

# Alternative Areas to Asheville, North Carolina

*IBM Data Science Capstone Project*



# Identify Areas with Lower Cost Housing

- Asheville, North Carolina (NC) has been a tourist destination since the middle of the 19th century
- In more recent years, Asheville has seen double-digit population growth since the 1990s and is commonly featured on lists of top destinations
- Due to this continued growth and demand, the cost of housing in Asheville is higher than most other areas in NC
- An analysis of businesses and venues was conducted to identify similar areas in NC with lower cost housing

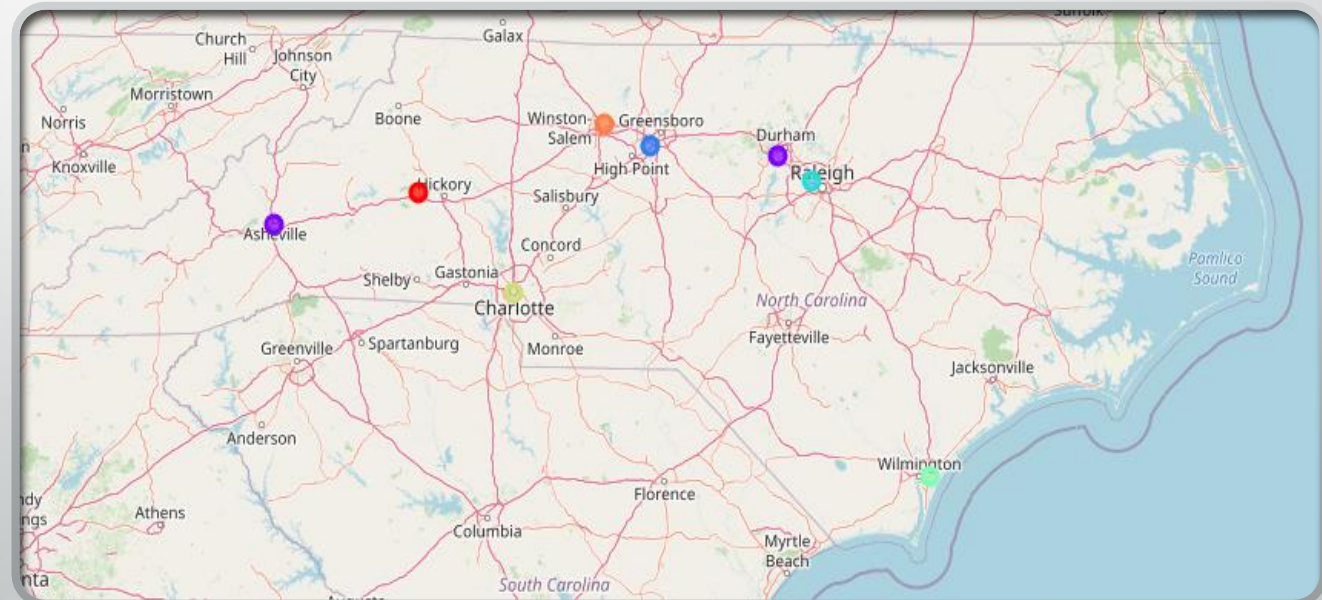
# Data Sources

- Business/Venue Data Source
  - Foursquare was chosen as the source of business/venue data due to its large dataset that is easily accessed via an Application Programming Interface (API)
- Housing Price Data Source
  - The Federal Housing Finance Agency's House Price Index (HPI) was used to determine how the price of housing compares across US Census Bureau Metropolitan Statistical Areas (MSAs). HPI data from the first quarter of 2021 was used for analysis as this was the most recent data available.
  - There are several MSAs listed for NC, however the following subset was selected for comparison: Asheville, Charlotte-Concord-Gastonia, Durham-Chapel Hill, Greensboro-High Point, Hickory-Lenoir-Morganton, Raleigh-Cary, Wilmington, and Winston-Salem.

# Results

- K-Means Clustering
- Durham-Chapel Hill was the closest neighbor to Asheville in terms of businesses and venues with lower cost – price index of 246.64 compared to 332.44

MSA_NAME	MSA_ID	PRICE_INDEX	Cluster Labels
Asheville, NC	11700	332.44	1
Wilmington, NC	48900	266.57	4
Charlotte-Concord-Gastonia, NC-SC	16740	257.81	5
Durham-Chapel Hill, NC	20500	246.64	1
Raleigh-Cary, NC	39580	236.30	3
Hickory-Lenoir-Morganton, NC	25860	217.67	0
Winston-Salem, NC	49180	196.06	6
Greensboro-High Point, NC	24660	190.91	2





# Conclusion and Future Direction

- The results reveal that for anyone wanting to purchase a single-family home in Asheville should consider looking in the Durham-Chapel Hill area where prices are lower, but business/venues offer similar products and services.
- While this analysis focused on business/venues, additional research should take into consideration other attributes including, but not limited to, geography, climate, etc.