An SaaS Platform For Ridesharing,Taxi Cab,Food Delivery And Shipping

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Abstract

Riders, An SaaS Platform is a ridesharing platform that assists pedestrians and overall aims to get improve traffic flow in modern cities. This platform is used in daily transportation and commuting environments to increase communication between drivers and passengers to achieve efficient and safe ridesharing activities. By using modern and open source packages, the platform is upgradeable and easy-to-use.

Introduction

Peer-to-peer ridesharing is a growing area of transportation that has gained popularity with the widespread usage of smartphones and online payment systems. After World War II, ridesharing idea started as “car-sharing clubs” in America, with government supports regarding workplace and regulations, alternative transportation and commuting methods surfaced. In early 1990’s these alternative methods such as ridesharing didn’t gain much popularity, caused by drivers’ and passengers’ communication problems, drivers’ unsafe driving habits, and issues regarding payment. Recent technological advancements in IT fields made these issues irrelevant, smartphones and online platforms are tools most people use almost constantly. Several companies has made use of this vacancy in transportation methods, and peer-to-peer ridesharing applications grew in popularity. These applications removes communication issues between drivers’ and passengers’, using cutting-edge algorithms for vehicle routing and passenger stops they provide optimized routes and solves disputes with their feedback systems and mobile payment options.

Solution

We have decided the best solution to these communication and organizational problems is a platform that is easy-to-use and readily available. Thus, we have concluded the best approach would be a mobile application to be used by drivers and passengers; and a regulatory server to best match users according to their needs and preferences. We developed a platform that consists of two main parts, a server to manage transactions and match the users for ridesharing and transportation activities, and a client that runs on modern mobile devices like Android and iOS. Users should register and login to the system with their email accounts, and they can immediately start using the platform. The platform has two main interfaces, one for passengers, one for drivers. Drivers should identify themselves with their National Identification Number. Switch between these interfaces is not possible, an account can be used in only that interface.

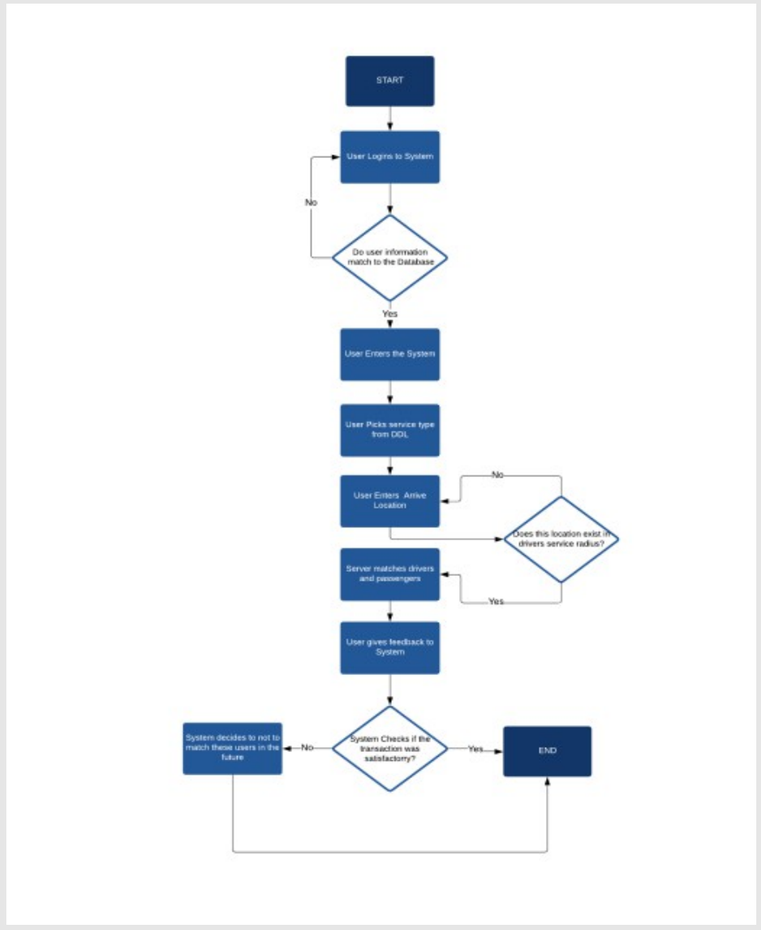

Figure 1 – User Interface

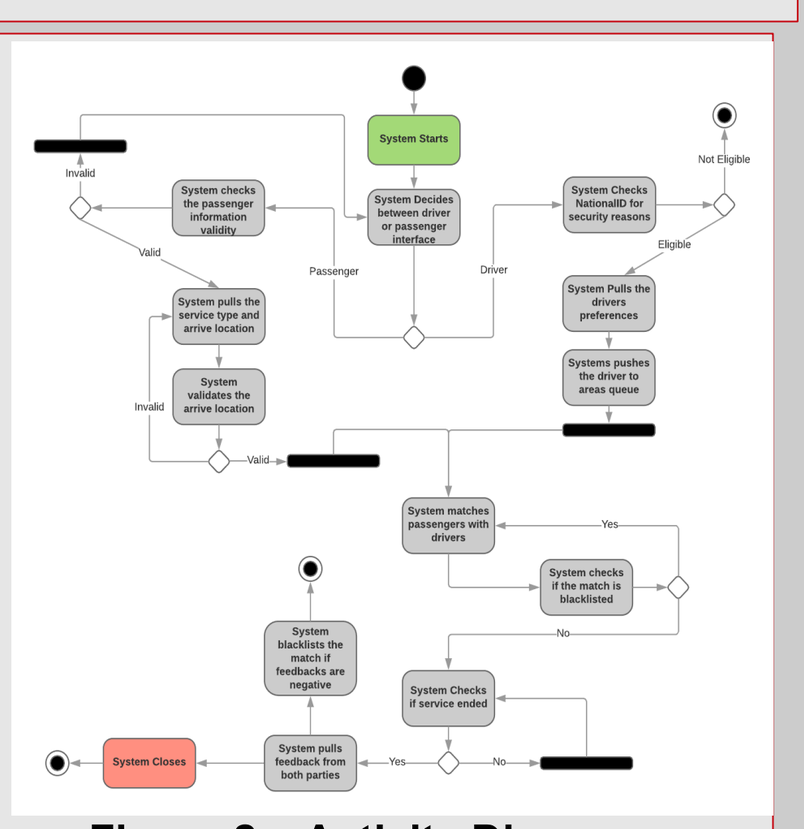

Figure 2 – Activity Diagram

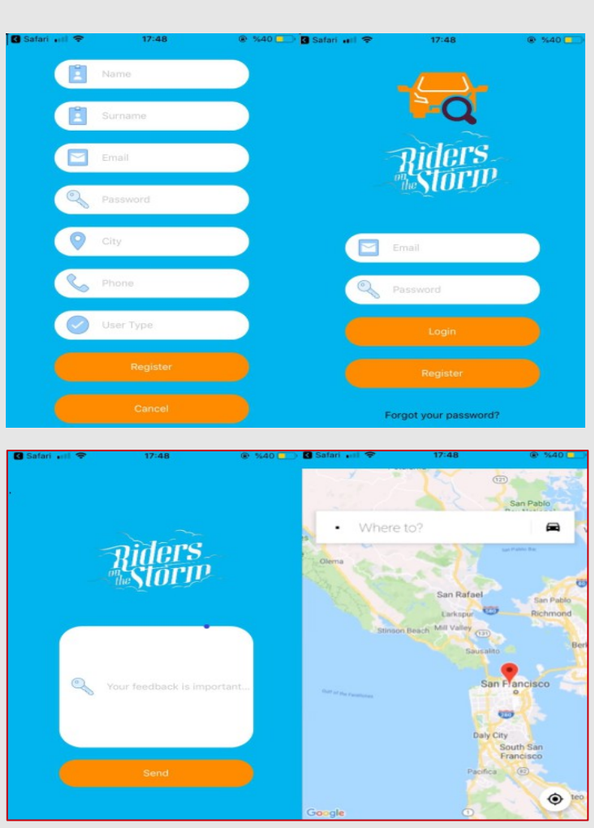

Figure 3 – Finished Product

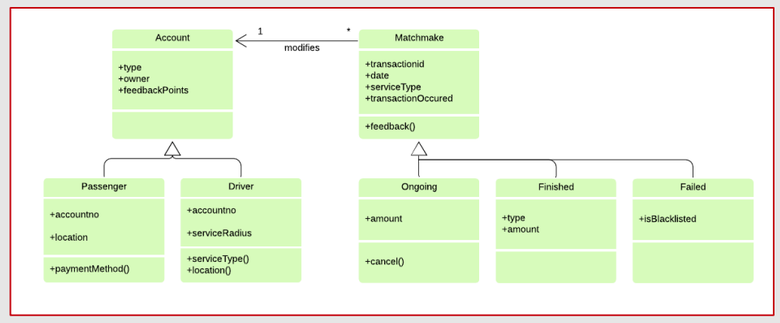

Figure 4: Class Diagram

Results & Conclusion

In the light of the developmental analysis that we have made, we have concluded that the popular node.js runtime and React Native framework are best suited our needs, after we have planned a meeting with out stakeholders, our requirements and design documents were made, we decided our chosen frameworks are suitable. The general setback that we encountered was the lack of example. Ridesharing is a relatively new activity, so designing and prototyping was done by our part. However we got help from our advisor, and done extensive research on the subject, and we have managed to conclude the project to its finish. We believe we have developed a platform that is cost-effective, upgradeable, and easy-to-use.

Acknowledgement

We are grateful for guidance we have received from our advisor Assist. Prof. Abdül Kadir Görür. The help we received from them was a great asset to improve this project.

Our Team