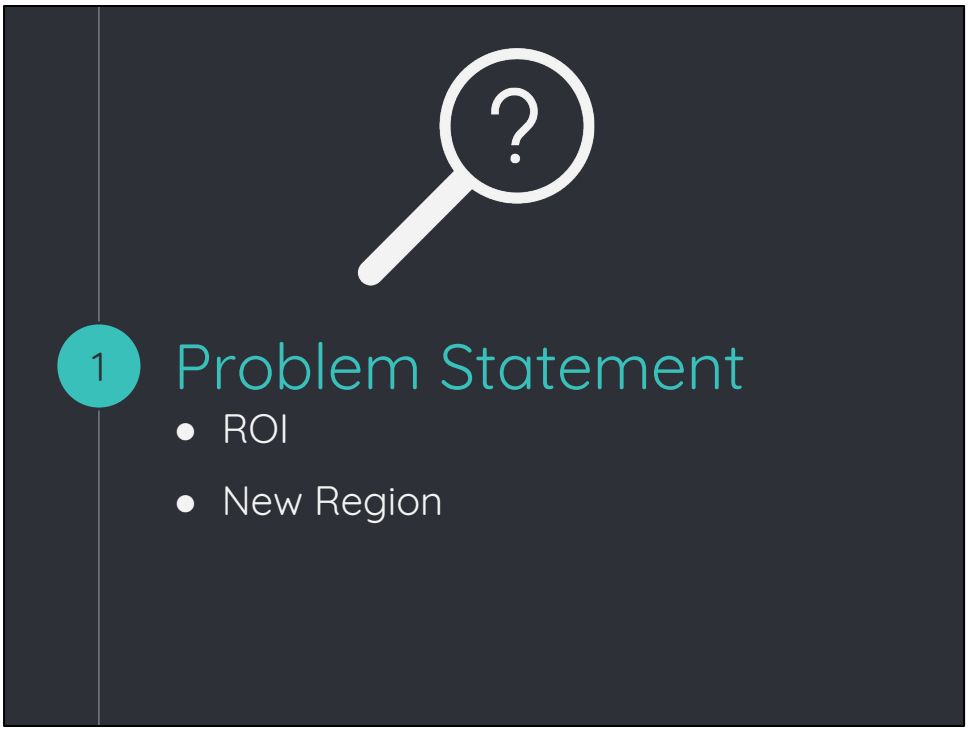
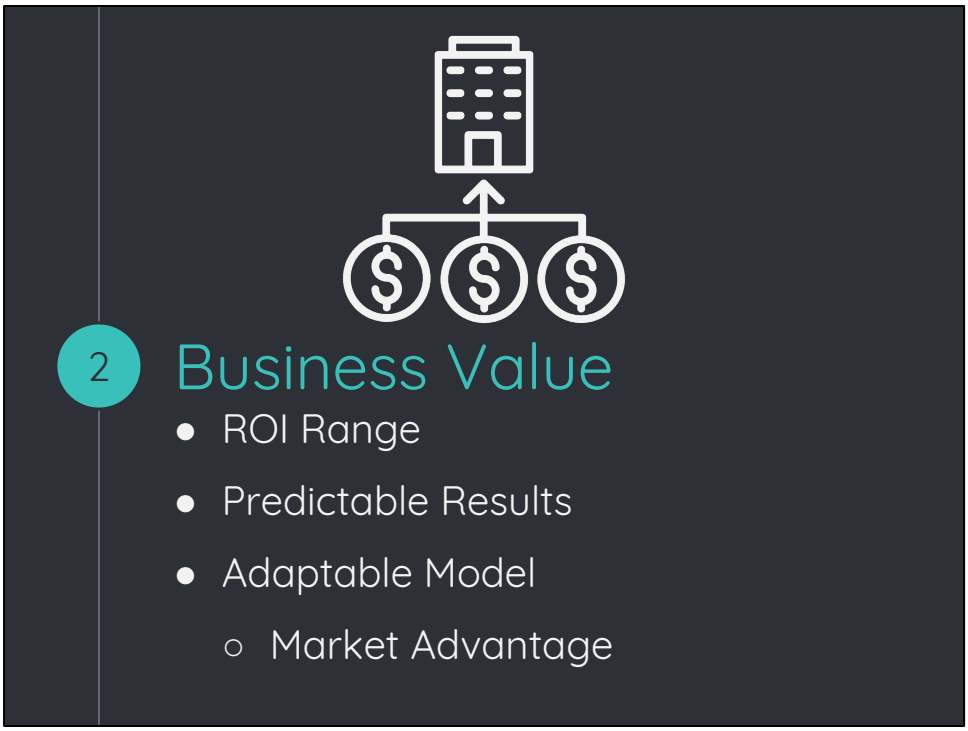
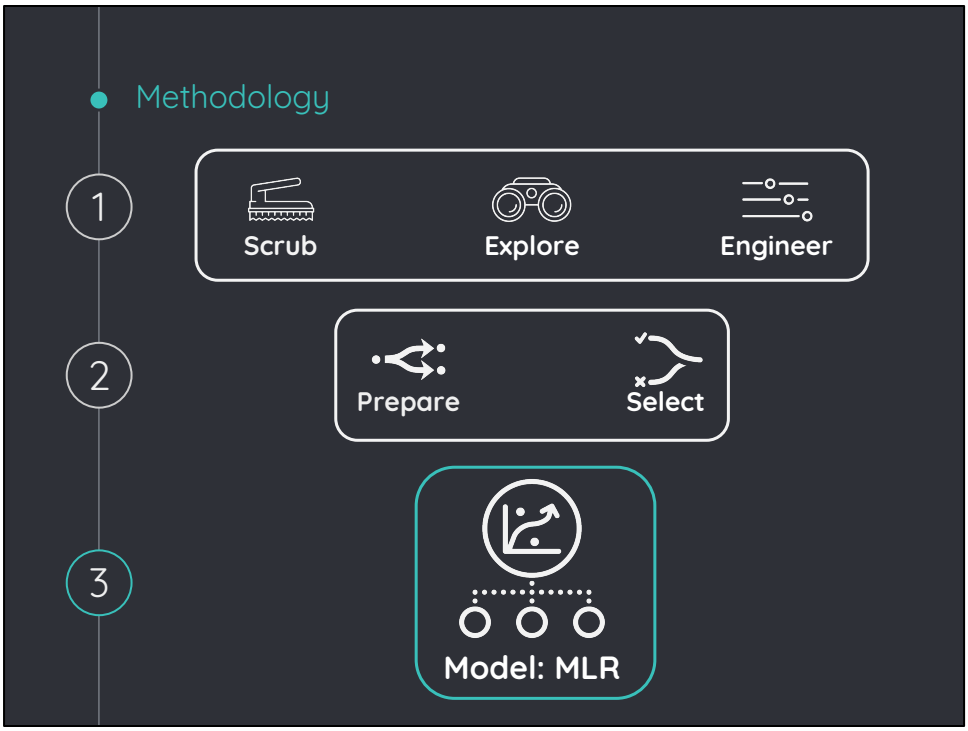
Purchasing Model in King County, WA



- We have a poorly understood ROI on properties purchased in King County, WA. In order to determine the best strategy, it is vital for us to understand the likely value of a property in the context of the region.
- King County is a new venture for our organization. While we were successful in purchasing properties in our pilot program, a full scale implementation requires us to fully understand the region.



- By identifying the possible range of ROI, we can make a more informed decision to purchase or pass on an opportunity. Making faster decisions means we lose out less on opportunity, while still decreasing our risk.
- Having predictable results keeps investors happy, which will open opportunities for us in the future.
- We expect to continue to expand. Having a model that we can quickly adapt for any market will allow us to make faster decisions about new opportunities. This gives us a national market advantage

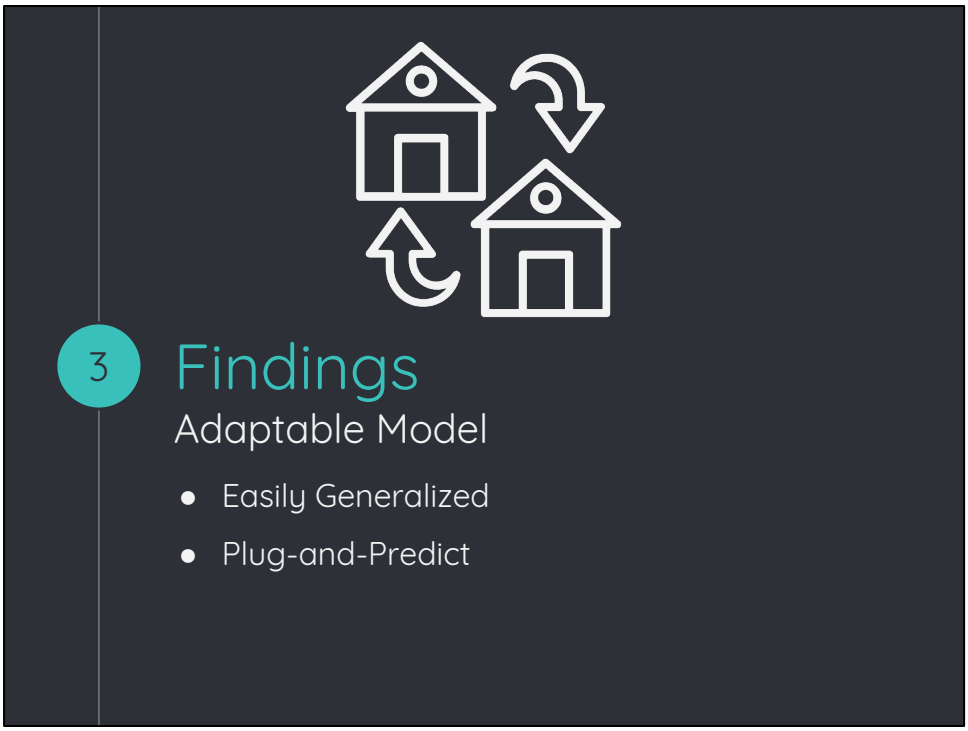


The data needed to create the model was readily available from the King County government. The methodology used to provide recommendations is broken up into three steps:

1) Processing: The data is processed to clean it of entry errors, explore relationships, and engineer new relationships based on our current market understanding. For example, a measure of “neighbor envy” was engineered by comparing data of neighboring properties to a specific property.
2) Pre-modeling: The data is scaled so that every feature has equal weight, and is modified based on the results of the processing. The most pertinent features are selected to reduce the complexity of the final model.
3) Modeling: Modeling was done with Multiple Linear Regression, which is, in a way, the “best fit line” for the data. This model allows every feature to contribute to making the prediction, but identifies the features that are more important by giving them more weight. The final model is the one that makes the best predictions by minimizing the “error” between the prediction and the real price.

- The model gives us a way to determine the likely ROI in this new market by comparing the ask price to the expected price for a given house *at a specific confidence (e.g. 95% confidence)*.
- We can identify high ROI opportunities through the data before looking at properties, which maximizes the time that we spend on the best investments.
- We can leverage information about the timing of purchases to optimize the ROI. Purchasing houses before they've been viewed by other parties greatly reduces their price, as does purchasing during the fall and winter months.

- An expected range for ROI will improve our consistency with regards to profits in the King County market. Consistent results could allow us to increase our risk tolerance.
- Establishing measurable targets is important to continue to improve. By making results predictable, we can establish realistic targets and modify our processes to achieve them.
- Predictable results are a signal to investors that we are low risk, which might give us access to funds for future expansions.



- This model uses information that can be readily obtained for new markets, which means that the benefits of this model extend to any market that we choose to explore.
- The model is simple to use, so any associate can plug in numbers to predict if a residential property is a good or bad investment. This will optimize our associate's time when analyzing properties.

- The model will be validated using the limited information that we have from the pilot program. We request this information in order to run validation. We will continue to validate the model with information from any new purchases that are made.
- Using a hierarchical model may drastically improve the results by predicting different parameters (e.g. lot value) WITHIN King County at a zipcode or neighborhood level.
- We will analyze data available for other markets to determine which markets we should consider investigating for development.