

# Coursera Capstone Project : Applied Data Science

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## 1 Introduction

The Kolkata Suburban Railway is a suburban rail system serving the suburbs surrounding the city of Kolkata. Railways such as these are important and heavily used infrastructure in India. It is the largest suburban railway network in India by track length and number of stations. It has 393 stations and a track length of 1,332 km. The suburban railway operates 1497 EMU services carrying 3.5 million (35 lakhs) people daily. It runs from 4 a.m to 2 a.m in the night.

In terms of the fare prices, as per the 2013 Indian Railway Budget, the railway increased the Kolkata suburban ticket fare by eight paise per kilometre, although the railway ministry has hiked it by two paise per kilometre. The number of slabs has also been reduced to four—Rs.5 (7.2 US cents), Rs.10 (14 US cents), Rs.15 (22 US cents) and Rs.20 (29 US cents)—from the eight slabs earlier. Also, ticket denominations have been rounded off to multiples of Rs.5 (7.2 US cents). As per the revised slab, a person traveling up to 20 km will have to pay Rs.5 (7.2 US cents), between 21 and 45 km Rs.10 (14 US cents), between 46 and 70 km Rs.15 (22 US cents) and between 71 and 100 km Rs.20 (29 US cents).

Train stations are ideal locations for small businesses to set up shops, because they are hubs of human interaction where hundreds or even thousands of people day and night come and go. Each person in this flow of foot traffic is a potential customer who might need a specific item or purchase on impulse while waiting for a train. To succeed with retail at a train station, one must provide an accessible and affordable shopping experience offering merchandise or services that travelers might not quickly find elsewhere en route while travelling.

## 2 Business Problem

Train passengers as well as station and train employees need to eat breakfast, lunch, dinner and snacks. Although food sales are forbidden in some railway stations, many do offer merchants the opportunity to sell food. Foods that attract busy people on the go include egg sandwiches, fries, pizza, burgers, microwaveable or cold prepared meals. Beverages such as coffee, tea, wraps, bottled water, soda and juice also sell well. Thus, the main objective of the project will be to find ideal spots in the city where fast food retail chains can be put up, aiming at the above demographic, thereby helping the owners of the outlets to extract maximum profits out of them.