

Project Goal

Analyze factors that's affecting house prices and answer the following questions, such as:

- Does having more bedroom means higher house price
- Is a parking space a driving factor for house price
- Is lot area a big factor for house price



Hypothesis

- 1 Null Hypothesis(Ho): There is no statistical difference between sale price for houses that has bedroom that is less than or equal to 2 and houses that has bedroom that is greater or equal to 3
- 1 Alternate Hypothesis(Ha): There is a statistical difference between sale prices for houses that has bedroom that is less than or equal to 2 and houses that has bedroom that is greater or equal to 3
- 2 Null Hypothesis(Ho): There is no statistical difference between sale price for houses that has a car capacity of less than or equal to 1 and houses that has a car capacity of greater than or equal to 2
- 2 Alternate Hypothesis(Ha): There is a statistical difference between sale price for houses that has a car capacity of less than or equal to 1 and houses that has a car capacity of greater than or equal to 2



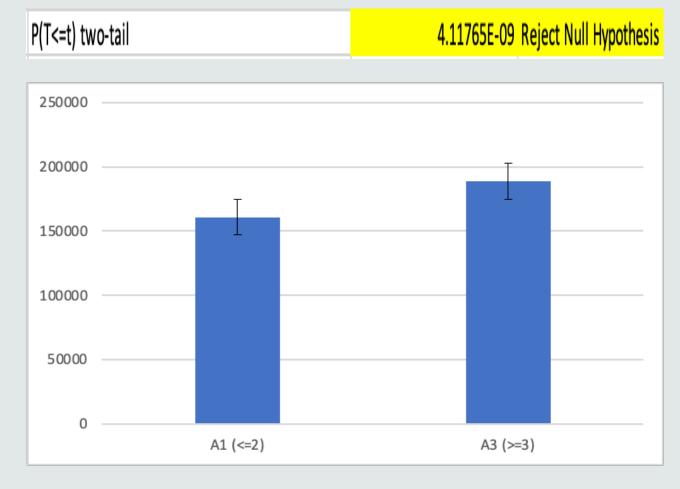
Process

- Analyze data set of house prices with a sample of 1460
- Conduct an analysis to see if there's a statistical significance for number of bedrooms and garage size as variables driving house prices using T-test
- Conduct a correlation analysis for garage area and lot are as variables affecting house prices



Result For Number of Bedroom

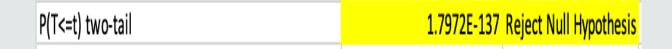
Finding: With a p-value < 0.05,
we reject the null hypothesis.
Therefore, There is a
significant difference for house
price with bedrooms of 2 or less
compared to houses with 3 or
more bedrooms.

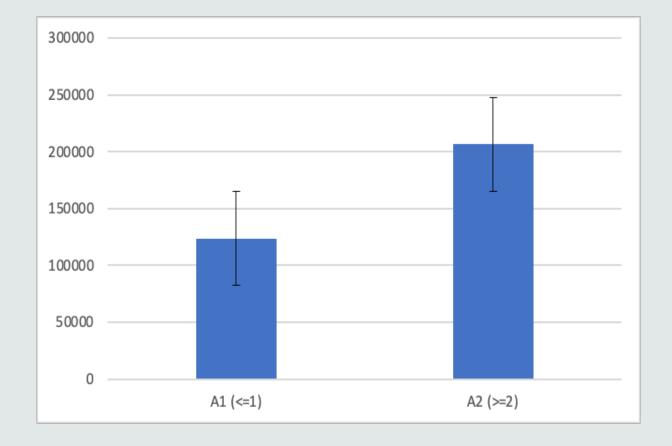




Result For Garage Cars

Finding: With a p-value < 0.05,
we reject the null hypothesis.
Therefore, There is a
significant difference for house
price that has a garage capacity
of 1 or less compared to houses
with a garage capacity of 2 or
more.





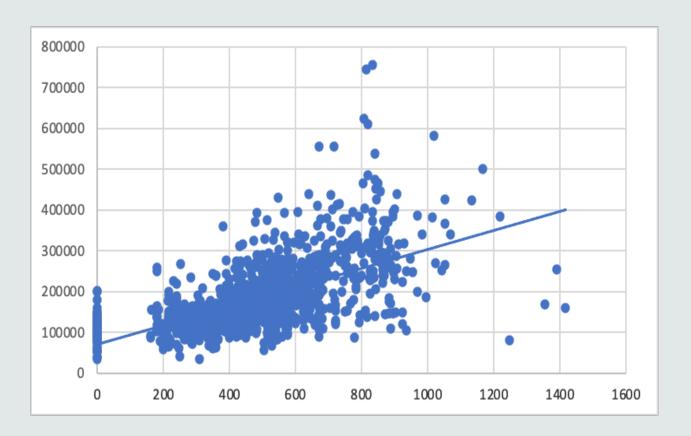


Correlation Analysis For Garage Area

Finding: With a correlation value of 0.6234,

There is a positive correlation between garage area and house prices. As the garage area increases there is also an increase for sale price of houses.

Correlation result using "Correlation" under data analysis function						
	GarageArea	SalePrice				
GarageArea	1					
SalePrice	0.623431439	1	Positive Correlation			



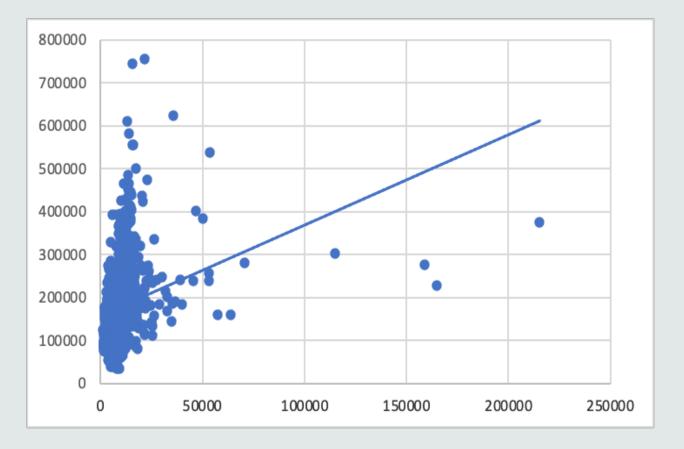


Correlation Analysis For Lot Area

Finding: With a correlation value of 0.2638,

There is a small positive correlation between lot area and house prices. As the lot area increases there is also a slight increase for sale price of houses.

Correlation result using "Correlation" under data analysis function						
LotArea	SalePrice					
1						
0.26384335	1	Positive Correlation				
	LotArea 1	LotArea SalePrice	LotArea SalePrice			





Final Message and Recommendations

The statistical analysis showed that:

 Houses with more bedrooms and bigger garage in terms of number of cars and area, has a statistical significance as a driving force for house prices. On the other hand, lot area has a small but significant effect but it's also a variable that could be considered that has an effect house price.

Recommendation:

 Offer houses with more rooms and bigger garage area that could accommodate 2 or more cars, as well as reconsidering lot area of houses.

