## CHICAGO NEIGHBORHOOD ANALYSIS PROJECT

The Development Company

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## 1. Introduction/Business Problem

A new Chicago-area Developer, The Development Company (TDC), is looking to determine which upand-coming neighborhoods are likely to experience enough price appreciation to support newconstruction residential housing.

Demand for new housing units in Chicago is high as new residents are moving in from across the country, looking for spaces with modern amenities & modern finishes. The supply of these types of units is low, leading to bidding wars and trendy neighborhoods on the Northside of the city experiencing rapid price appreciation. TDC would like to work in the historically underserved South and West areas of the city, but they need to understand the underlying market dynamics in these areas.

## 2. Data Requirements

To understand the underlying market dynamic in the Chicago South and West side neighborhoods, TDC will need the following data:

| Data   | Link to Data   | Use Case to Solve Problem   |
|--|--|---|
| List of Chicago<br>Neighborhoods   | https://en.wikipedia.org/wiki/Lis<br>t_of_neighborhoods_in_Chicago       | This data source will allow TDC to obtain a complete listing of all the neighborhoods in Chicago, with their associated Community Areas (known in other cities as Boroughs), to conduct analysis activities on the neighborhood level.  |
| Google<br>Geocoder<br>Platform -<br>Neighborhood<br>Latitude &<br>Longitude Data | https://developers.google.com/<br>maps/documentation/geocoding<br>/start | This data source will allow TDC to identify the center of each Chicago neighborhood for map plotting and retrieval of nearby venues.  |
| FourSquare<br>Trending Venues<br>API   | https://developer.foursquare.co<br>m/docs/api                            | This data source will allow TDC to obtain data on venues in Chicago Neighborhoods with the most foot traffic. This will be used by TDC to perform clustering activities to determine if there are South and West side neighborhoods similar to the North side neighborhoods.  |
| FourSquare<br>Explore Venues<br>API  | https://developer.foursquare.co<br>m/docs/api                            | This data source will allow TDC to obtain data on venues in Chicago Neighborhoods that are closest to the center of the neighborhood for a given distance. This will be used by TDC to perform clustering activities to determine if there are South and West side neighborhoods similar to the North side neighborhoods. |

| Redfin Data  | https://www.redfin.com/blog/da | This data source will allow TDC to obtain       |
|--------------|--------------------------------|---|
| Center -     | ta-center/                     | insights into market activity occurring in      |
| Home Prices, |                                | neighborhoods that TDC is interested in gaining |
| Sales &      |                                | additional insights from, post neighborhood     |
| Inventory    |                                | clustering activity.                            |