

# House Flipping Analysis for DreamFlip Ventures



# Introduction



DreamFlip Ventures aims to achieve success and high return on investment (ROI) in the northwestern county's real estate market.

By utilizing a statistical model for property acquisitions, they strive to make informed decisions that maximize profitability and ensure a successful house flipping venture.

# Project Goals



- ❖ Identify the best location for real estate investment with high potential
- ❖ Determine the optimal timing for property acquisitions
- ❖ Identify the most profitable property types or characteristic with high ROI

# DataSet



- ❖ Uses Data from King County House Sales Dataset
- ❖ 19K out of 21.5k records used
- ❖ 15 out of 38 columns used

# Methods



- ❖ Data collection and preparation
- ❖ Data analysis using Linear regression
- ❖ Comparative analysis to identify patterns and trends.
- ❖ Actionable recommendation generation based on findings.

# Modeling

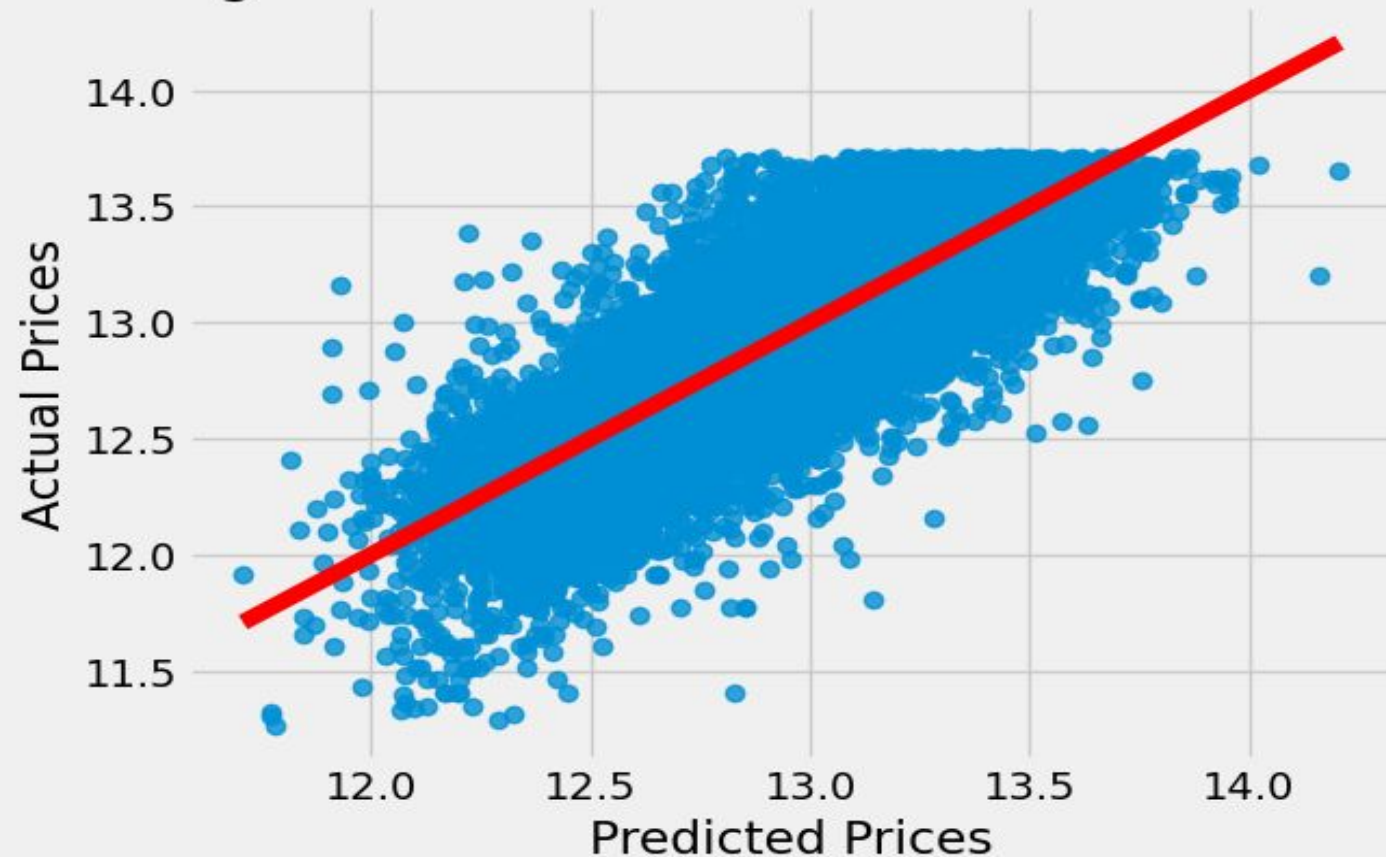


The analysis utilizes multiple linear regression to understand the relationship between predictors and property prices.

Factors such as location and property condition are examined to identify key drivers of property value.

# Model

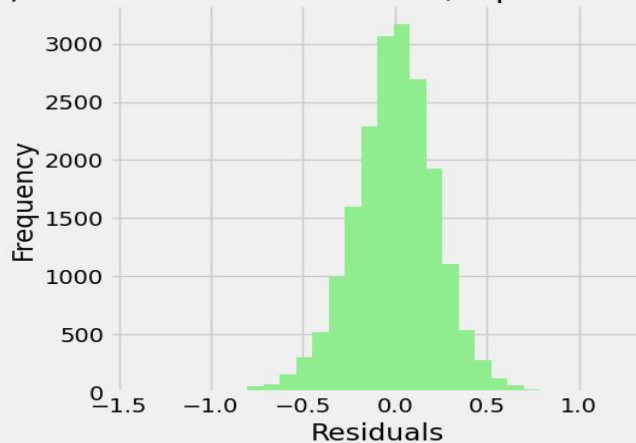
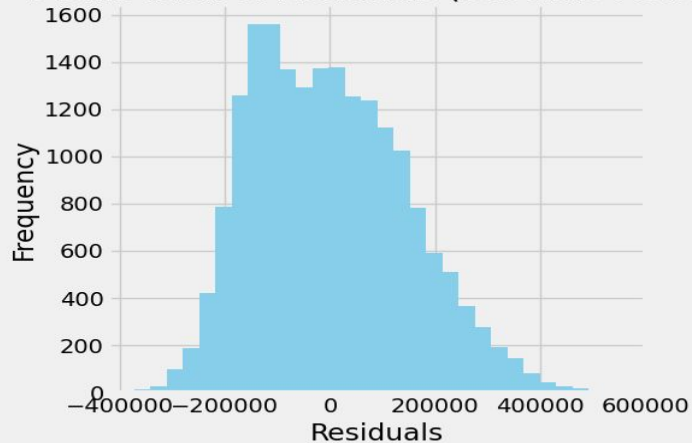
## Regression Plot - Predicted vs Actual Prices



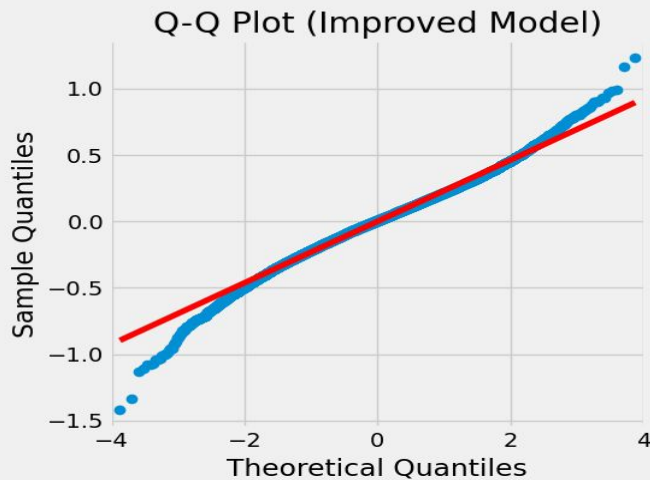
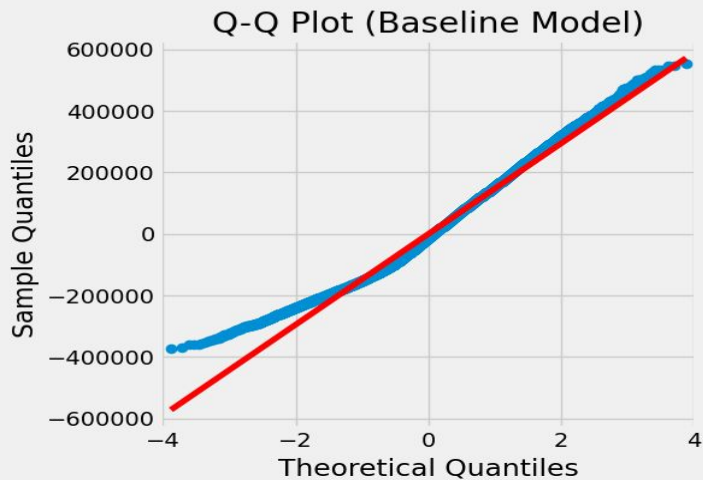
◆ The prices are positively correlated proving our model performance

# Models Performance

Distribution of Residuals (Baseline Model) Distribution of Residuals (Improved Model)



◆ More normally distributed  
Correlates with better performance





# Regression Result

bathrooms	0.0388	0.003	11.378	0.000	0.032	0.046
sqft_living	0.0002	4.63e-06	45.264	0.000	0.000	0.000
sqft_lot	7.099e-07	4.87e-08	14.568	0.000	6.14e-07	8.05e-07
floors	0.0553	0.004	13.586	0.000	0.047	0.063
waterfront	0.3104	0.039	8.048	0.000	0.235	0.386
view	0.0598	0.003	19.040	0.000	0.054	0.066
yr_built	-0.0031	9.34e-05	-33.017	0.000	-0.003	-0.003
yr_renovated	1.782e-05	5.25e-06	3.393	0.001	7.52e-06	2.81e-05
lat	1.3475	0.013	103.318	0.000	1.322	1.373
long	0.0322	0.014	2.232	0.026	0.004	0.060
waterfront_Duwamish	-0.2550	0.014	-17.622	0.000	-0.283	-0.227
waterfront_Elliott Bay	-0.0255	0.010	-2.429	0.015	-0.046	-0.005
waterfront_Lake Sammamish	0.1090	0.009	12.723	0.000	0.092	0.126
waterfront_Lake Union	0.2559	0.027	9.456	0.000	0.203	0.309
waterfront_Lake Washington	-0.1871	0.012	-15.131	0.000	-0.211	-0.163
waterfront_Puget Sound	-0.0477	0.012	-3.876	0.000	-0.072	-0.024
season_Spring	0.0465	0.005	10.068	0.000	0.037	0.056
season_Summer	0.0078	0.005	1.681	0.093	-0.001	0.017
season_Winter	0.0005	0.005	0.094	0.925	-0.010	0.011
condition_Fair	-0.1342	0.018	-7.317	0.000	-0.170	-0.098
condition_Good	0.0525	0.004	12.517	0.000	0.044	0.061
condition_Poor	-0.1958	0.044	-4.441	0.000	-0.282	-0.109
condition_Very Good	0.1061	0.007	15.441	0.000	0.093	0.120
grade_11 Excellent	0.0508	0.046	1.103	0.270	-0.039	0.141
grade_3 Poor	-0.1984	0.232	-0.856	0.392	-0.653	0.256
grade_4 Low	-0.7895	0.047	-16.769	0.000	-0.882	-0.697
grade_5 Fair	-0.7010	0.021	-33.341	0.000	-0.742	-0.660
grade_6 Low Average	-0.5457	0.015	-36.111	0.000	-0.575	-0.516
grade_7 Average	-0.3585	0.013	-26.606	0.000	-0.385	-0.332
grade_8 Good	-0.1978	0.013	-15.400	0.000	-0.223	-0.173
grade_9 Better	-0.0606	0.013	-4.612	0.000	-0.086	-0.035

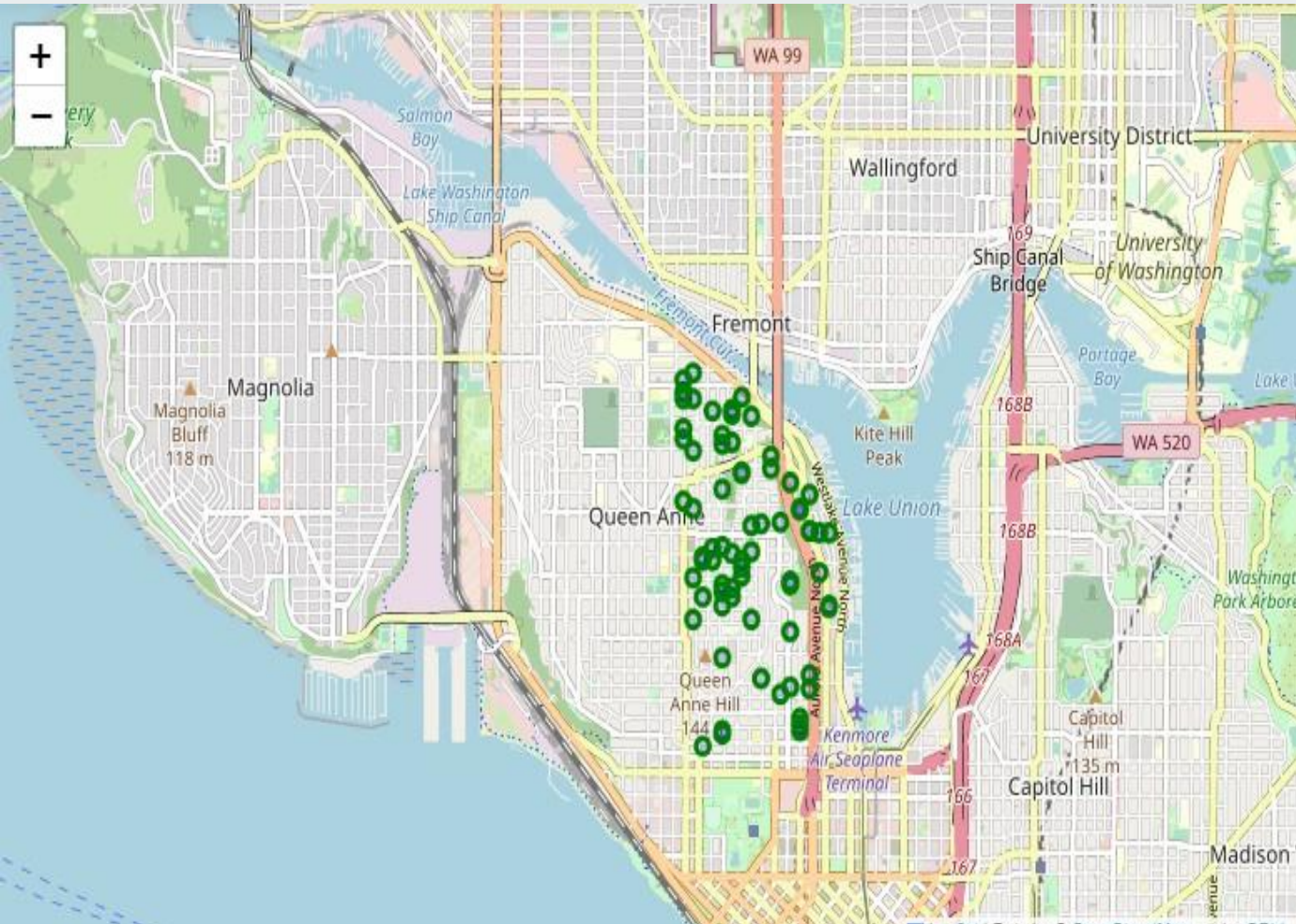
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Where?

What?

When?

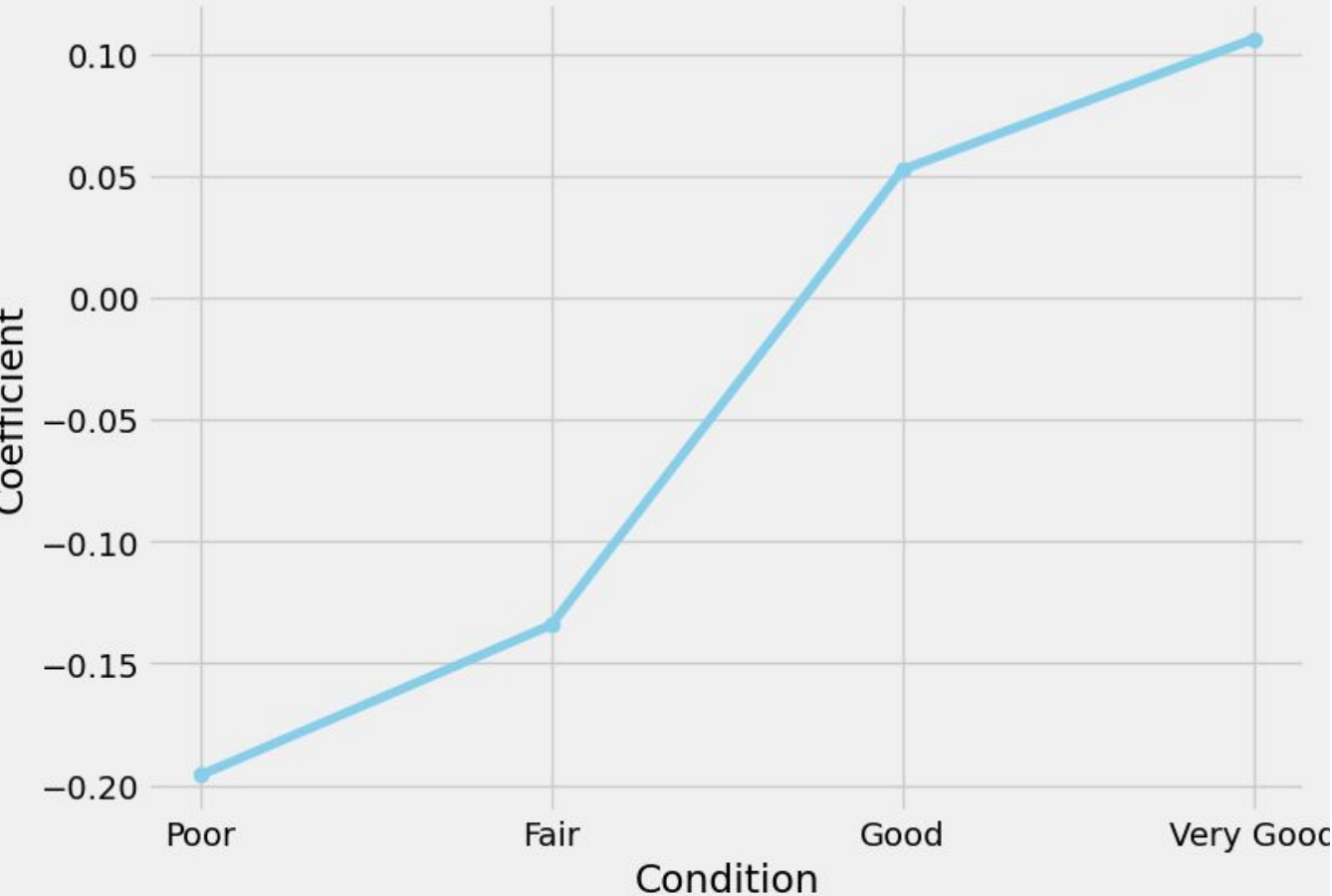
# Findings



## Where

- Waterfronts increases price by 30%
- Lake union has the most with 25% increase

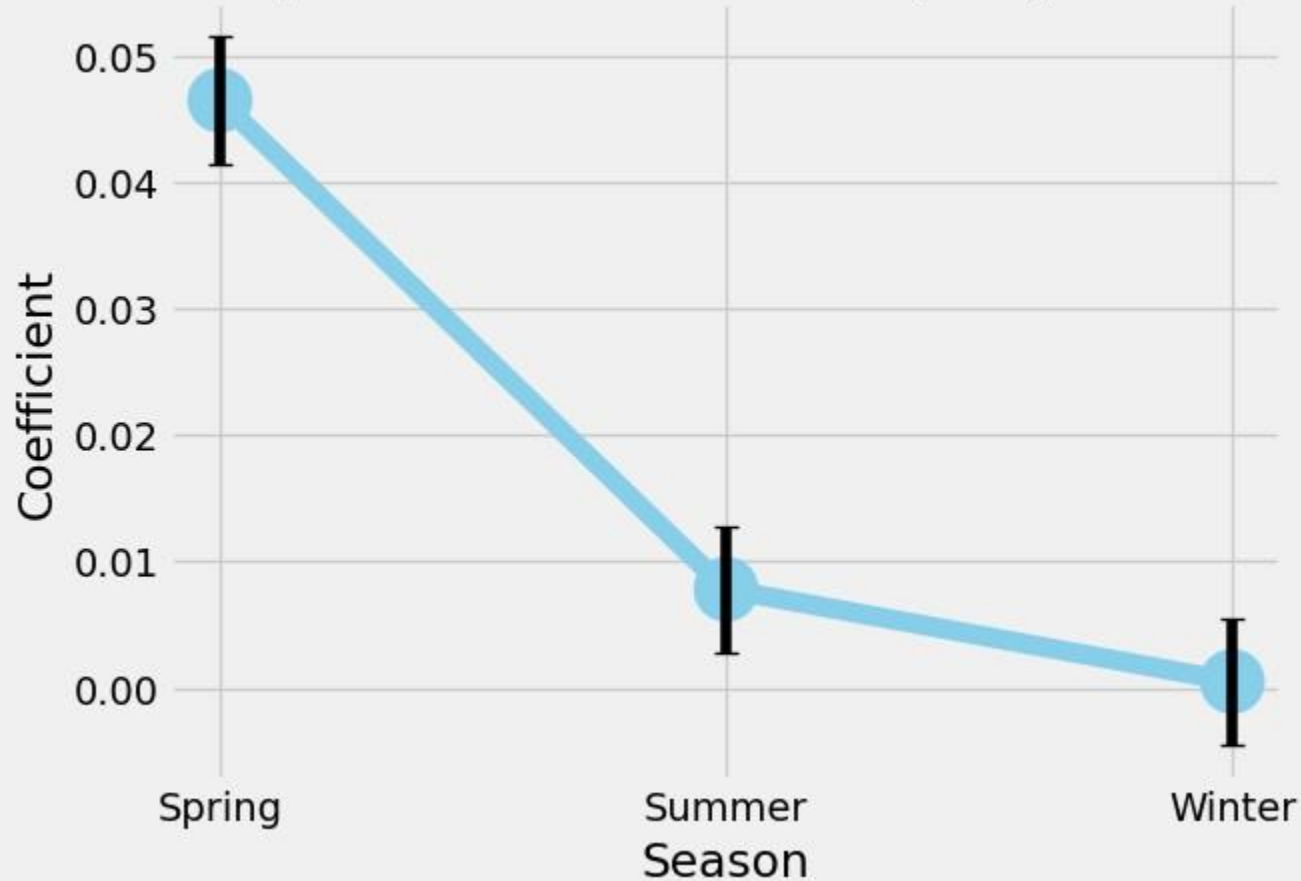
Coefficients for Different Conditions



## What?

- Poor condition has -20% while Very Good has 10% increase in price
- Adding bathrooms increases house price by 4%

## Impact of Seasons on Property Prices



## When

- Spring has the highest price rise which is 5%
- Winter has almost 0 significance in price rising

# Recommendations



## ❖ Where

- Buy Houses near Lake Union with a nice view

## ❖ What

- Buy houses with poor conditions and grades for lower prices and renovate them by adding 1 or 2 bathrooms to increase grade and condition hence high ROI

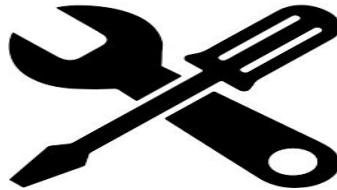
## ❖ When

- Sell houses on Spring where price increases by 5% and buy them on winter with no increase in price at that time

# Conclusion



**WATERFRONT (LAKE  
UNION)**



**POOR GRADE ,NEEDS  
REPAIR**



**ADD SOME BATHROOMS**



**THANK YOU**