Capstone 2 Project Proposal:

Predicting Housing Prices

***Background:***

**According to Zillow (a leading real estate company), median home prices are projected to rise in the U.S. market. Since home prices are predicted to rise, no buyer wants to pay for a home that is worth less than the listed price. Many buyers rely on realtors to find the home with the best value. Unfortunately, sometimes buyers can be left with an overvalued home once the realtor has claimed his or her commission on the sale.**

***The Problem and Data:***

Buyers need a tool to estimate what the actual sales price of a home should be. With an estimation tool, buyers won’t have to rely solely on the word of a realtor or a seller that a home is appropriately priced. Using a data set available from Kaggle, I aim to give buyers a resource to determine what the actual price of a home should be based on its features. The data set I plan to use for my analysis contains data on houses in Ames, Iowa. The data set contains 79 distinct feature variables and missing values that will have to be either omitted or filled. I plan to use statistical analysis, python programming, and machine learning algorithms to identify key features that best explain the variation between sale prices.

***Deliverables:***

I plan on delivering a housing price prediction model that will be beneficial to buyers, sellers, and investors. In addition to the model, I plan to provide a report that provides details on my process as well as the features that have the greatest influence on price. Buyers, sellers, and real estate investors will find this model useful when determining what the price of a home should be. Buyers and sellers could use this model as a guide to haggle on the price of a home leading to savings or profit on the home depending on the party. Real estate investors could use the insight from the report to focus on investing in homes with valuable features. In conclusion, my aim for this project is to assist all parties by providing a mathematical formula to determine what the starting price for a home should be based on its features.