and delete data
- Website integration: connect and display cars and damage log tables from the backend and the website

• Alfredo Sanchez Perez

- Frontend development: build and design the frontend of the mobile app using Flutter
- Implement backend APIs and user authentication in the mobile app

• Dheeraj Thota

- ML model: build and manage both the model and dataset to run and test the model
- Frontend and backend development: clean up frontend and backend to ensure smooth end-to-end connections
- Platform management: dockerize the backend and create a VM to host it along with CI/CD pipeline

• Troy Williams

- Backend development: build and manage the backend and database, including designing and debugging routes, schemas, and models to support the app and website.
- Website integration: connect and display user and reports tables from the backend to the website.

Technical Tasks Completed

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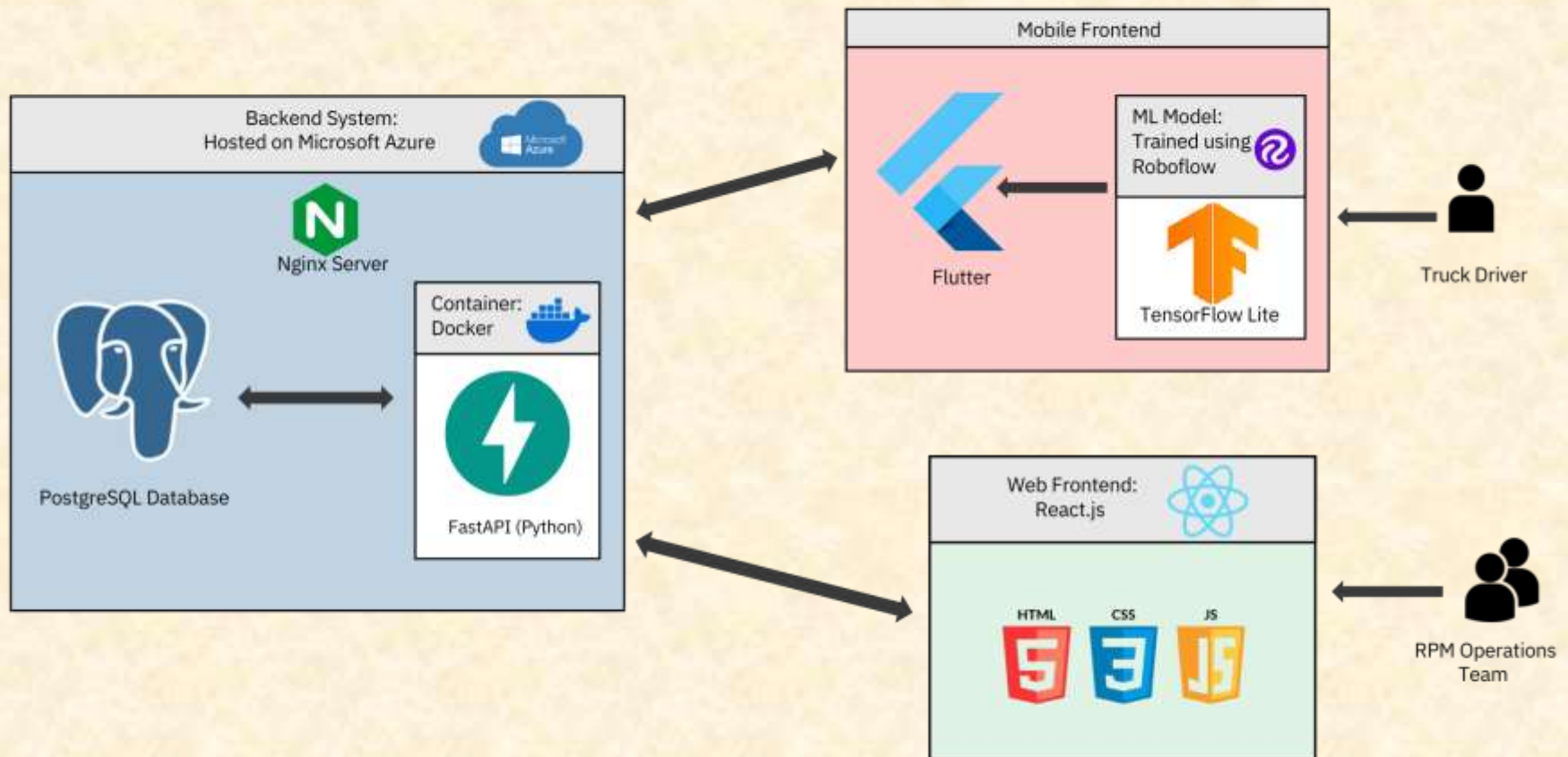
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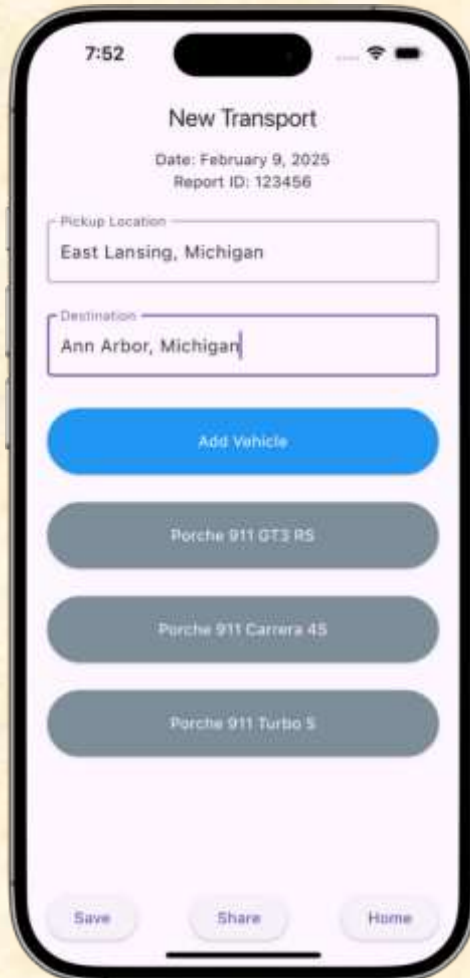
System Architecture



Home Page and Past Transport Page



New Transport Page and Camera Page



Review Page and Shared Reports Page

2:23

Report Verification

Please review the information below to ensure it is correct before saving the vehicle.

Car Model
Ford Mustan GT

VIN
1FA6P8CF0M5101234

AIAG Code: 12043

Notes
The right front of the vehicle has a dent measuring between 3 and 6 inches.

Save vehicle Cancel

5:57

Shared Reports

ID#: 1234 12/25/3039
Miami, FL to New York, NY
Shared With: John Doe

ID#: 5678 12/25/3038
Detroit, MI to Chicago, IL
Shared With: Jane Doe

ID#: 91011 12/25/3037
San Francisco, CA to Boston, MA
Shared With: Insurance Company

ID#: 121314 12/25/3036
Las Vegas, NV to Los Angeles, CA
Shared With: RPM

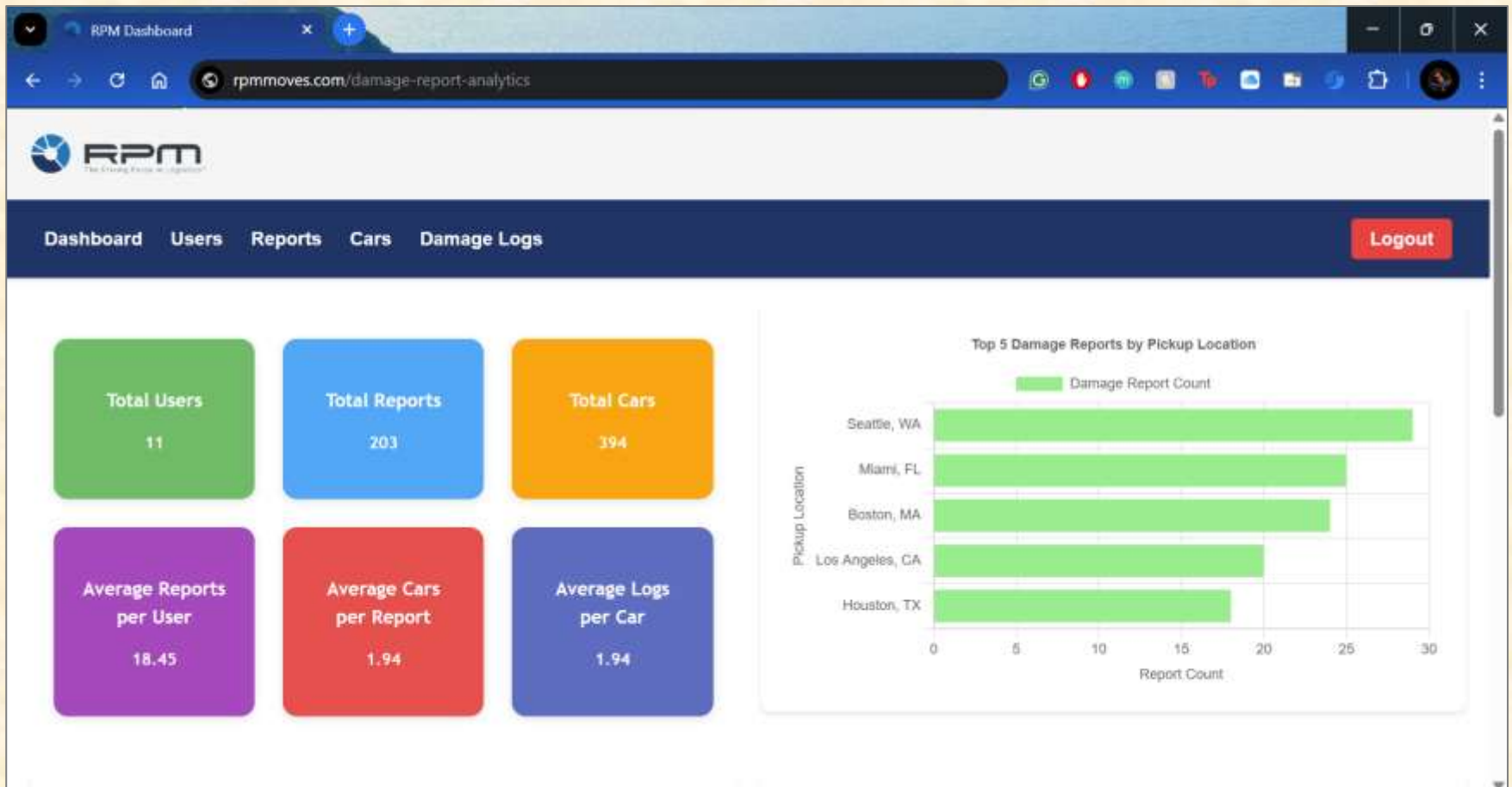
ID#: 151617 12/25/3035
Miami, FL to New York, NY
Shared With: John Doe

ID#: 181920 12/25/3034
Detroit, MI to Chicago, IL
Shared With: Jane Doe

ID#: 212223 12/25/3033
San Francisco, CA to Boston, MA



Web Analytics Interface



What's left to do?

- Features
 - Done
- Stretch Goals
 - None
- Other Tasks
 - Debug frontend-backend connections to ensure a smooth user experience
 - Implement UI enhancements

Questions?

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