**Project Report**

**Location Based Revenue Prediction**

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# **Introduction:**

In recent times, for any restaurant to gain successful opening along high revenues, it is imperative to choose a location that fits the culinary tastes of their neighbourhood. Similarly, large restaurants chains like McDonalds, Dominos, KFC etc. looks for various parameters before choosing the location for their next franchise. In this context, the data-driven decision making can be a boon to these restaurant chain’s management. It is possible to identify the next location of the franchise with high potential revenue based on the revenue of the franchises as existing location.

In this project, I propose a solution which predicts the revenues of the pizza restaurants based on the features of the locality in which the restaurant is set to open.

# **Data Required:**

For this project, I will use to Foursquare API to get the location-based data and explore the various venues available nearby the restaurants. For the purpose of proof of concept (POC), I will manually populate revenues of different venues to train the model. These revenues will be randomly generated and may differ considerably if the project is implemented on a real-world dataset with actual revenue figures.

I used the Datafiniti dataset from Kaggle containing information about the pizza restaurants in USA such as address, location data, menus, average price of pizza etc. I used foursquare location API to retrieve nearby venues around a restaurant.

Link to the dataset: <https://www.kaggle.com/datafiniti/pizza-restaurants-and-the-pizza-they-sell>

I will populate a dataframe consisting of various venue categories around a restaurant along with its randomly generated revenue. I will then use regression models to train and make predications based on the above data.