Capstone Project:

Walking Tour

Data

The neighborhood categorization will group venues from a list provided by Foursquare. Foursquare stores data for venues which can be accessed using various API endpoints. The EXPLORE endpoint returns a list of venues near a specified location. The response of the EXPLORE endpoints provides the id, name, location, and categories for each venue matching the search parameters. Table 2 below outlines the EXPLORE parameters used in this project.

endpoint returns a list of venues within a given radius of a location that match the given parameters. The response of the SEARCH endpoint provides the id, name, location, and categories for each venue matching the search parameters. A category parameter can be included, which limits the results to the selected categories. Table 1, below, outlines the SEARCH parameters used in this project.

**Table 1**

|  |  |  |
| --- | --- | --- |
| EXPLORE Endpoint Parameters | | |
| **Name** | page1image24759472**Description** | **Value** |
| ll | comma separated latitude and longitude values for the location of the search | The latitude and longitude of the start location |
| radius | radius, in meters, from the desired search area | The radius will be calculated using the distance the user is willing to travel and the number of stops they want to make |
| limit | page1image5873248  number of results to return  page1image16322400 | The maximum number of results Foursquare returns is 50 |

To provide a better representation of how this EXPLORE data will be used, we can cover an example from the actual data.

**Table 2**

|  |  |
| --- | --- |
| **Example 2** | |
| **Name** | **Value** |
| ll | 40.491242 -79.903510 |
| radius | 2400 |
| limit | 1000 |

Based on this search criteria a list of all the businesses within 2400m of the given coordinates will populate for the neighborhood. This is shown below in Table 3.

|  | **Neighborhood** | **Neighborhood Latitude** | **Neighborhood Longitude** | **Venue** | **Venue Latitude** | **Venue Longitude** | **Venue Category** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **0** | Aspinwall | 40.491242 | -79.90351 | Randita's Organic Vegan Cafe | 40.490189 | -79.904924 | Vegetarian / Vegan Restaurant |
| **1** | Aspinwall | 40.491242 | -79.90351 | Esspa Kozmetika Organic Skincare | 40.489430 | -79.901057 | Spa |
| **2** | Aspinwall | 40.491242 | -79.90351 | Labriola's Italian Market | 40.488284 | -79.898610 | Italian Restaurant |
| **3** | Aspinwall | 40.491242 | -79.90351 | Burgatory | 40.489315 | -79.892910 | Burger Joint |
| **4** | Aspinwall | 40.491242 | -79.90351 | CC's Café | 40.493595 | -79.914514 | Italian Restaurant |

From this data, the code will categorize the businesses into distinct categories that will then be used to evaluate the neighborhoods.