

Predict House Values for Denton County

Coursera Capstone

Business Case

Background

- Every Year Denton County appraised values of all the houses within its jurisdiction. A homeowner needs to pay property taxes which are 2.26% of the appraised value of his/her house.
- Example: If my house is appraised at \$300,000 then I will pay $\$300,000 \times 2.26\% = \$6,780$ annual taxes.

Problem Statement

- If the appraised value of the house increases by \$20,000 from 2018 to 2019 then the homeowner will have to pay an additional \$450 in taxes. This is extra money that he may not have planned for in his budget.

Target Customer

- Home owners whose appraised value has increased in 2019 and they think that their appraised value should be lower than what the county says. They need supporting data on the value of similar homes nearby to argue their case with the county.
- Target customers can also be home owners who want a tool to predict what their home value would be in 2019 so they can plan for it ahead.

Data Sources needed

1. Denton County open dataset “County Parcels”

Link: <http://data1-dentontxgis.opendata.arcgis.com/datasets/county-parcels/data>

Sample: (replaced owner names and address with ****. Only a few fields included here.)

<u>OBJECT</u> <u>ID</u>	<u>LAND</u> <u>SQFT</u>	<u>LIVING</u> <u>AREA</u>	<u>SITUS</u>	<u>OWNER</u> <u>NAME</u>	<u>ADDR</u> <u>LINE2</u>	<u>CITY</u>	<u>STATE</u>	<u>ZIP</u>	<u>LEGAL</u> <u>DESC</u>	<u>YR</u> <u>BLT</u>	<u>APPRAISED</u>	<u>TOTAL</u> <u>LAND</u>	<u>TOTAL</u> <u>PROP</u>
1	15008	1547	****	****	****	KRUGERVILLE	TX	76227	TIMBER MESA BLK C LOT 5	1986	131976	25656	131976
2	21710	0	****	****	****	KRUGERVILLE	TX	76227	COUNTRY ESTATES 2 BLK J LOT 3	0	3039	3039	3039

2. Four Square API data: Currently its location data is the most comprehensive out there, and quite accurate that it powers location data for many popular services like Apple Maps, Uber, Snapchat, Twitter and many others. We will use Four Square data to explore popular venues near the target neighborhood that we are trying to predict prices for.