

Fuel Log



MERN Stack Application

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About the application

The fuel usage data from vehicle assets can provide useful analytical trends for a company so that it can better manage fuel costs over the running service periods of company assets.

Features

- Graphing and tabular reports
- Multi-vehicle tracking
- Trip and fuel usage monitoring
- Individual employee monthly usage report
- Simple and intuitive UI

Purpose

To help keep track of the fuel usages for a company, a fast and easy to use application that is centered around logging instances of fuel refilling of a vehicle can give assistance to determining how much fuel different company assets require.

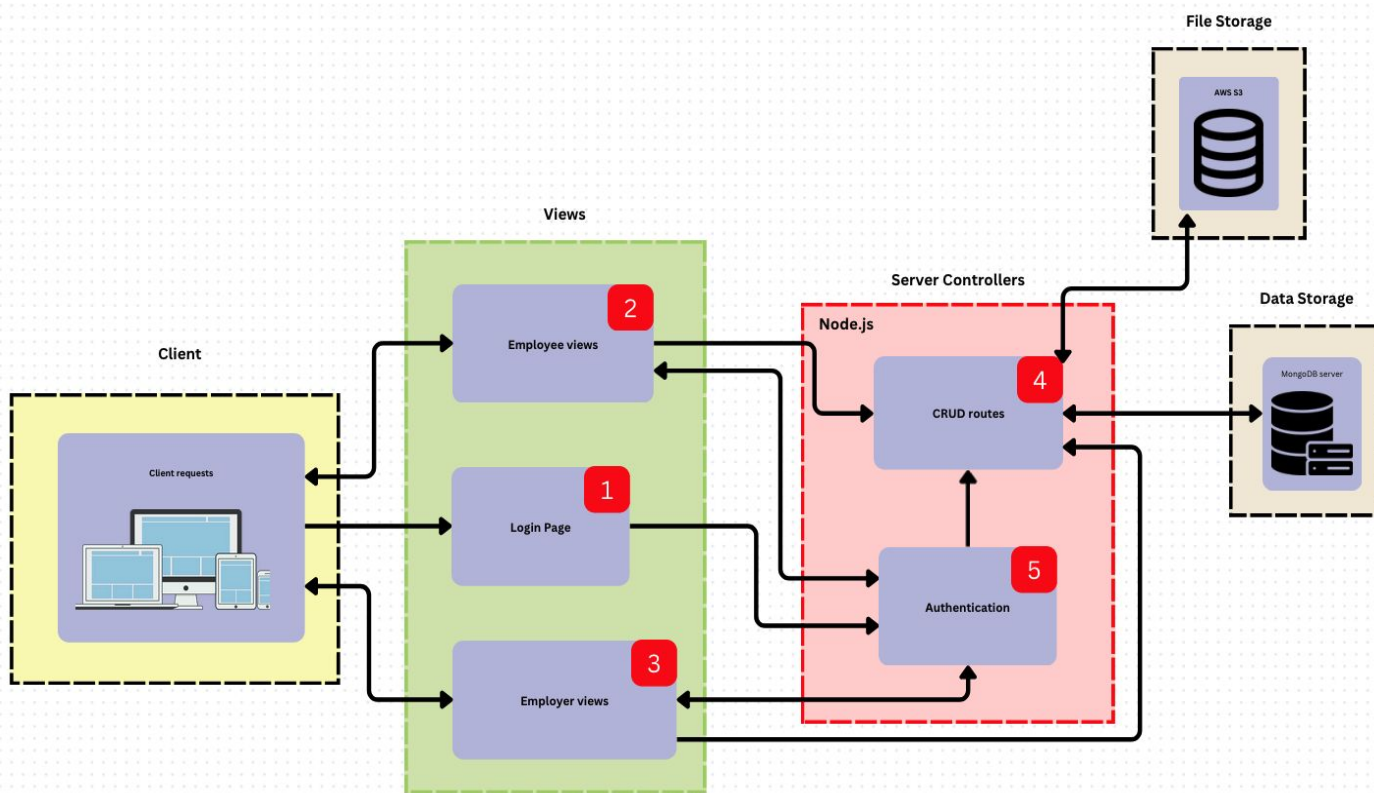
The application uses the recorded data to generate useful reports for the company in an easy-to-understand way, allowing for the company to potentially have the ability to budget and plan for fuel expenses.

Project timeline

- Back-end:
 - Collection modelling. **Duration: 1 day**
 - Basic end-point routes for CRUD operations. **Duration: 1 day**
 - Analytical routes for Logs and Vehicles. **Duration: 1-2 days**
 - Authentication of routes. **Duration: 1 day**
 - Testing and Deployment. **Duration: 1 day**
- Database and storage setup. **Duration: 0.5 day**
- Front-end:
 - Component building. **Duration: 2-3 days**
 - Graphing and Tabular report Components. **Duration: 1 day**
 - Styling. **Duration: 1-2 days**
 - Testing and Deployment. **Duration: 1 day**

Application Architecture

There are two different storage systems that were chosen for the application. A database for storing all the recorded data and a file storage system for storing the vehicle images that will be uploaded for each vehicle.

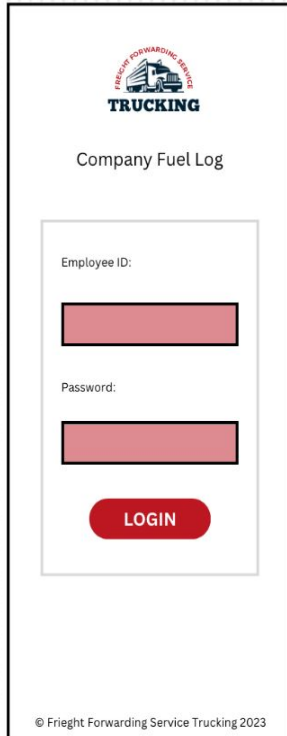


- Access login page, enters details
- Authentication routes query database for password match
- User can access different dashboard depending on account

Mobile Wireframes

The employee pages don't have a Nav bar. The Nav bar is replaced with the square buttons at the bottom of the page. This is because the employee only uses the app to record a fuel log.

Login Page



Company Fuel Log

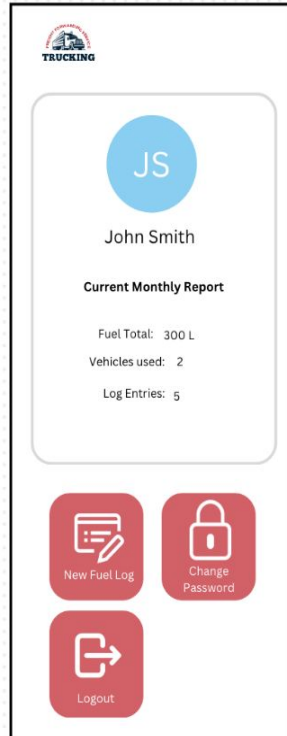
Employee ID:

Password:

LOGIN

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Employee Home Page



TRUCKING

JS

John Smith

Current Monthly Report

Fuel Total: 300 L

Vehicles used: 2

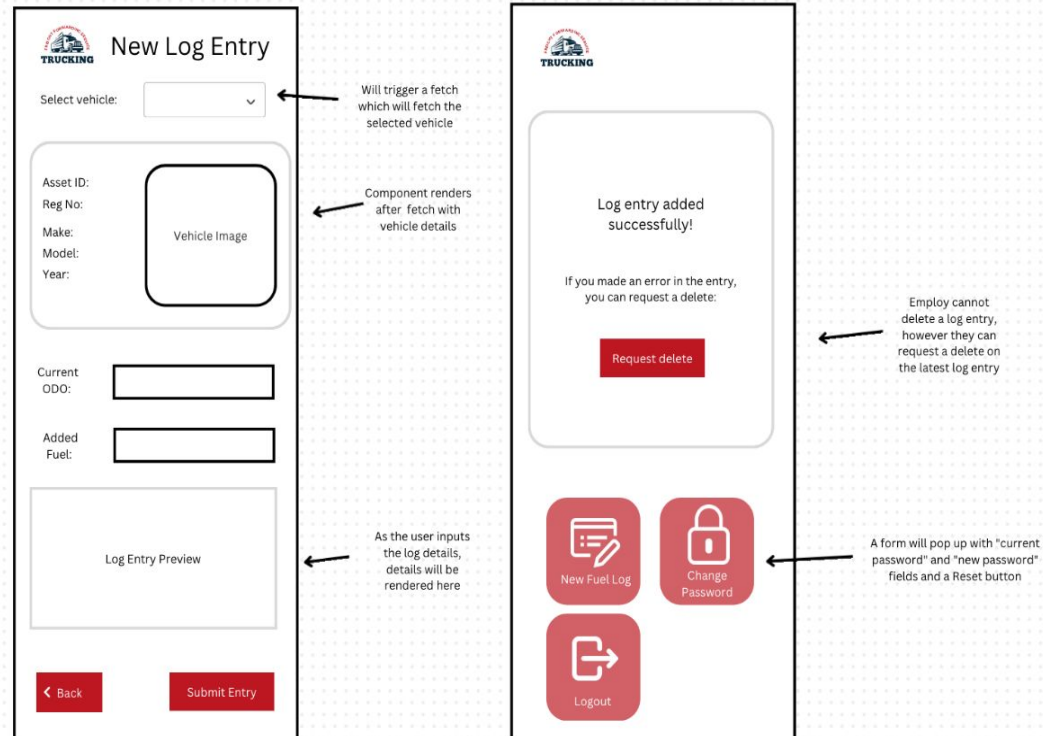
Log Entries: 5

New Fuel Log

Change Password

Logout

Log record form



TRUCKING

New Log Entry

Select vehicle:

Will trigger a fetch which will fetch the selected vehicle

Asset ID:
Reg No:
Make:
Model:
Year:

Vehicle Image

Component renders after fetch with vehicle details

Current ODO:

Added Fuel:

Log Entry Preview

As the user inputs the log details, details will be rendered here

Log entry added successfully!

If you made an error in the entry, you can request a delete:

Request delete

Employ cannot delete a log entry, however they can request a delete on the latest log entry

New Fuel Log

Change Password

Logout

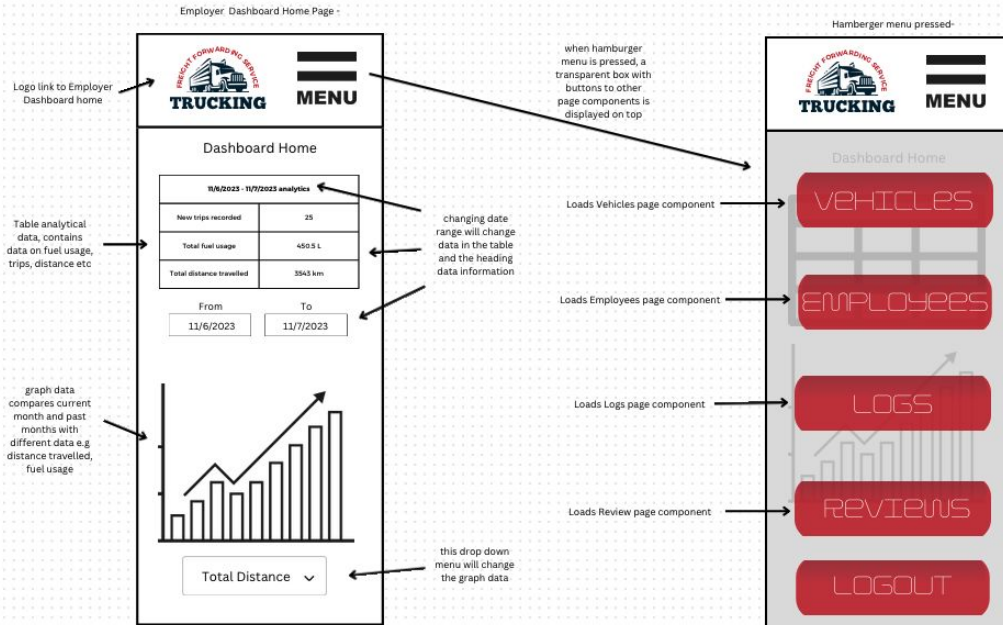
Back

Submit Entry

A form will pop up with "current password" and "new password" fields and a Reset button

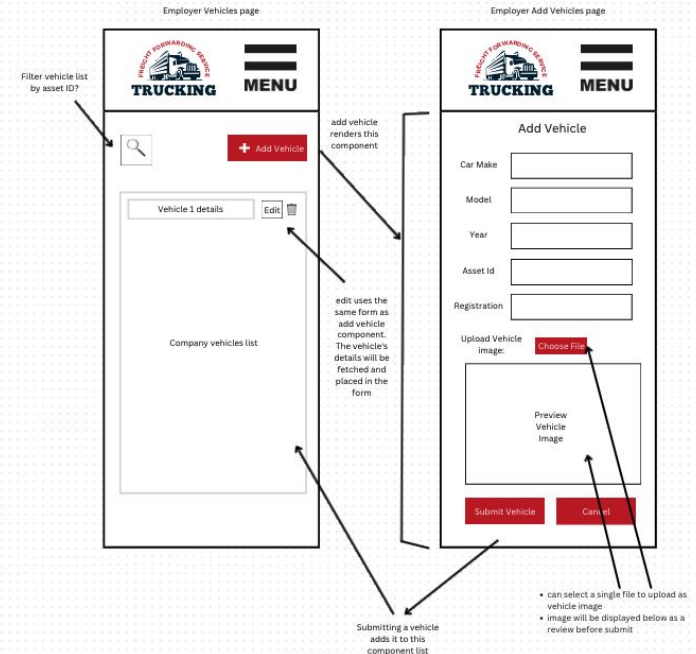
Mobile Wireframes cont.

Employer dashboard page components



The employer home page was chosen as the page which displayed the analytical graphs and data. Since one of the main features of this application is to do so, it was decided that the reports should be the first thing that's seen and not displayed on a separate page. This could also be expanded into its own page once the data grows and allows for more detailed reports, while leave a summarised report on the home page.

Employer vehicle page components



Mobile Wireframes cont.

Employer review page components

Employer Review deletion page

Log delete request

Log id 1411
Employee id 124124
22/07/2023

Log details

Accept Reject

Log id 1422
Employee id 145554
25/07/2023

Log id 1455
Employee id 124155
28/07/2023

Log id 1442
Employee id 124124
29/07/2023

Clickable log review summary that reveals hidden div with log details

<https://stackoverflow.com/questions/70323926/react-add-class-to-one-element-from-list-after-clicking-on-button>

This will be individual components rendered using the map method

Employer Logs page components

Employer Logs page components

Log records

Enter Log ID here

Log id 1411
25/07/2023

LOG DETAILS HERE

Log ID

Log list

Filtering list by Log ID

List of Log records

Pressing list brings up a box in front with log details

Pressing trash icon brings up box for confirm deletion of log

Employer employee page components

Employer employee page

Filter employee by ID

TRUCKING MENU

Search

+ Add Employee

ID: 12444 John Smith [edit]

ID: 12466 Bobby Ch8 [edit]

Employee list

New Employee

Full name

Employee ID

Password (min 8 characters)

Submit

When add employee button is provided, a box appears in front of employee list where a new employee details can be added and submitted

Update Employee

Full name

Employee ID

Update

Employee list

When an edit is provided, a box in front that displays the employee's name and id and able to confirm to delete details. If confirmed, details of employee are removed

Delete Employee

Full name

Employee ID


Confirm

Employee list

When an delete is provided, a box in front that displays the employee's name and id and able to confirm to delete details. If confirmed, details of employee are removed

Tablet Wireframes

Login Page



Company Fuel Log


Employee ID:


Password:

LOGIN

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Employee Home Page








John Smith

Current Monthly Report

Fuel Total: 300 L

Vehicles used: 2

Log Entries: 5



Log record form

New Log Entry

Select vehicle:


Asset ID:

Reg No:

Make:

Model:

Year:



Vehicle Image


Current ODO:

Added Fuel:

Log Entry Preview

Back




Submit Entry



Log entry added successfully!

If you made an error in the entry, you can request a delete:

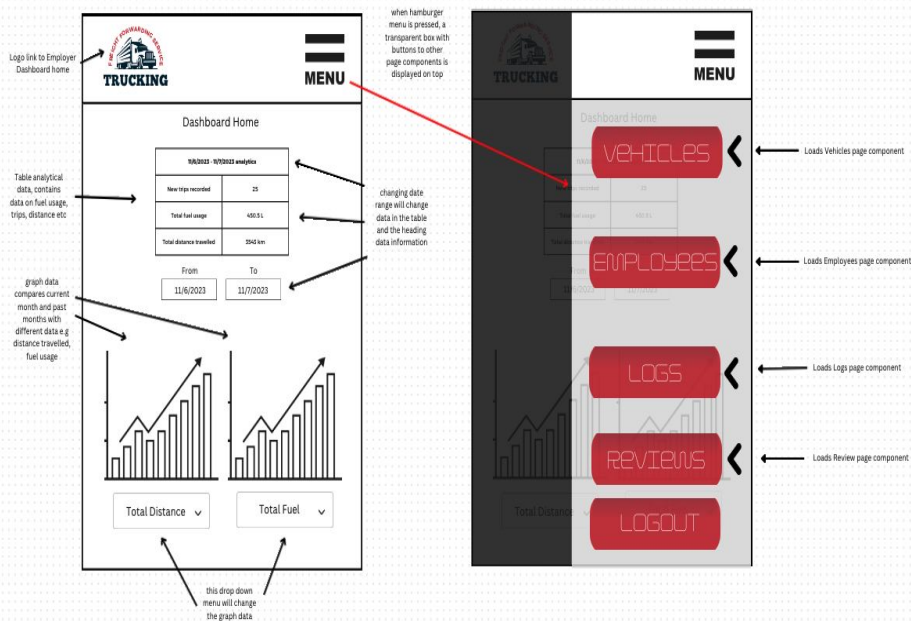
Request delete



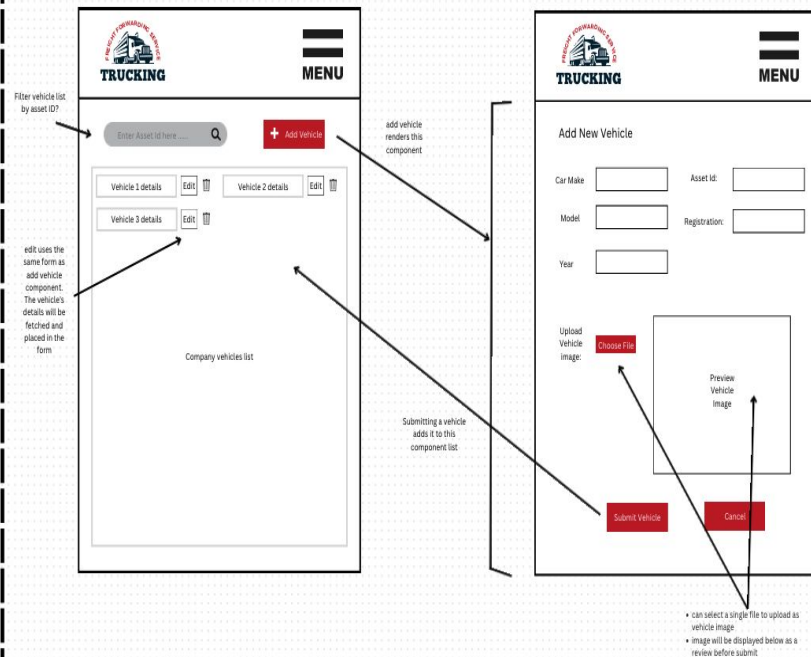
Tablet Wireframes cont.

In tablet view, layout mostly the same except more information displays on dashboard and vehicles displayed across two columns

Employer dashboard page components

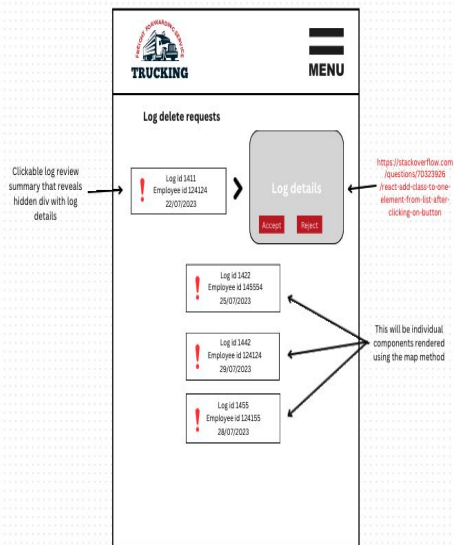


Employer vehicle page components

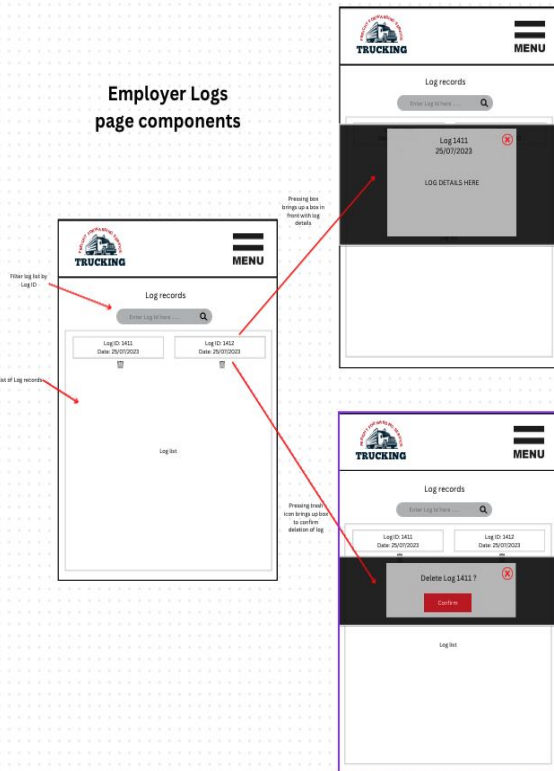


Tablet Wireframes cont.

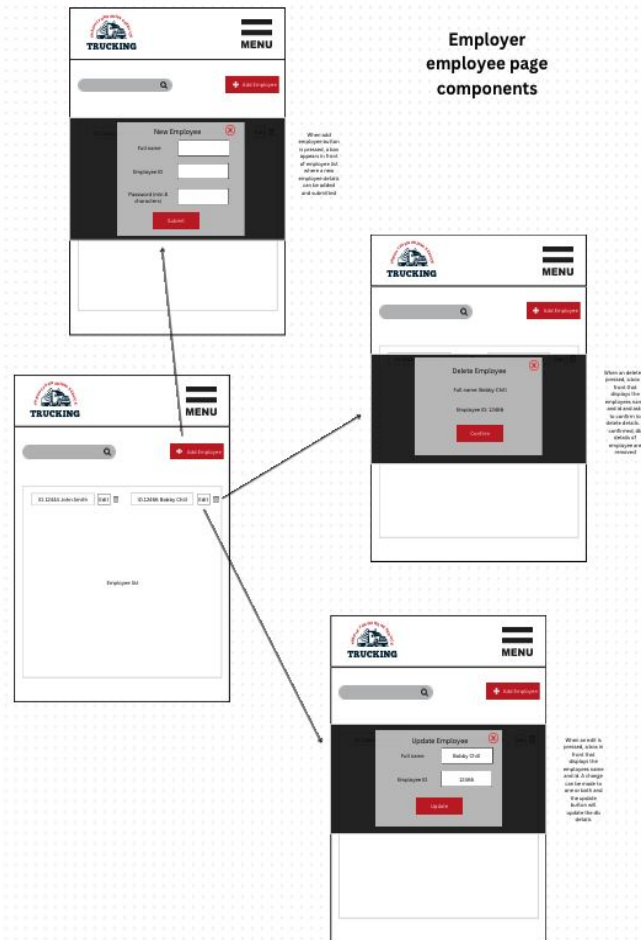
Employer review page components



Employer Logs page components




Employer employee page components



Desktop Wireframes

Login Page



Company Fuel Log


Employee ID:

Password:

LOGIN

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Employee Home Page



JS

John Smith

Current Monthly Report

Fuel Total: 300 L

Vehicles used: 2


Log Entries: 5

Back Entry

Logout

Logout

Log record form



New Log Entry

Select vehicle:

Current ODO:

Added Fuel:

Asset ID:

Reg No:

Make:

Model:


Year:

Vehicle Image

Log Entry Preview

Back

Submit Entry



Log entry added successfully!

If you made an error in the entry, you can request a delete:

Request Delete

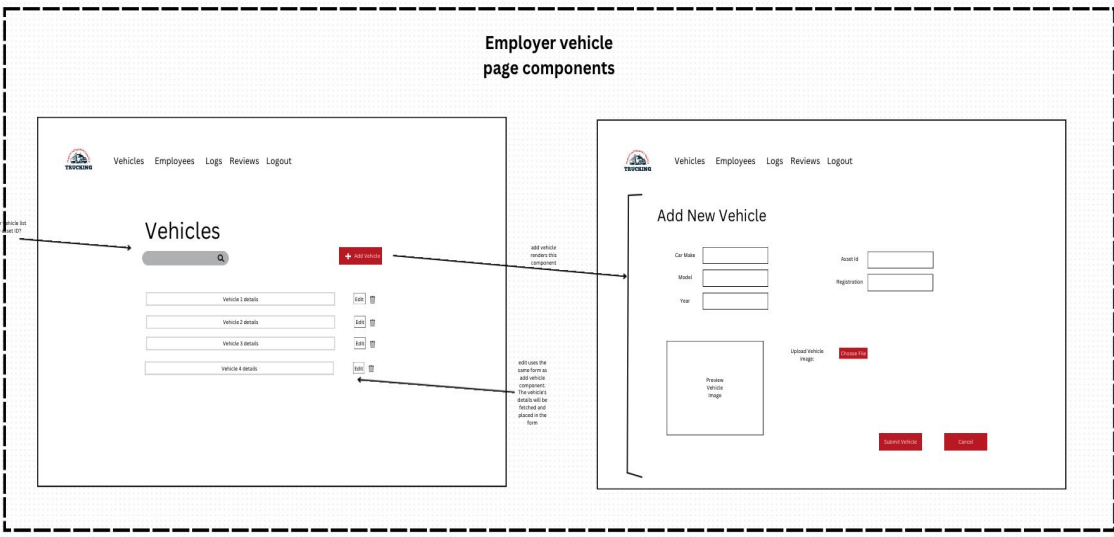
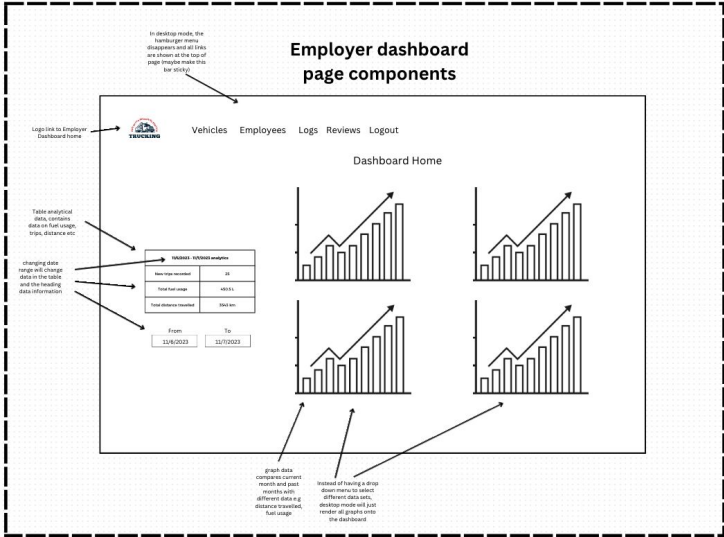
Back Entry

Logout

Logout

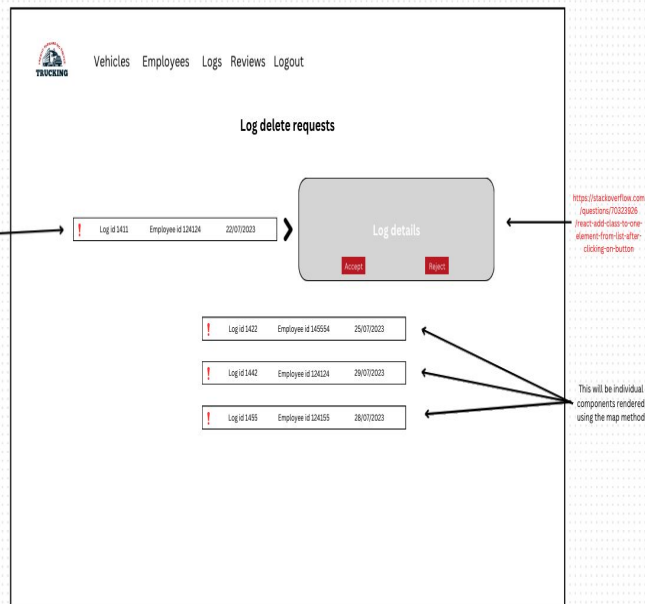
Desktop Wireframes cont.

In desktop mode, hamburger menu disappears and instead displays all link at top side by side. Dashboard can also display all graphs in desktop mode

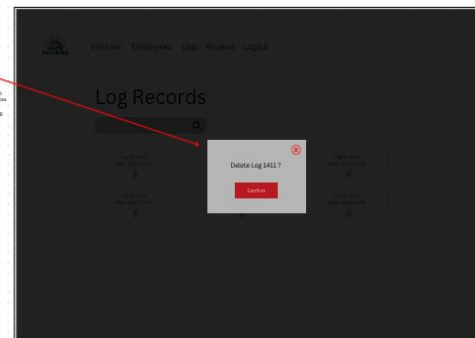
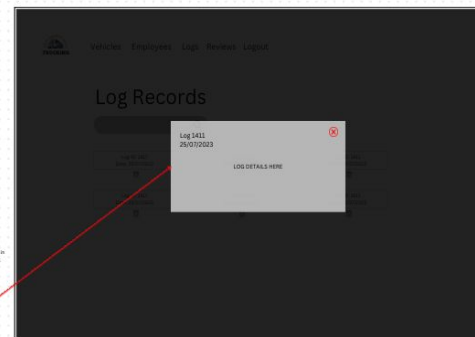
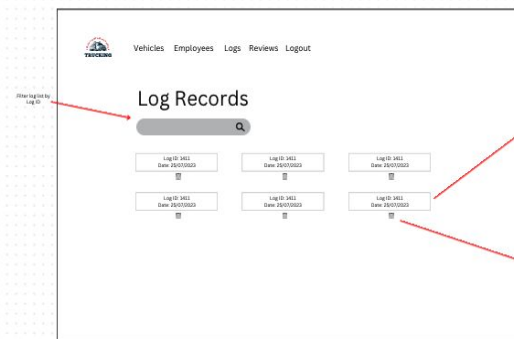


Desktop Wireframes cont.

Employer review page components



Employer Logs page components



Desktop Wireframes cont.

