



Airbnb Linear Regression

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Airbnb

A **web platform** where users can rent out their space to host travelers to:



**Save
Money**

When traveling



**Make
Money**

When Hosting



**Share
Culture**

Local Connection To
The City



Product

Prices



Entire apartment hosted by Mina

2 guests · Studio · 1 bed · 1 bath



Entire home

You'll have the apartment to yourself.



Enhanced Clean

This host committed to Airbnb's 5-step enhanced cleaning process. [Learn more](#)

\$70 / night

★ 4.60 (5)

CHECK-IN
Add date

CHECKOUT
Add date

GUESTS
1 guest



Check availability



Prices



10

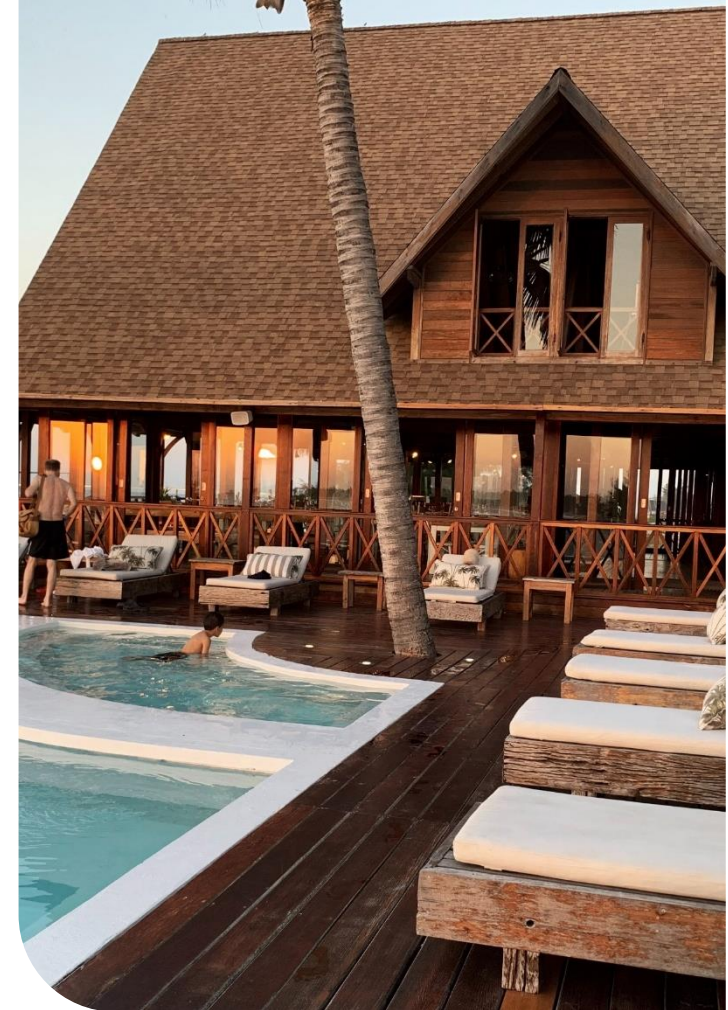
Features

522

Rows

Cities

London
Milano
Berlin
Madrid
Amsterdam





Methodology

Understand the problem



Preparing the data



Web Scraping



Regression



Regression

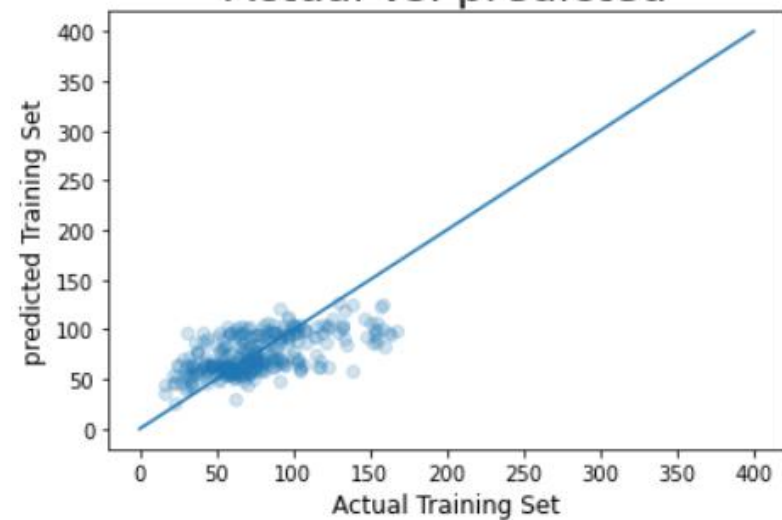
Polynomial Regression	Linear Regression	Lasso & Ridge Regression
Train score 0.456	Train Score 0.366	Lasso Test Score 0.42940
Validation Score -14.0	Test Score 0.42945	Ridge Test Score 0.426
	Validation Score 0.058	



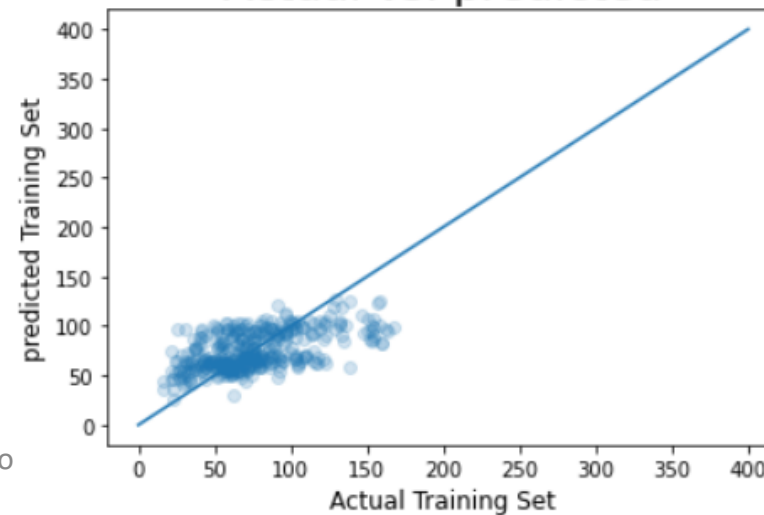
Regression Dashboard

rating	1	0.046	0.0061	-0.041	-0.033	0.017	0.034	0.035	0.045	-0.09	0.007	0.0098
number of reviews	0.046	1	-0.024	0.03	-0.015	-0.0072	-0.02	0.22	0.0043	-0.22	0.065	-0.06
price	0.0061	-0.024	1	0.37	0.34	0.21	-0.041	0.33	-0.19	0.27	-0.27	-0.12
Guests	-0.041	0.03	0.37	1	0.49	0.63	-0.013	-0.051	0.027	-0.053	0.071	0.002
Bedrooms	-0.033	-0.015	0.34	0.49	1	0.38	0.13	0.11	0.041	-0.013	-0.078	-0.055
Beds	0.017	-0.0072	0.21	0.63	0.38	1	-0.045	-0.019	0.025	-0.11	0.1	-0.0013
Baths	0.034	-0.02	-0.041	-0.013	0.13	-0.045	1	0.083	-0.026	0.11	-0.05	-0.12
city_Amsterdam	0.035	0.22	0.33	-0.051	0.11	-0.019	0.083	1	-0.23	-0.25	-0.25	-0.2
city_Berlin	0.045	0.0043	-0.19	0.027	0.041	0.025	-0.026	-0.23	1	-0.28	-0.28	-0.22
city_London	-0.09	-0.22	0.27	-0.053	-0.013	-0.11	0.11	-0.25	-0.28	1	-0.3	-0.24
city_Madrid	0.007	0.065	-0.27	0.071	-0.078	0.1	-0.05	-0.25	-0.28	-0.3	1	-0.24
city_Milano	0.0098	-0.06	-0.12	0.002	-0.055	-0.0013	-0.12	-0.2	-0.22	-0.24	-0.24	1

Actual vs. predicted



Actual vs. predicted





Thank you for listening

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