PROBLEM

With the Philippines becoming a popular tourist destination for Westerners, venturing into hotels offers a promising business opportunity.

Goal: What's the best price for room types in urban, suburban, and rural areas?
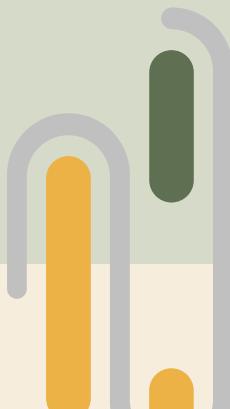
DATASET DESCRIPTION

"Analysis of Hotels in booking.com"

DATASET DESCRIPTION

LABEL

Price (Zloty)

NOMINAL

Hotel, Performance, Guest Reviews, Region City

BINOMINAL

Breakfast

INTEGER

Marks, Reviews, Price, Distance, Stars
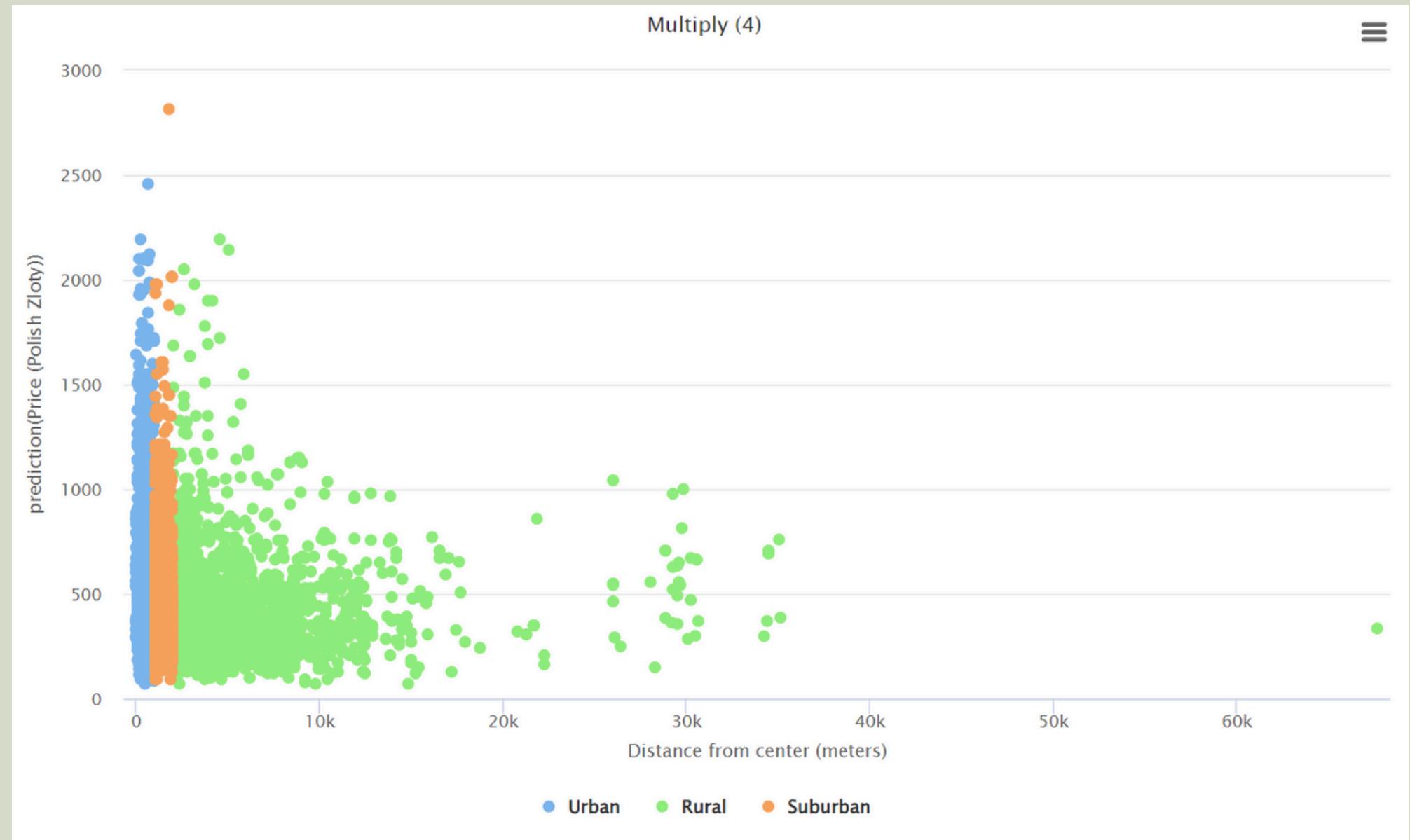
DATA VISUALIZATION

Row No.	Price (Polis...	prediction(P...	Breakfast	Marks	Region City	Performanc...	Stars	Number of ...	Distance fro...	Filtered_Ro...	Are
1	480	292.500	Breakfast incl...	7.500	Bergenhus, B...	Good	4	1106	250	Double Room	Urt
2	383	510.409	Breakfast incl...	7.400	Bergenhus, B...	Good	3	3572	500	Single Room	Urt
3	283	398.839	No Breakfast	7.900	Lower Town, ...	Good	3	2633	500	Single Room	Urt
4	398	482.167	Breakfast incl...	8.800	Zagreb	Excellent	3	1049	2800	Double Room	Ru
5	430	434.500	Breakfast incl...	9	Upper Town ...	Wonderful	4	441	1600	Deluxe Room	Sul
6	462	560.100	Breakfast incl...	8.800	Lower Town, ...	Excellent	4	3667	100	Single Room	Urt
7	402	526.429	Breakfast incl...	8.700	Lower Town, ...	Excellent	4	894	500	Double Room	Urt
8	383	954.867	Breakfast incl...	9.200	Lower Town, ...	Wonderful	4	1301	900	Double Room	Urt
9	197	295.508	No Breakfast	9.300	Upper Town ...	Wonderful	3	232	1400	Single Room	Sul
10	211	190	No Breakfast	9.100	Lower Town, ...	Wonderful	2	639	1000	Studio Room	Urt
11	160	171	No Breakfast	?	Lower Town, ...	?	0	?	700	Studio Room	Urt
12	383	265.750	Breakfast incl...	8.800	Upper Town ...	Excellent	3	793	350	Deluxe Room	Urt
13	263	282	No Breakfast	8.500	Lower Town, ...	Very Good	4	43	300	Single Room	Urt
14	375	755.462	No Breakfast	9.400	Lower Town, ...	Wonderful	4	883	350	Deluxe Room	Urt
15	258	241	No Breakfast	9.600	Lower Town, ...	Exceptional	3	126	450	Single Room	Urt

Predicts the price of the
hotel room based on the
other attributes.

Predicted price compared
to distance

DATA PREPARATION
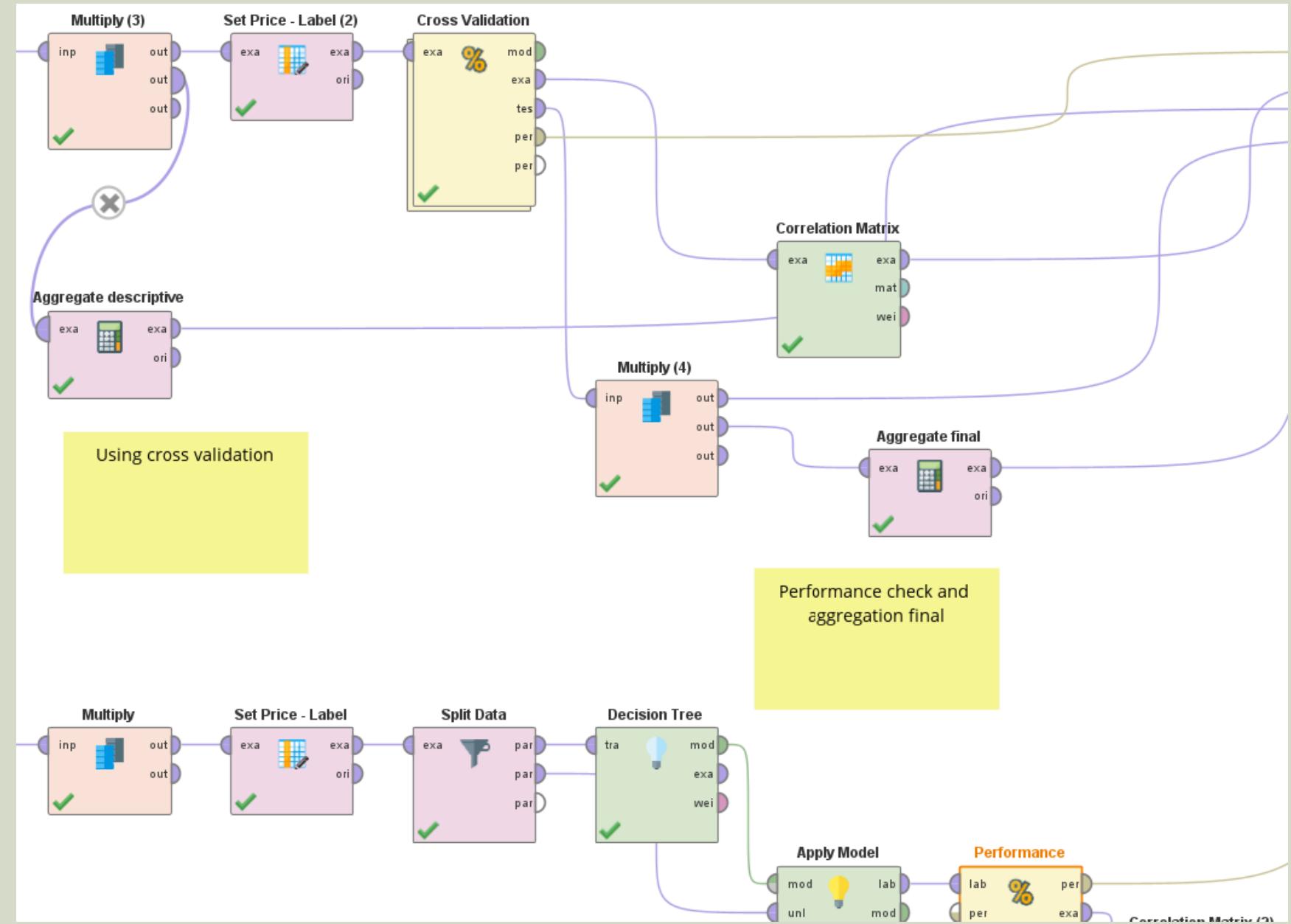
How I prepared the data.

Cleaning up the data by removing missing values and the removing string in the pricing

Filtered rows that cost less than 3000 zloty since it might be too high.
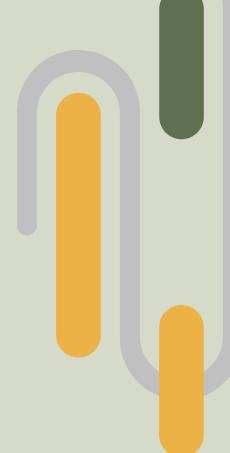
Set price as label.

MODEL SELECTION

CROSS VALIDATION w/ DECISION TREE

DECISION TREE
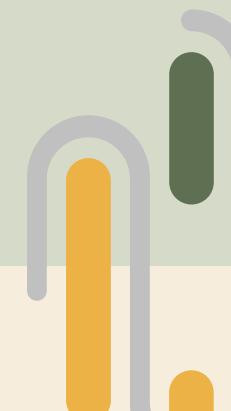
0.338 **Cross Validation w/ Tree**

squared_correlation

squared_correlation: 0.338 +/- 0.063 (micro average: 0.337)

0.333 **Decision Tree**

squared_correlation

squared_correlation: 0.313

CONCLUSION

URBAN			
Room	Average	Min	Max
Twin Room	560.69	35	2323
Suite Room	835.82	132	2478
Studio Room	424.1	129	1487
Single Room	446.22	84	2346
Loft	804.6	686	943
Family Room	563.29	181	1112
Double Room	518.65	94	2041
Deluxe Room	705.53	84	2815
Apartment	547.39	108	2120

Suburban			
Room	Average	Min	Max
Twin Room	509.15	70	2094
Suite Room	715.92	194	1506
Studio Room	424.53	131	1188
Single Room	403.9	44	1598
Loft	622	465	779
Family Room	404.6	192	815
Double Room	493.45	30	2013
Deluxe Room	621.34	161	1938
Apartment	417.45	140	1540

Rural			
Room	Average	Min	Max
Twin Room	426.62	96	1403
Suite Room	602.59	209	1271
Studio Room	389.91	70	854
Single Room	352.92	47	2975
Loft	610.13	188	931
Family Room	364	122	617

CONCLUSION

Key trends show that Urban rooms not only average higher prices but also exhibit the widest price range. Suburban areas are more stable and moderately priced, while Rural rooms offer the most budget-friendly options.

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