Project Proposal for Social Computing course

Route Finder

OVERVIEW

This project involves scheduling and routing vehicles to enable subscription based shared transportation. Users in urban areas subscibe and register their pickup-drop location and time for their monthly travel. And we find out and assign a vehicle based on public traffic in that route, customers overlapping in the same route, compatible time, profitability of that route and capacity of our vehicle already plying in that route. Think of school bus scheduling, but public users get added/removed on monthly basis.

What is addressed as part of our Project ?

- Finding an efficient algorithm to schedule and route vehicles in order to increase profits from the shared transport services provided.

Why is the question important ?

- Most of the urban areas today suffer from serious traffic conditions, which jeopardizes their daily life by taking huge chunk of the valuable time in traffic and also added to it the frustration. Although reduction of traffic cannot be achieved in an overnight solution, but public transport can highly reduce this traffic. But last mile connectivity and irregularity in bus availibility is the primary reason to not use the public transport. On similar lines to Public transport, we have developed a bussiness idea as discussed in overview above which solves most problems and also add reliability and trusts in using the services.

- Associated with traffic, there is pollution. In the coming future the air would reach dangerously hazardous level due to traffic which could cause problems to health, ecology, flights cancellation. So this project aims to tackle to reduce traffic, and churn out profits if implemented.

- For someone who doesnt own private vehicles, he finds it diffcult to be on schedule, when especially his workplace and residence is far apart (like most of IT employees in Bangalore). This project would largely solve his problem.

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Final Deliverables :

- Algorithm that finds profitable and efficient vehicle capacity, route, time when the input given is set of pickup/drop location along with time, traffic and city map.
- Working portal where users can register and add their route information and get our services.

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