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An Algorithmic Approach to
Find the Optimal Transportation Method
in Sri Lanka

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Abstract

There are multiple methods of ground transportation available for people. Trains, cable carts, Buses, E-hailing applications, and many more. All these services help the users to travel from one place to another. But because most countries have more than 3 types of transportation services available for the user it will be a bit of a challenge to find the best combination of rides or ride to get the user to the destination faster or cheaper. The purpose of this document is to find existing solutions to this problem and review them. Before we start reviewing the below paragraphs will give a more in-depth explanation of what the problem is.

E-hailing Applications was one of these innovations that made people's lives much easier. This application allowed the users to order transport services using the user's smartphone and allows anyone who has a vehicle to become a driver and make some extra cash while going home. “Travis Kalanick says Uber has 40 million monthly active riders” (Travis Kalanick 2016). The application is available worldwide. that said today there are more than 100 plus E-hailing applications out there. All competing to become the best in their respective countries. As such Sri Lanka also has around 10 E-hailing Applications.

There are lots of ground public transportation services given to the citizens by their country's government. Some of this service are buses, trains and simpler services. Most public services have a pick-up and a drop off location. Because of this, the user won't be able to specify a location to get off at but in return, this service is much cheaper and sometimes faster. Because of this, the user can combine this service to get to a specific location much faster. For example, since trains are faster than buses the user can plan to take a bus to the train station and catch a train to the nearest station to the destination. This is precisely the matter what the solution promoted this document will help the user do. The application will plan the rides for you and display the most optimal combination of transportation method.

This research is conducted to explore the perception of selecting optimum transportation of Sri Lanka. Most countries that have lots of methods of transportation like the UK they have applications to support the users to find the optimum way of transportation. The optimum way of transportation is the fastest and cheapest way for a person to get from one location to another, using all or some of the available transportation methods.