

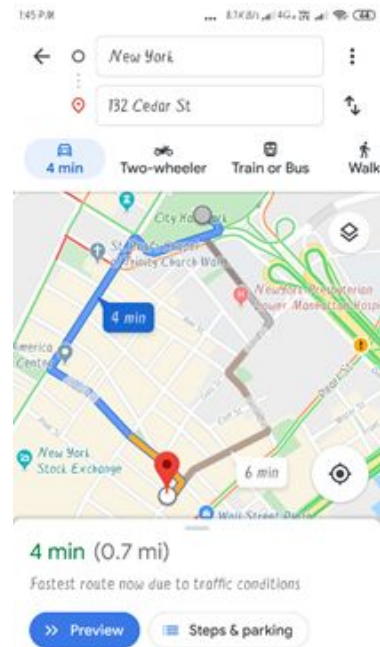
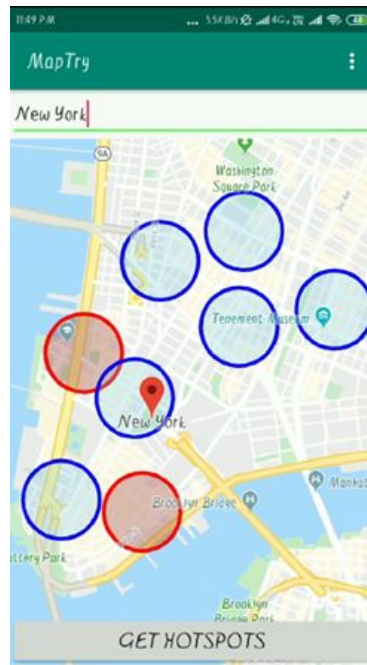
**SHRI RAMDEOBABA COLLEGE OF ENGINEERING & MANAGEMENT,
NAGPUR
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

ASSESSMENT OF THE PROJECT 2019-20

Title of the Project	FARE OPTIMIZER
Student Names	1. Krunal Pande 2. Kunal Khadkeshwar 3. Nachiket Satpute 4. Navin Rathi 5. Pranshu Singh
Semester & Shift	V (Shift-2)
Guide Name	Prof. V. K. Bongirwar

Criteria	
1. Classification and Technology	K-Means Clustering, Random Forest Regressor, Firebase, Android
2. Project Objectives	Develop an application to address the financial crisis of cab drivers to boost sales and productivity, by analysing and predicting outcomes based on previous dataset.
3. Methodology and Implementation	<p>Cab Drivers new to a city have difficulty in finding new customers, since they are unaware of the popular areas where they could get potential customers. The same problem is also faced by the consumers, who sometimes are unable to get cabs in their area. The factors to consider for the problem are pickup latitude, pickup longitude, passenger count and the drop-off coordinates.</p> <p>a. <u>Front end:</u> The application was implemented using Android Map API and displayed clusters using Firebase.</p> <p>b. <u>Back end:</u> This part will consist of implementation of ML Algorithms:</p> <ol style="list-style-type: none"> 1. K-Means Clustering: Predicted the cluster hotspots using previous data.. 2. Random Forest Regressor: Predicted fares on the obtained clusters to predict accurate fares 3. FireBase is used to store the data so that both python script and android application can access it and compute accordingly. 4. Python Script acts as a server which listens to user request from android application.
4. Project Outcome	The application was implemented to display cluster hotspots on Google map API based on user provided location. The application predicted fare for these clusters and predicted fares for the hotspots.
5. Success of the project and Industry Involvement	There lies an abundant future scope to the project for improvements. For example, the regression algorithms can be changed to suit the requirements according to the city. The city can be changed and an improved and accurate dataset can be used.

The project can be implemented by cab aggregators in India to improve driver productivity and efficiency. The individual app can be deployed to the App store for mobiles.



Prof. V. K. Bongirwar
Project Guide

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