

# Capstone Project: Coursera Applied Data Science

*Open a Supermarket in Greater Manchester*



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- The map illustrates the 100 constituencies of Greater Manchester and its surrounding areas. The constituencies are color-coded by region: Lancashire (orange), Blackburn with Darwen (light blue), Rochdale (light purple), Calderdale (light green), Oldham (light yellow), Wigan (light orange), Bolton (light green), Bury (light purple), Salford (light blue), Trafford (light yellow), Tameside (light green), Stockport (light orange), Warrington (light blue), Cheshire (light green), and Derbyshire (light yellow). Major towns and cities are marked with black dots and labeled. The map also shows the M6 motorway and the Manchester Airport.





# Introduction

- ▶ Supermarkets are the most important aspect of food production and distribution as they are the interface between supply and demand. It increase local consumption and also provide food with lower prices to residents.
- ▶ The success of opening a supermarket hinges on various aspects, one of the most important, is to choose the ideal location.

# Business Issue

- ▶ This project aims to use machine learning techniques to find the best place to open a shopping mall in Philadelphia.
- ▶ The target people are businessmen, investors or even local government, who want to make profit via building a supermarket. It will also benefit residents.

# Data

- ▶ Neighborhood Information
- ▶ Geographic Coordinates
- ▶ Venue Data
- ▶ Existing Supermarkets



# Data Source

- ▶ The neighborhood data is available on [https://en.wikipedia.org/wiki/Category:Areas\\_of\\_Greater\\_Manchester](https://en.wikipedia.org/wiki/Category:Areas_of_Greater_Manchester)
- ▶ We use Foursquare API to access venue data, coordinates and other data.