Trip Management System [Group 16]

❓ About

This application aims to extensively manage Vehicles and analyze Trip attributes associated with users of the system. Present applications facilitate the calculation of fuel economy through manual means. This would be a tedious and overwhelming task for a vehicle owners with multiple vehicles.

Therefore we have proposed an application that manages information about the vehicles of users and their attributes. In addition the application allows Vehicle Owners to share information about future trips so that Users of the application can “carpool” if they plan on travelling along the same route.

👷‍♀️ Technology Stack

The application is a web-based system that’s built with Spring Boot, HTML, CSS and MYSQL.

We leverage the Model, View and Controller (MVC) architecture through Spring Boot as it facilitates the development of “easy to create stand-alone, production-grade applications”.

Spring Boot offers the following advantages:

🖥️ Easy deployment

🖥️ Simple scalability

🖥️ Compatible with Containers

🖥️ Minimum configuration

🖥️ Lesser production time

The application utilizes HTML5 and CSS3 to render interactive webpages to users.

All data relevant to the system is stored in a Relational Database. We have primarily used MySQL workbench to access data.

🏹 Objectives

- [ ] Enable users to access information relevant to their vehicles
- [ ] Allow users to input Fuel Economy information for each trip
- [ ] Facilitate Carpooling by allowing Vehicle Owners to schedule Trips and Users to book Trips

👥 User personas

👴 Vehicle Owner

👱 Rider / Ride Sharer / User (These terms are used interchangeably)

📈 Impact / Metrics

✅ Fuel Economy

✅ Distance Travelled

✅ Fuel Consumed

✅ Trip Cost

📜 Some history

Present applications, though designed for today's challenges do not eliminate all issues and discrepancies encountered by user while booking trips. In addition, these applications do not support "Ride Sharing" wherein users who are possibly travelling from dissimilar Sources, carpool to either reach a common Destination or one that's along the way to the final Destination.

The Unique Selling Point (USP) of this application is to enable users to "Carpool" with similar users and Vehicle Owners to primarily improve cost efficiency and reduce fuel emission.

🗓️ Releases

Name	Value it adds	Scope	Status	Completed date
Trip Management System V1.0	Data Management & Informed Governance	Vehicle Management & Carpooling	IN PROGRESS	05 Apr 2022

🔗 Relevant Links

1. https://git.cs.dal.ca/courses/2022-winter/csci-5308/group16

🔗 References

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[3] "Build and deploy · Platform.sh Documentation," *Platform.sh User Documentation*. [Online]. Available: https://docs.platform.sh/overview/build-deploy.html . [Accessed: Mar. 19, 2022]

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[4] M. Ardivan, "Spring Boot Setup Heroku + Gitlab with Continuous Integration and Deployment," *Medium*, Apr. 03, 2019. [Online]. Available: https://medium.com/@muhammadardivan/spring-boot-setup-heroku-gitlab-with-continuous-integration-and-deployment-9ed4dc21e557 . [Accessed: Feb. 10, 2022]