## **COURSERA IBM DATA SCIENCE CAPSTONE ASSIGNMENT**

## WHICH NEIGHBORHOODS OF TORONTO LACK SHOPPING MALLS

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## **SECTION 1 – Problem description**

A shopping mall (aka mall, shopping center or supermarket) is a North American term for a large indoor shopping center, usually anchored by department stores (Wikipedia, 2020).

In recent years, the number of "dead" malls increased significantly in the early 21st century because the economic health of malls has been in decline, as identified by high vacancy rates.

Unfortunately, this is not only e-commerce and online shopping that caused such a problem. Some real estate experts say the "fundamental problem" is a glut of malls in some parts of the country creating a market that is "extremely over-retailed" (Schwartz, Nelson D. 2015. "The Economics (and Nostalgia) of Dead Malls". *The New York Times*). On the other hand, there are many neighborhoods, even in large cities, which do not have a shopping mall within a distance of a few kilometers.

In this capstone project, I used available data to study the shopping malls distribution in the city of Toronto to see which part of the city have too much and which parts are in lack of shopping malls.

This research will be of value to the municipalities of the neighborhoods of Toronto as well as to real estate developers.