



Housing Price Data

Course ALY6070: Communicate/Visual Data Analytics

R Shiny Dashboard

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By

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Introduction

In this assignment we have Explored how interactive visualizations can be used to create dashboards. Using the shiny package, a dashboard is created. The dashboard shows how interactive visualizations can be used for exploratory data analysis

Data

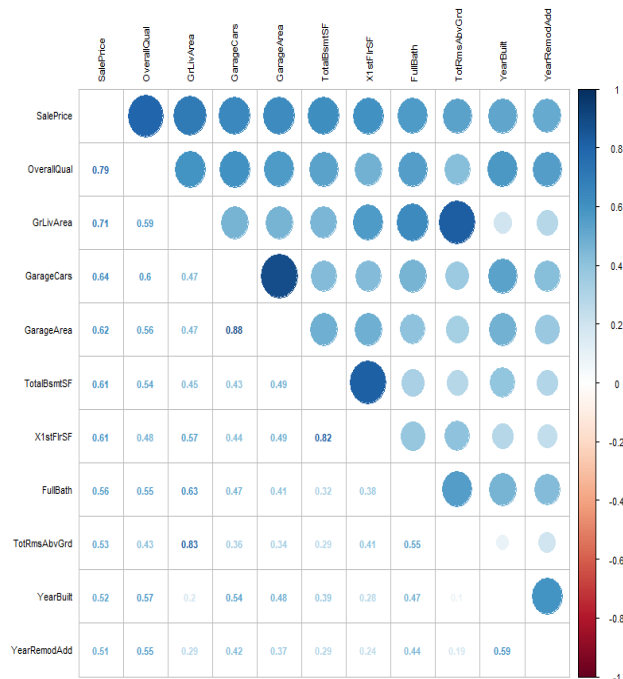
The Housing data set provides housing sales from between 2006 to 2010 and contains variables focused on the quality and quantity of many physical attributes of the property.

There are **1460 observations** and **81 variables**:

- **21 continuous variables** related to various area dimensions for each observation.
- **14 discrete variables** typically quantify the number of items occurring within the house.
- **46 categorical variables** (23 nominals, 23 ordinal). They range from 2 to 28 classes with the smallest being Street (gravel or paved) and the largest being Neighborhood.

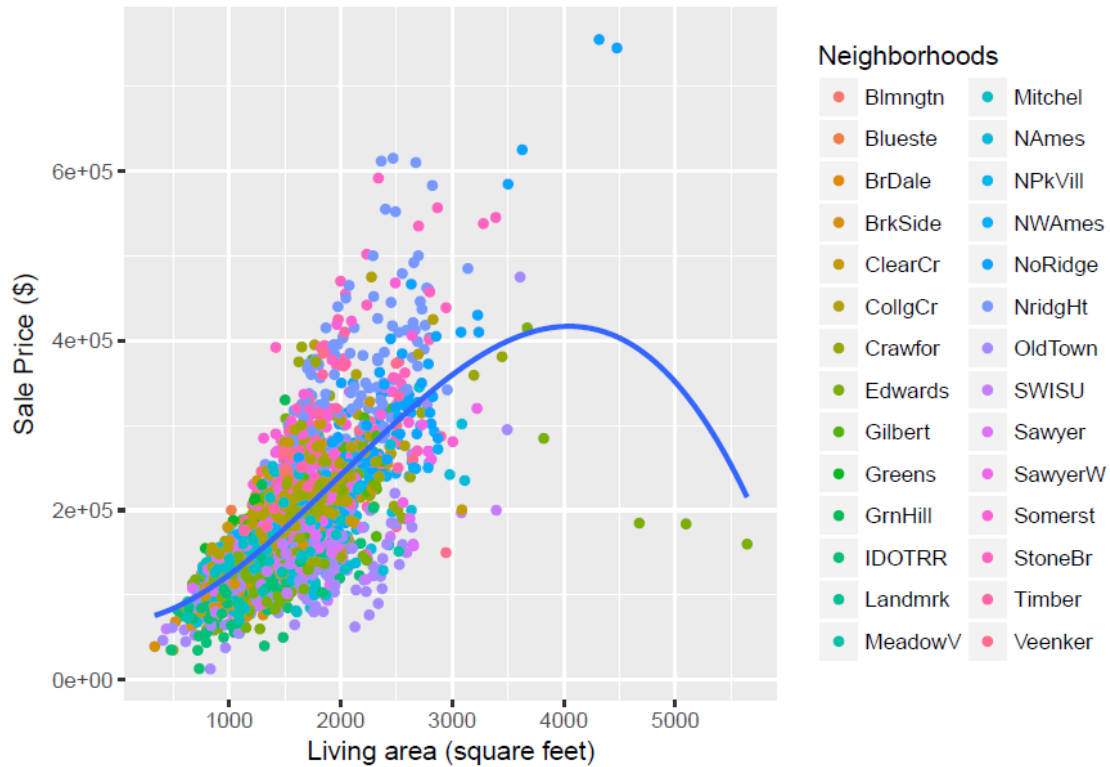
Analysis

Business Questions : Which variables are affecting the Sale price of the houses ?

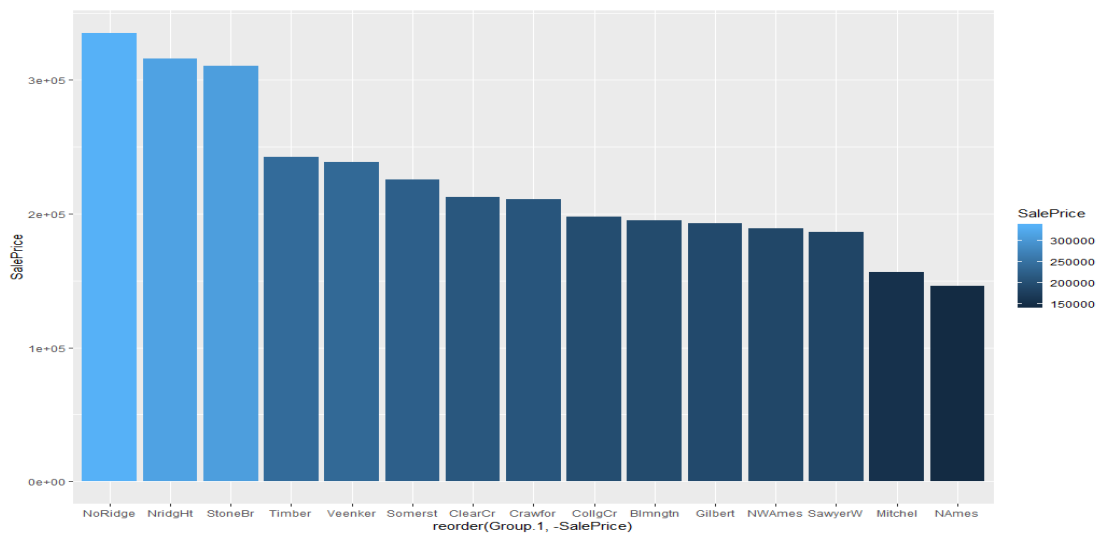


As we are focusing on Sale Price, we tried to find out what all variables are affecting the Sale Price. There exists a multicollinearity among the different variables. This will help to understand which factors are affecting the price of property.

Business Question : Which Neighborhoods shows high Sale price of houses ?



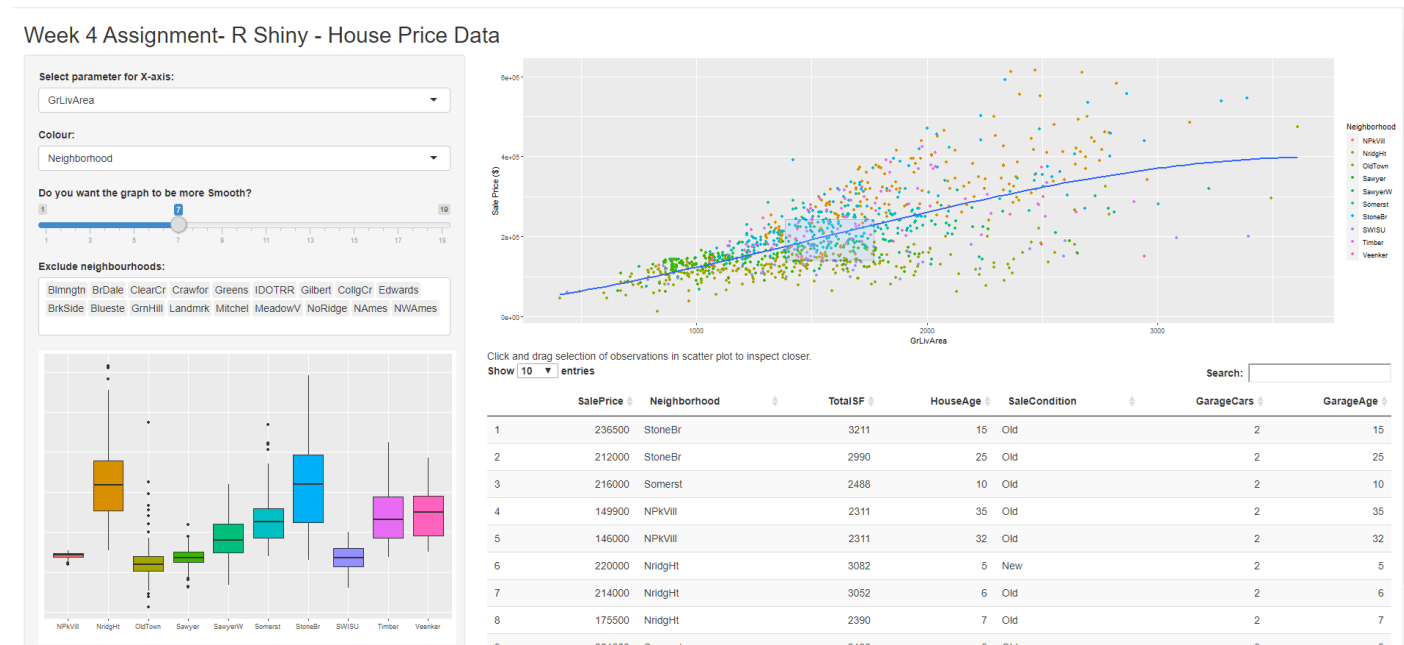
By looking at the graph, it is easy to see the positive relationship between sales price and the size of the house in different Neighborhoods



NoRidge, NridgHt, StoneBr were the top 3 neighborhoods with maximum SalePrice.

R Shiny Dashboard

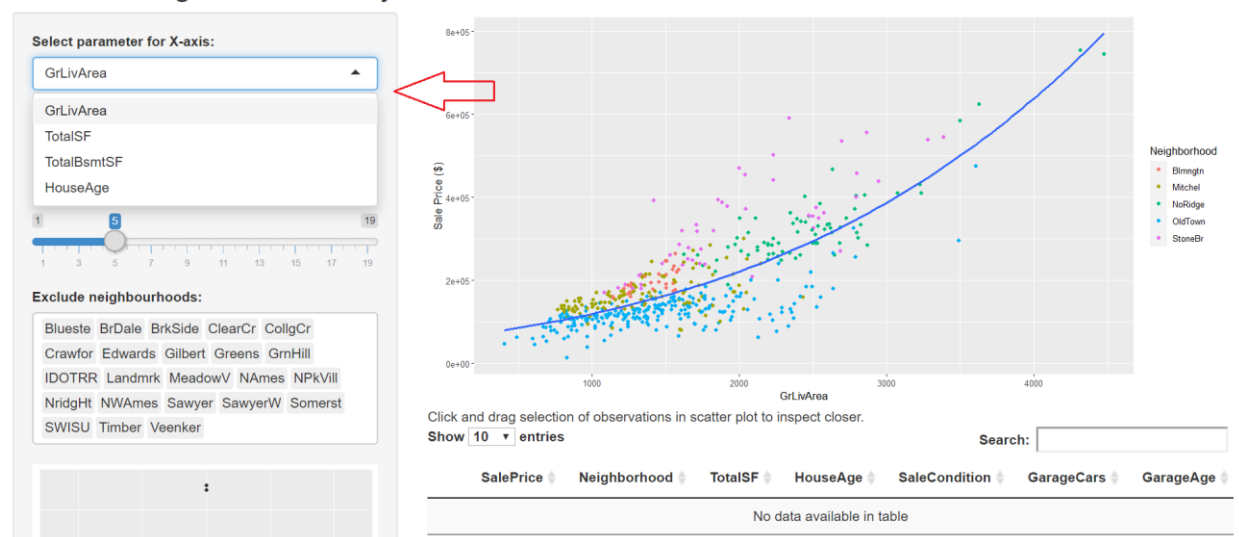
The interactive R shiny dashboard looks like below:



Selecting Input:

The dashboard should be able to filter neighborhoods the factors which are affecting the sale price by clicking and drag a selection.

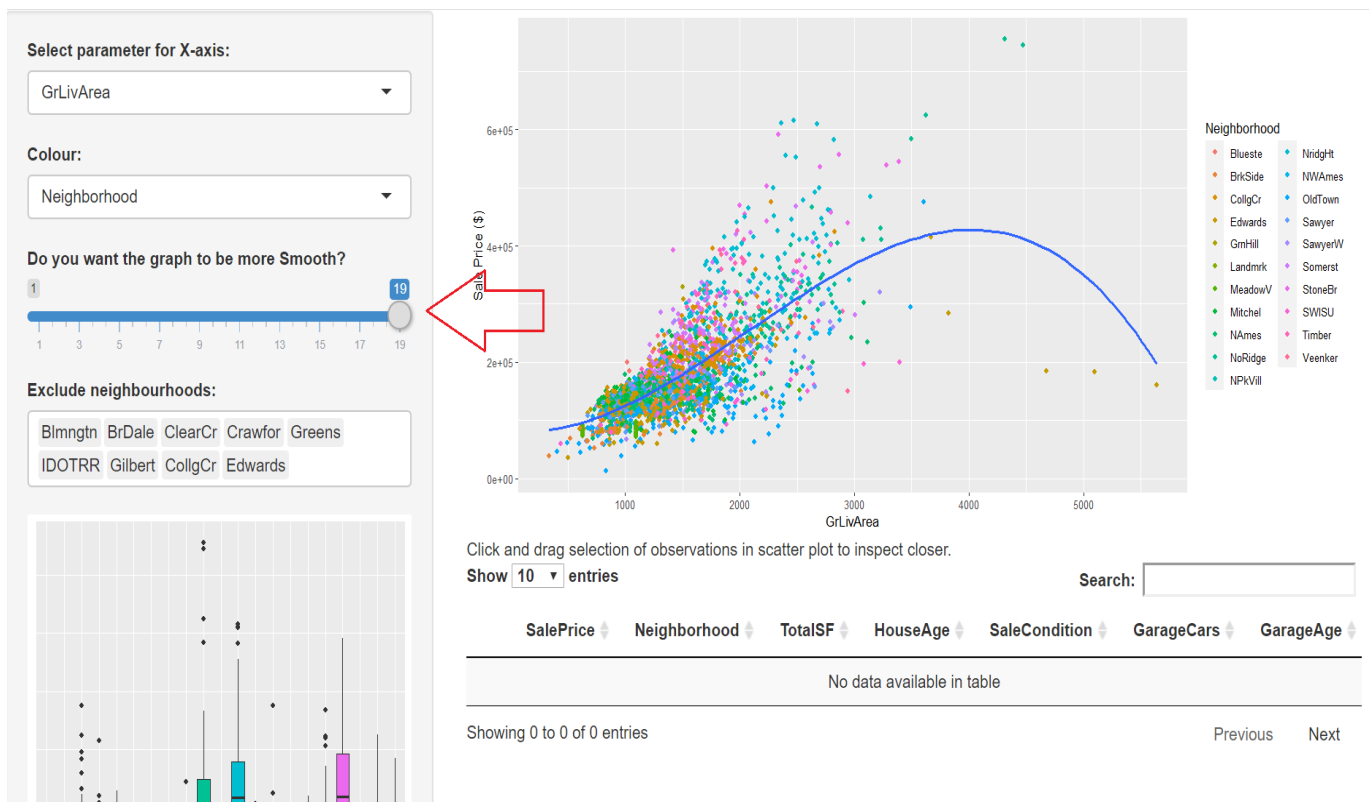
Week 4 Assignment- R Shiny - House Price Data

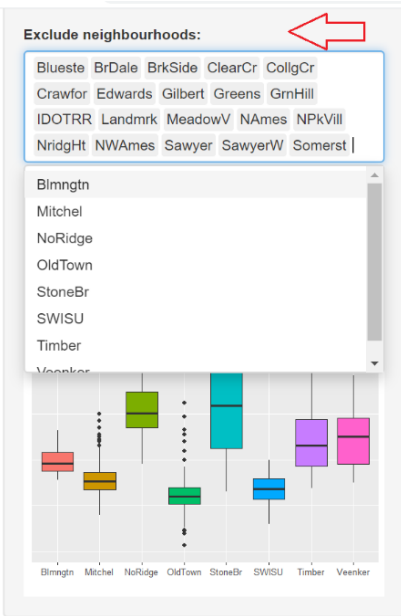


Week 4 Assignment- R Shiny - House Price Data



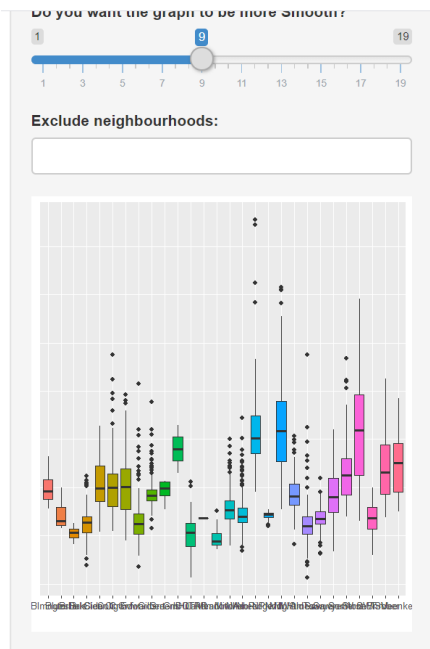
We can also select how smooth the graph we want



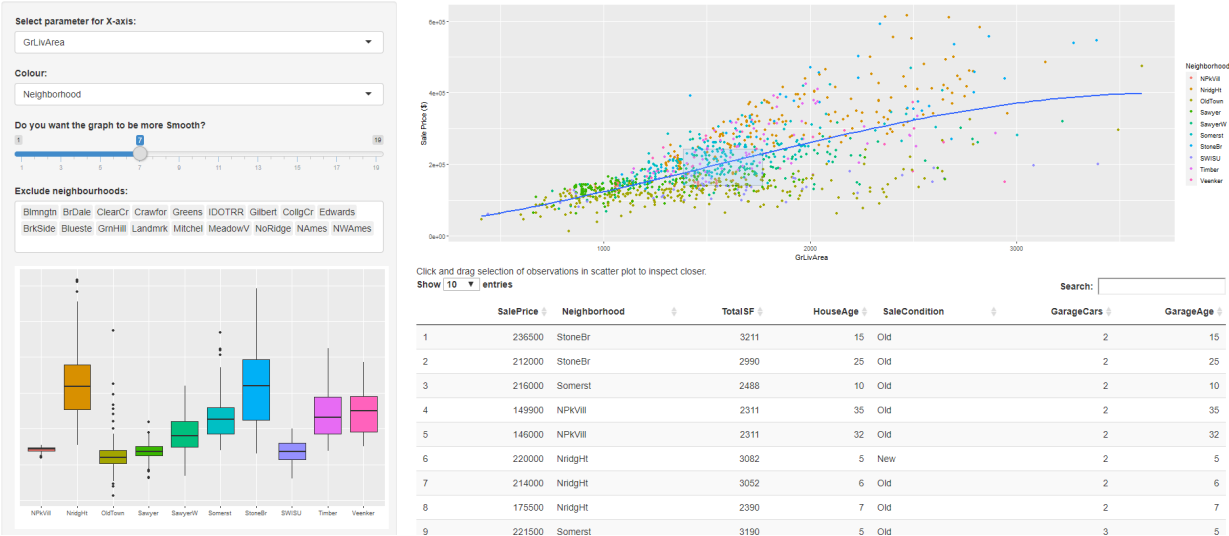


Output :

Boxplot: Box plots of the chosen neighborhoods should be displayed to give the user a quick overview of the data.



Week 4 Assignment- R Shiny - House Price Data



Conclusion

By analyzing the above visualization, we can say that SalePrice was highest in the newly constructed properties in the neighborhood. We observed the Top 3 Neighborhood with highest SalePrice.