

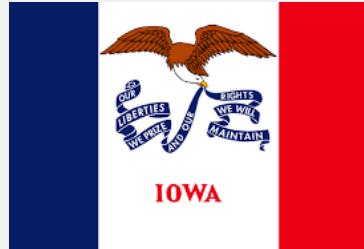
LOCATION, LOCATION, LOCATION: PREDICTING HOME PRICES IN AMES, IA

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GA DSI Immersive: Project 2

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THE TOWN OF AMES

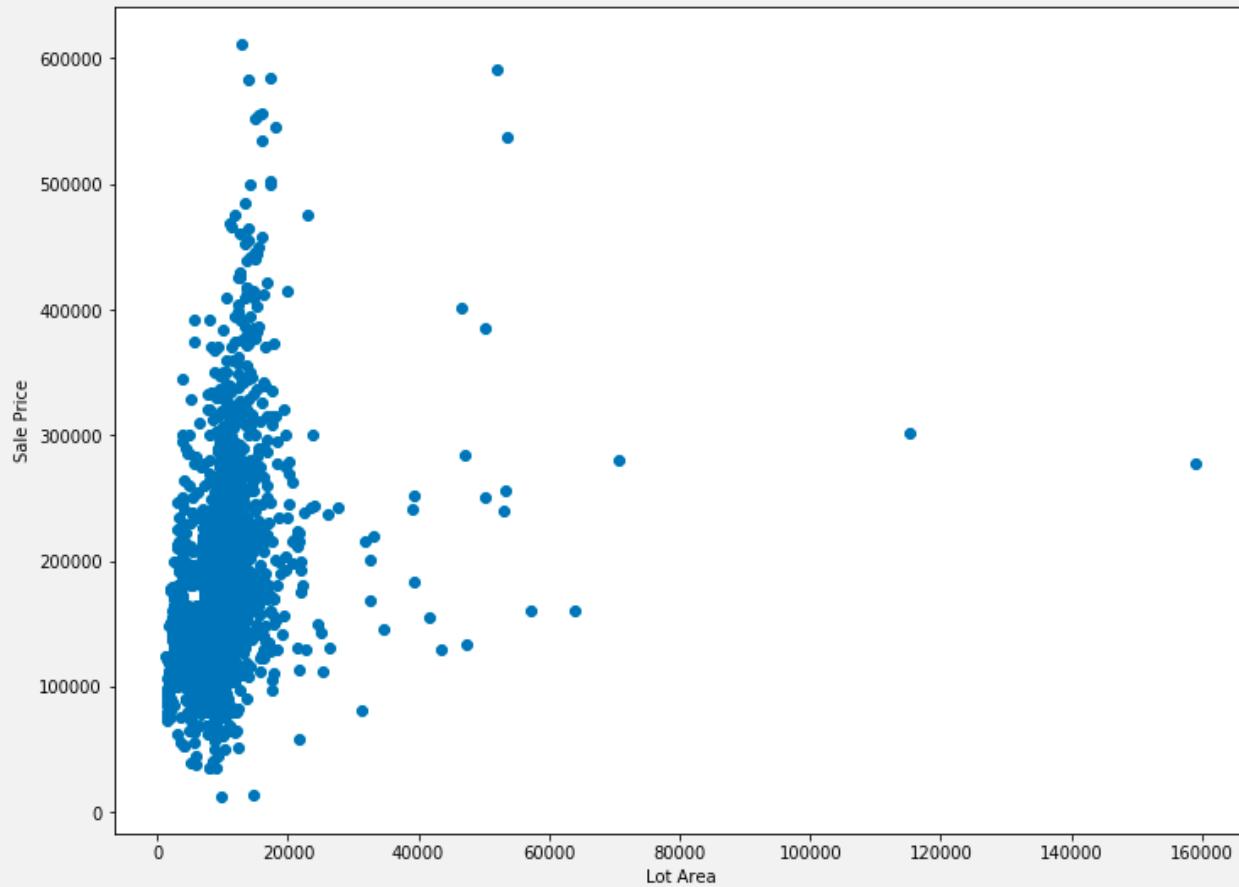


- Population: 66,000
- Home of Iowa State University as well as several Department of Agriculture sites, including the largest federal animal disease center in the United States



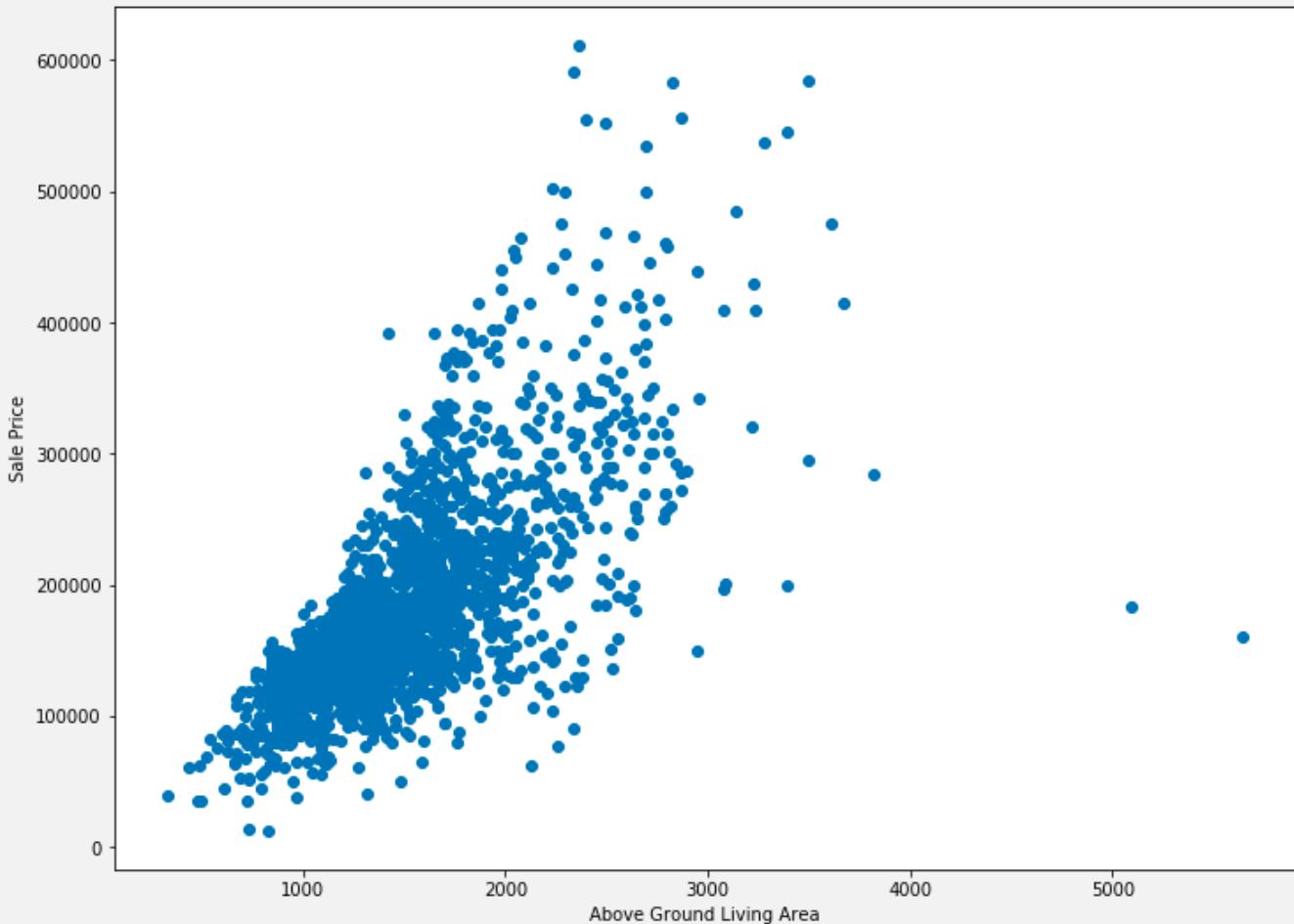
A BRIEF NOTE ON REAL ESTATE

- Remember that the land value and lot size factor in to the final
- More land = BIGGER HOUSE but not all land is created equal -location matters!
- As we can see in the graphic to the right, there is not a purely linear relationship between larger lots and a high sale price, telling us that there are more factors at work besides lot area
 - Proximity to ISU: 50% of the city population are ISU student's and the University is the state's largest employer, employing 25% of the city

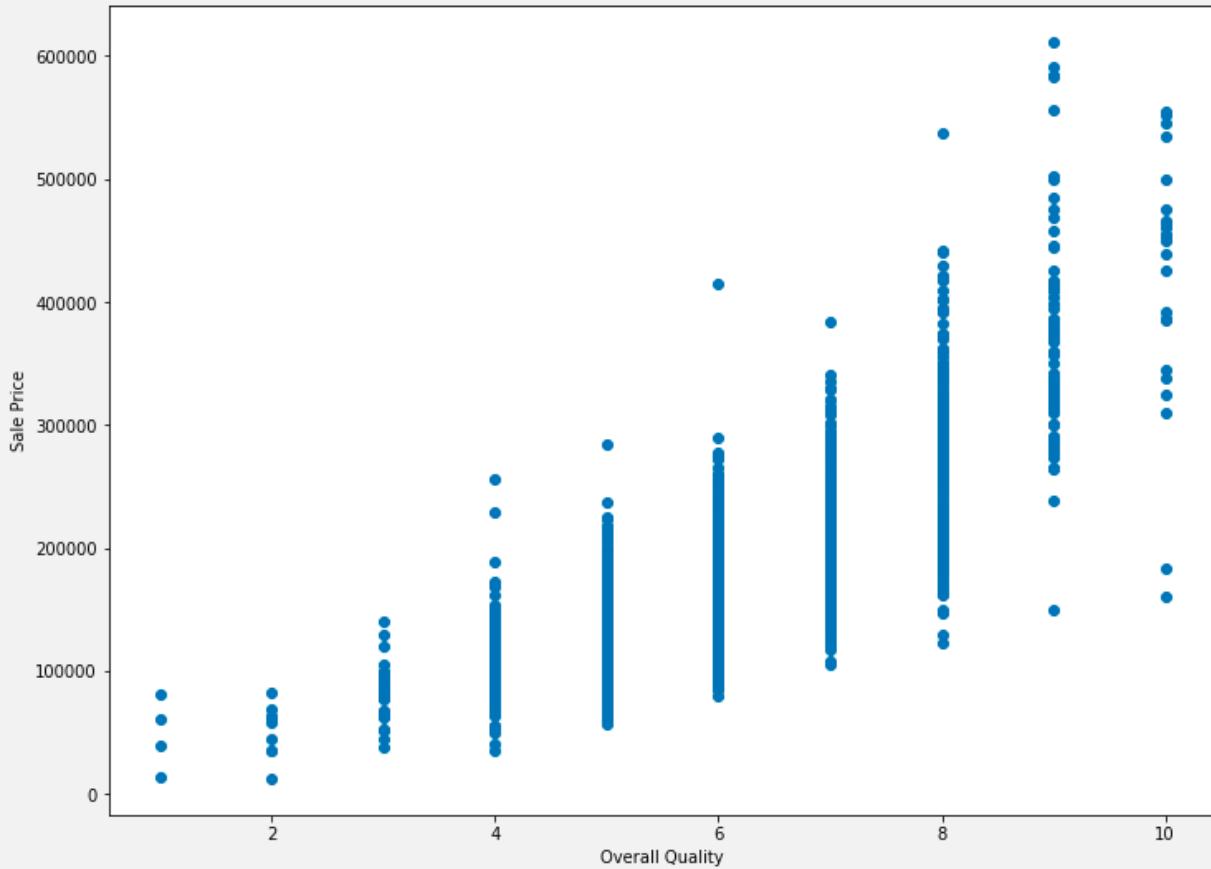


WELL, WHAT ABOUT THE HOUSE SIZE?

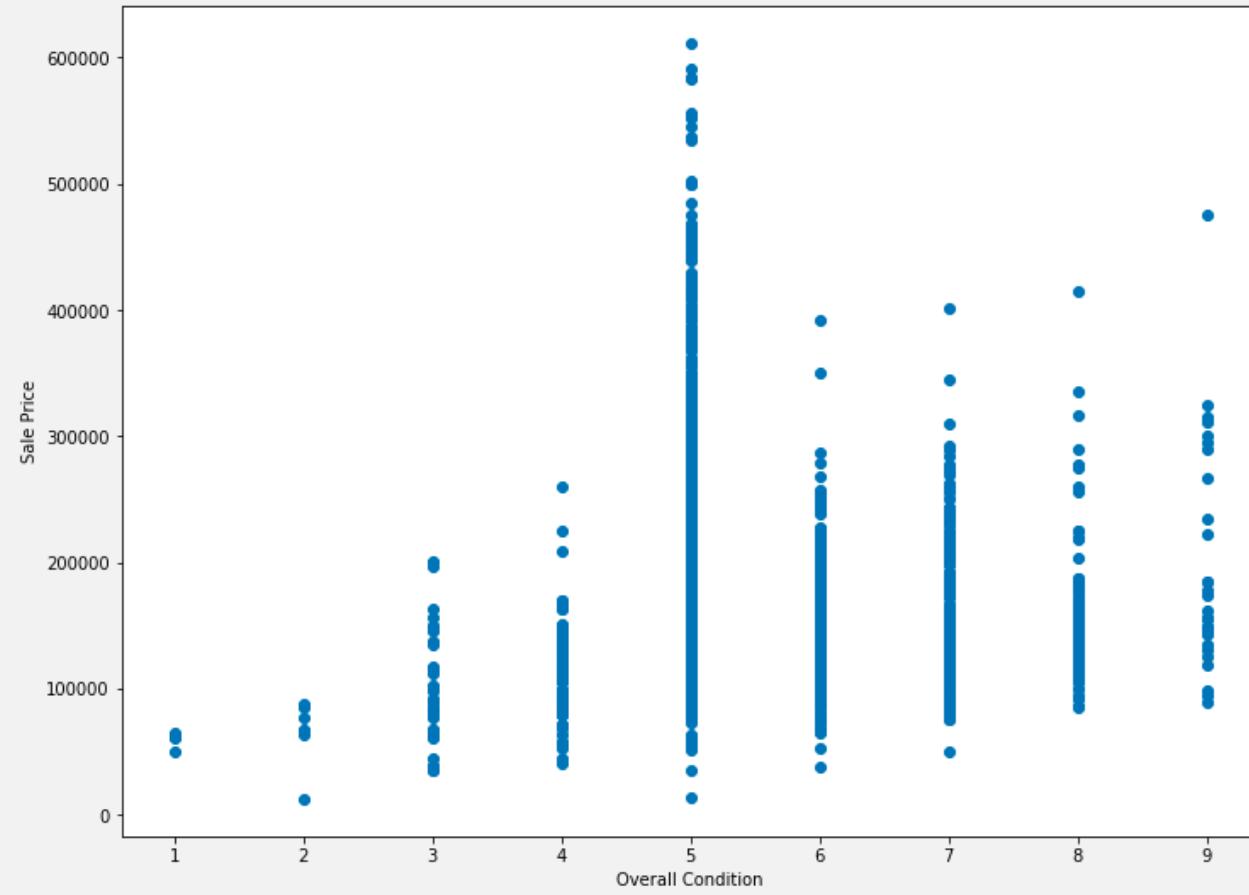
- When we look at the total above ground living area, we see a more linear relationship than we did in the previous slide
- But, what's the point of living in a huge house in the middle of nowhere if you aren't the People's Temple or David Koresh?
- But, when I buy a house I'm not just looking at where it is and how big it is, I want to know the quality....



QUALITY CHECK



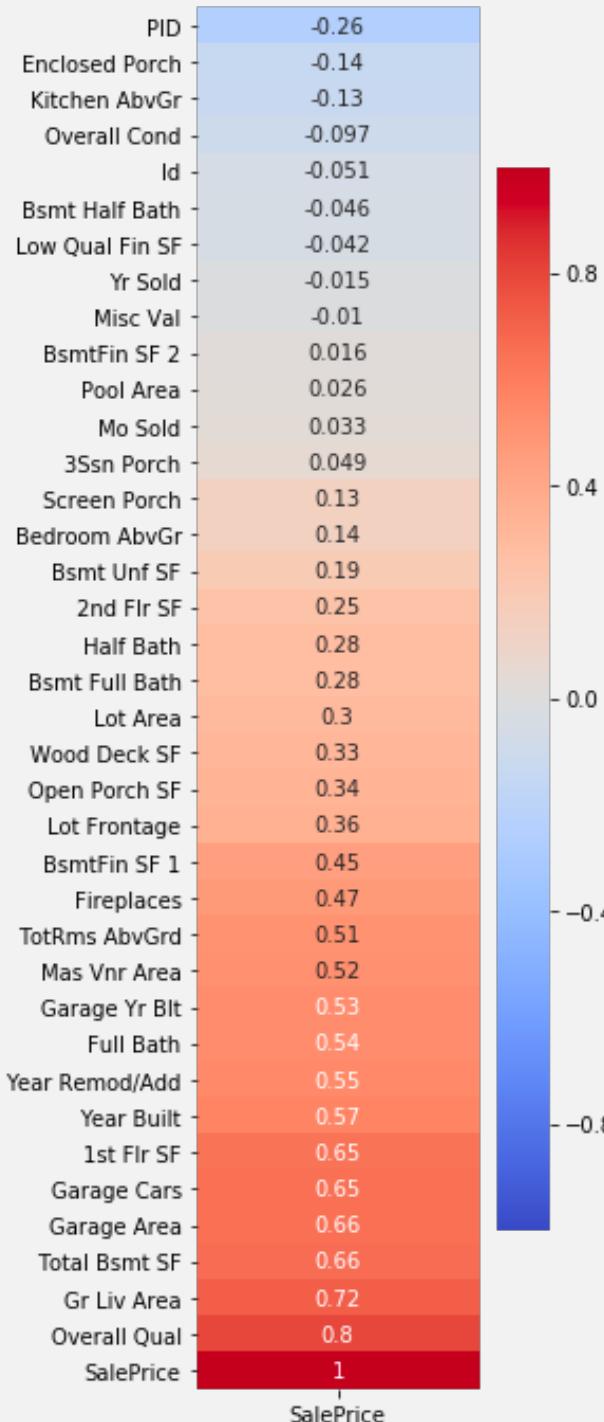
Overall Condition: Rates the quality of the materials & finish of the house



Overall Condition: Rates the overall condition of the house

FEATURE SELECTION

- My best scoring model used a combination of features pulling both from qualitative scores given for the “quality” of the house, materials, and condition as well as quantitative data for the total size of the house
- I also dummied out all of the neighborhood columns and included them. However, it did not produce a drastic improvement in the accuracy of the model.



INSIGHTS

- The data set includes the "neighborhood" of the houses, but not the zip code
- While it contains some information on proximity to arterial roads, there is no information about proximity to the university or other landmarks. Given the importance of the university and USDA facility to the economy of the town, we might expect proximity to these locations as a better predictor of home price than just proximity to main roads
- Complete lack of demographic information.

QUESTIONS?





DID YOU REMEMBER TO CITE SOURCES?

- Employment and population information from:
https://en.wikipedia.org/wiki/Ames,_Iowa
- Data definitions from: <https://www.kaggle.com/c/house-prices-advanced-regression-techniques/data>

WHEN YOU LEARN PIPELINES 24 HOURS
BEFORE PROJECT2 IS DUE

