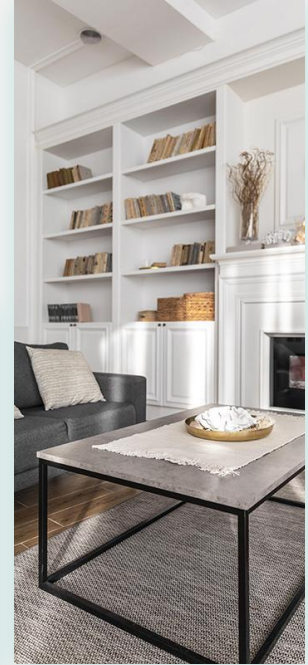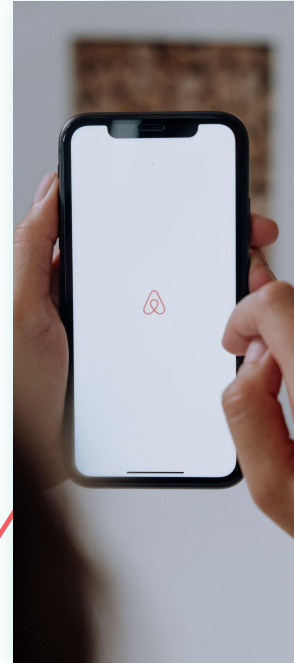# AIRBNB'S
in Berlin

Understanding the market from a tenant perspective and predicting prices for landlords

Anna Heins
DA FT Nov 21

MAIN OBJECTIVES

01

Overview
What's the situation like in Berlin?

Accommodation
Show various types of accommodations

Recommendation
Where to sleep and what to do

02

Features
What is the most important feature?

Prediction
Predict the price for a listing to compete

Learnings
What did I learn?

MAIN OBJECTIVES

01

Overview
Show the most special airbnb's

Accommodation
Show various types of accommodations

Recommendation
Where to sleep and what to do

02

Features
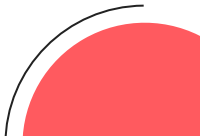What is the most important feature?

Prediction
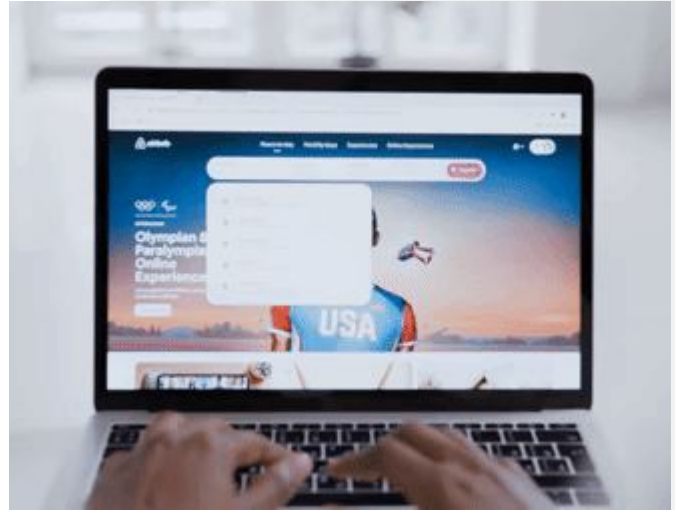Predict the price for a listing to compete
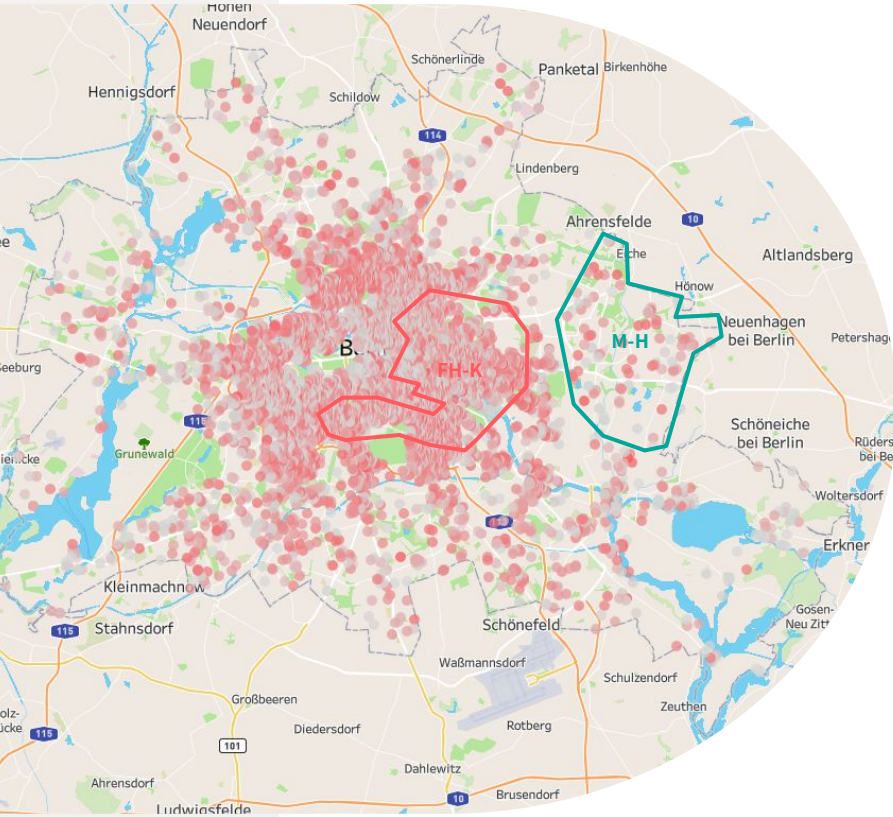
Learnings
What did I learn?

01

Tenant perspective
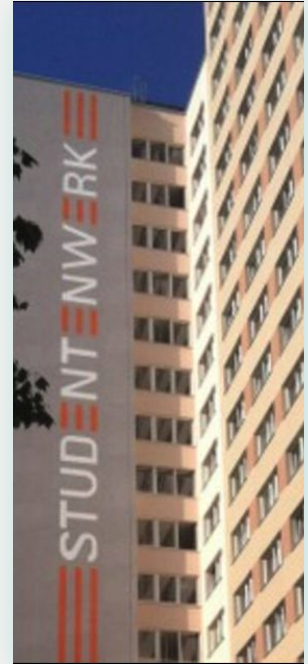
AIRBNB ECOSYSTEM IN BERLIN

- **14687 listed** airbnb's in 2022

- **Accommodate two people** on average

- **Friedrichshain-Kreuzberg** most popular district

- **Marzahn-Hellersdorf** the least favorite

- **173 experiences** in and around Berlin

Prices range from **$8** to **$98,108**

*before outliers were considered

SPECIAL ACCOMMODATIONS IN BERLIN

Casa particular

8 guests
$550
min. 3 nights
Charlottenburg

Island

2 guests
$110
Min. 3 nights
Eiswerder

Shared cottage

4 guests
$45.14
min. 2 nights
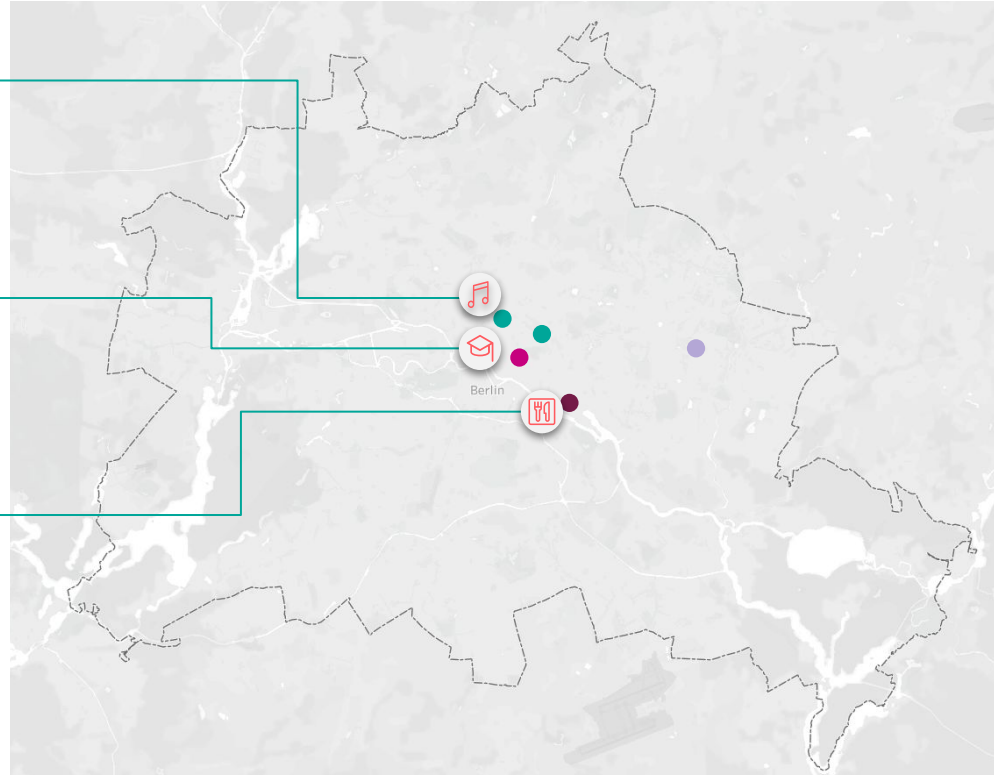Reinickendorf

WHERE TO SLEEP AND WHAT TO DO?

ACCESS

all Berlin Clubs from $200
4.96/5.00
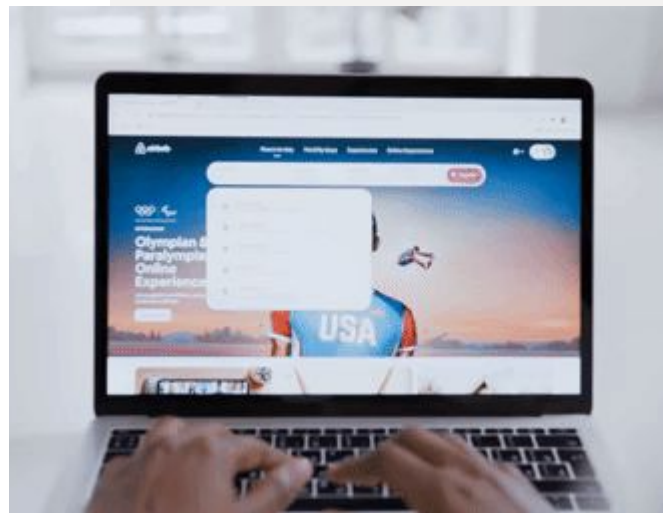
DISCOVER

Berlin starting from $20
4.94/5.00

EAT

Food Tour from $75
4.94/5.00

Berlin

02

Landlord perspective

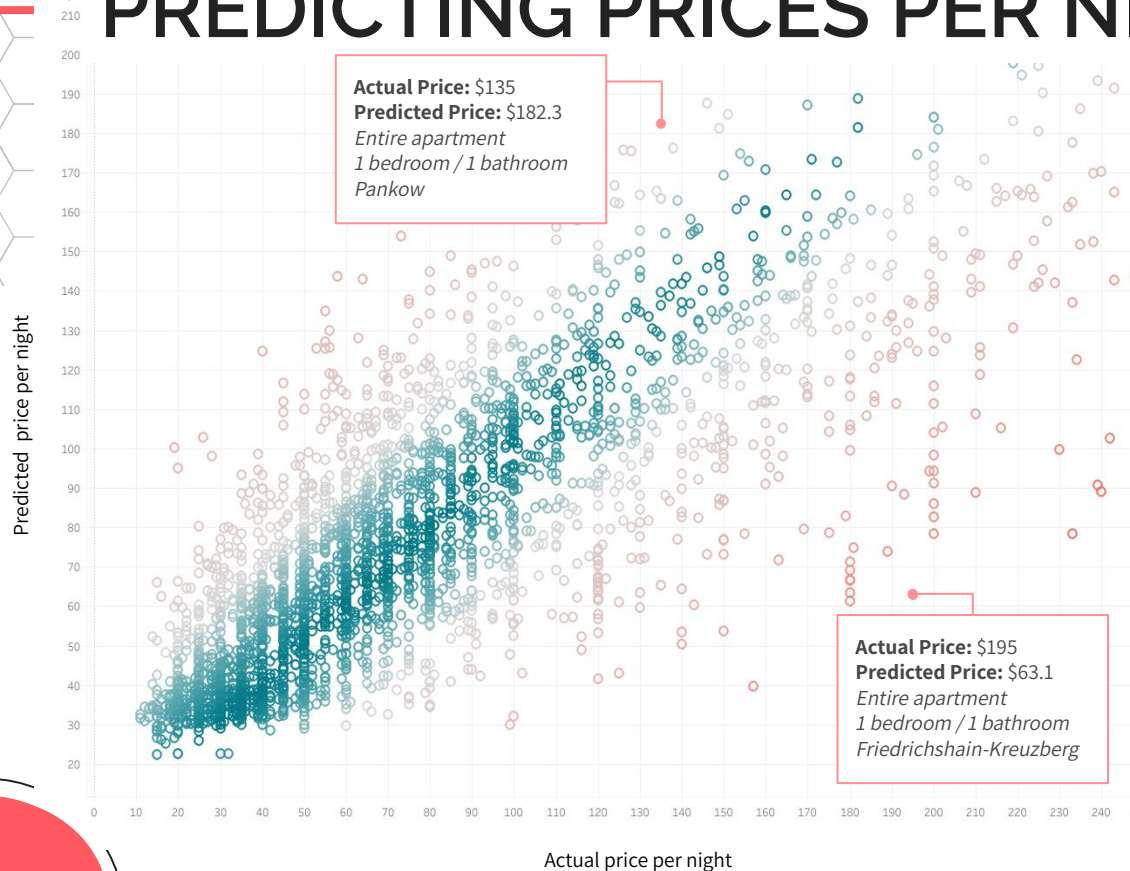# WHAT KIND OF AIRBNB?

Entire

apartment instead of shared one

2 or 5

guests to accommodate

Bedrooms

instead of sofa beds for every double pair

PREDICTING PRICES PER NIGHT

Actual Price: $135
Predicted Price: $182.3
Entire apartment
1 bedroom / 1 bathroom
Pankow

Actual Price: $195
Predicted Price: $63.1
Entire apartment
1 bedroom / 1 bathroom
Friedrichshain-Kreuzberg

Predicted price per night

Actual price per night

RandomForest
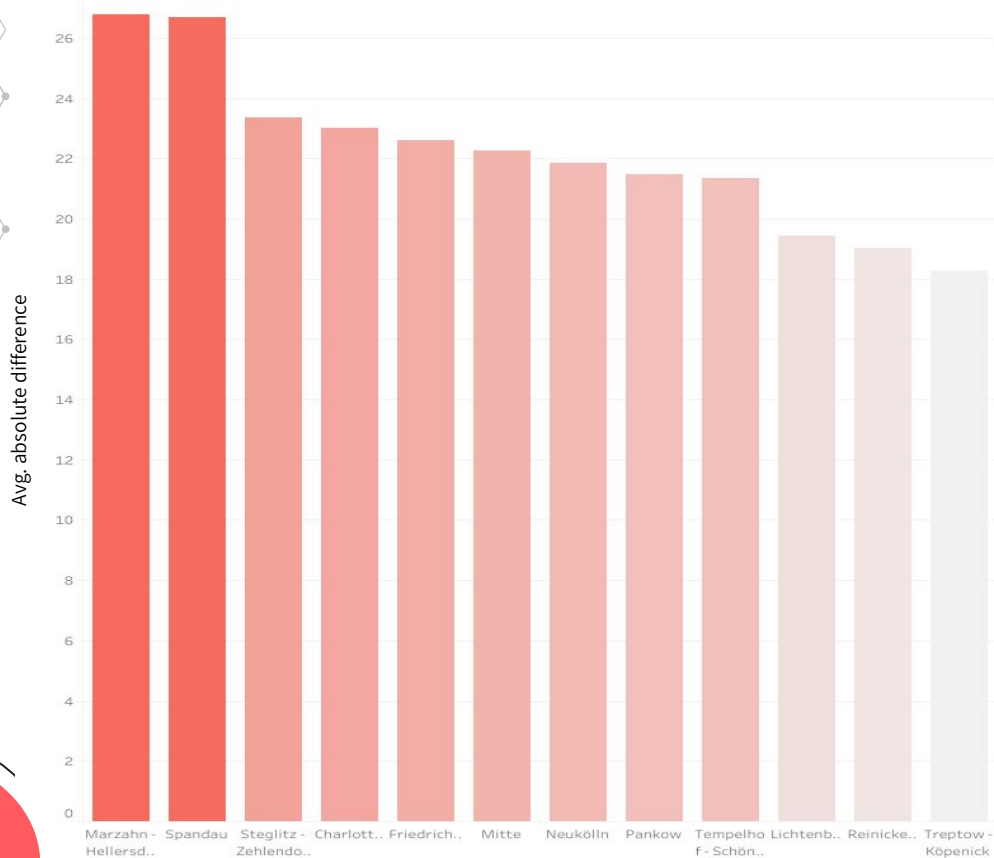
Best model for predictions

RMSE

$ 29.86

Feature Selection

No significant improvement

PREDICTING PER NEIGHBOURHOOD

26.7

Highest avg. absolute difference

$11 - $250

Variation in night prices

1+

Expand data set with more features the sqm

MAIN LEARNINGS

CHEAT SHEET

Prepare your cheat sheet from the beginning

EXTRA MILE

Go the extra mile, the results will be worth it

TEAMWORK

Combine each others strengths

ASK FOR HELP

Four eyes work better than two!

NEW HEROS

Stackoverflow, github and google really are my heros

PATIENCE

Eventually everything will make sense

NOW LET'S BOOK YOUR TRIP TO BERLIN

RESOURCES

DATA

- Web Scraping via Airbnb.com/experiences
- Data on accommodations - http://insideairbnb.com/get-the-data/

SLIDE DESIGN

- Slide Template: Slidesgo.com

PICTURES

- Pictures: pexels.com