

DATA CHALLENGE



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Objective



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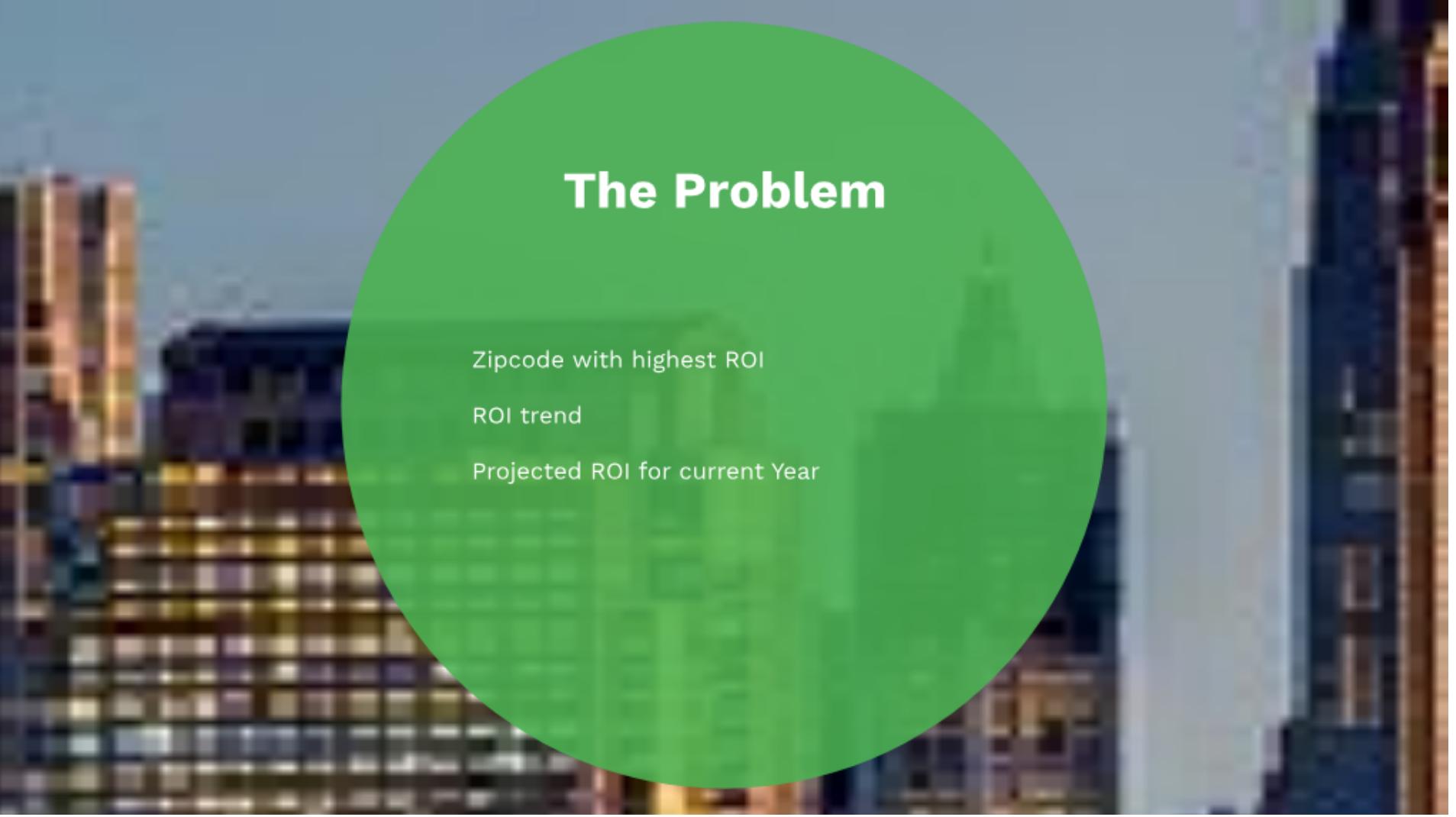
Objective

To generate highest profit
by renting houses

The Problem

Airbnb

Zillow



The Problem

- Zipcode with highest ROI

- ROI trend

- Projected ROI for current Year



AirBnb

Listing prices of houses

Zipcode of houses

Property type



Zillow

Cost of Houses

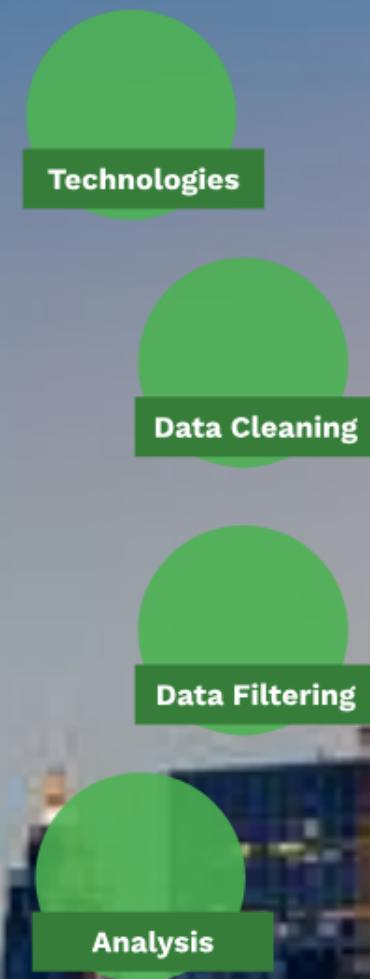
Cost history of Houses

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Approch



Technologies

Data Cleaning

Data Filtering

Analysis

Technologies Used

Python 3.6.2

Open source Data Analytics and
Visualization libraries

HTML

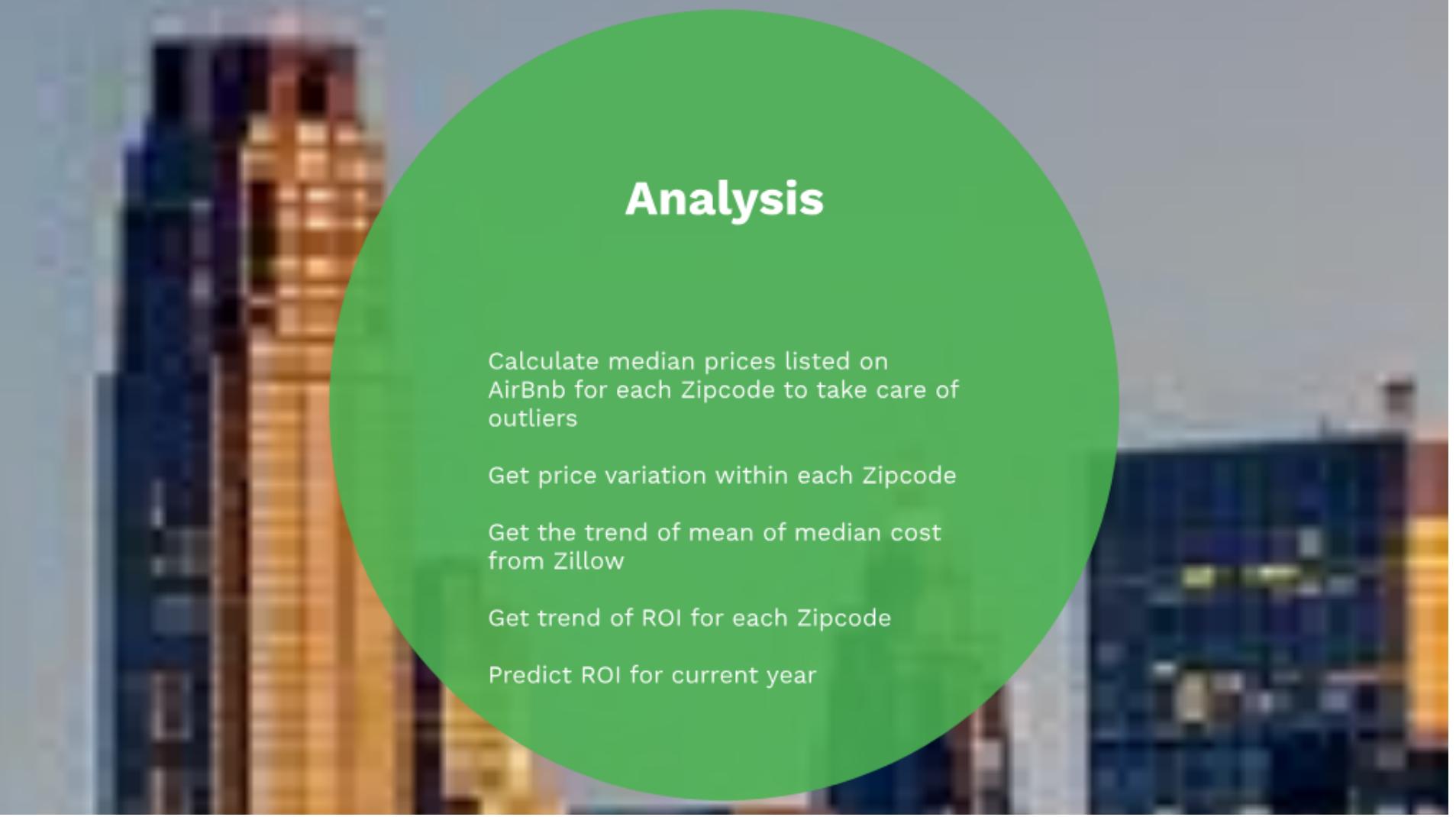
Data Cleaning

Remove unwanted columns from both datasets
e.g. listing_url, host_has_profile_pic

Data Filtering

Filter out the irrelevant records if any
e.g. Zipcodes of other city, Zipcodes
having less than ten records

Impute data for missing records.



Analysis

Calculate median prices listed on AirBnb for each Zipcode to take care of outliers

Get price variation within each Zipcode

Get the trend of mean of median cost from Zillow

Get trend of ROI for each Zipcode

Predict ROI for current year

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Analysis

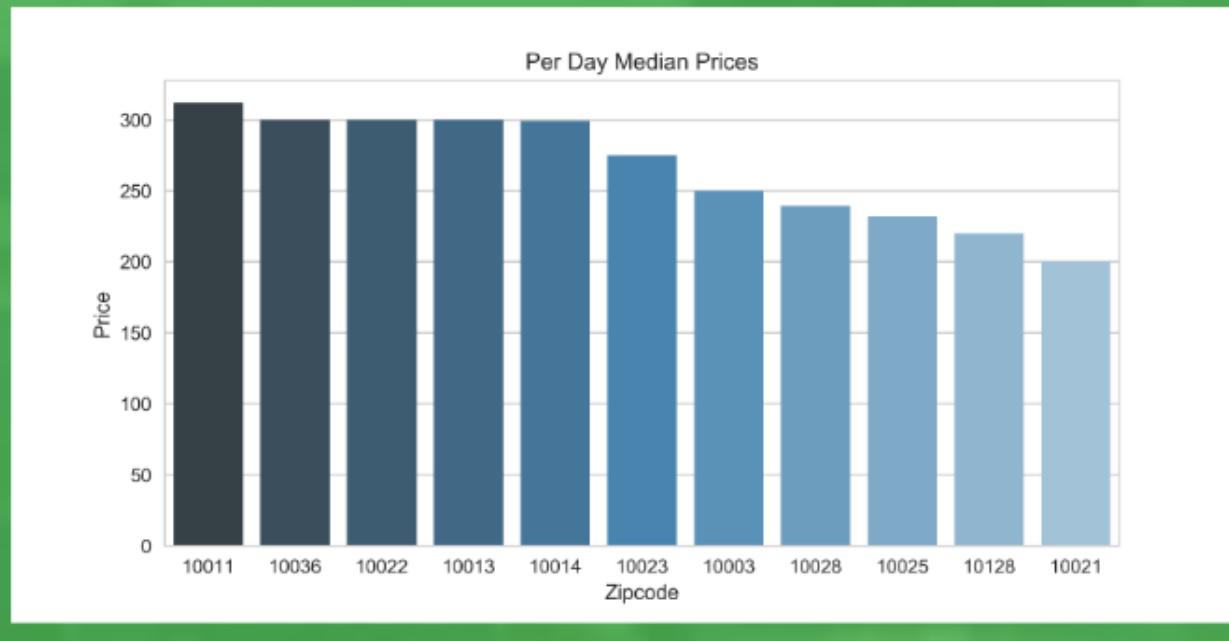


AirBnb Prices

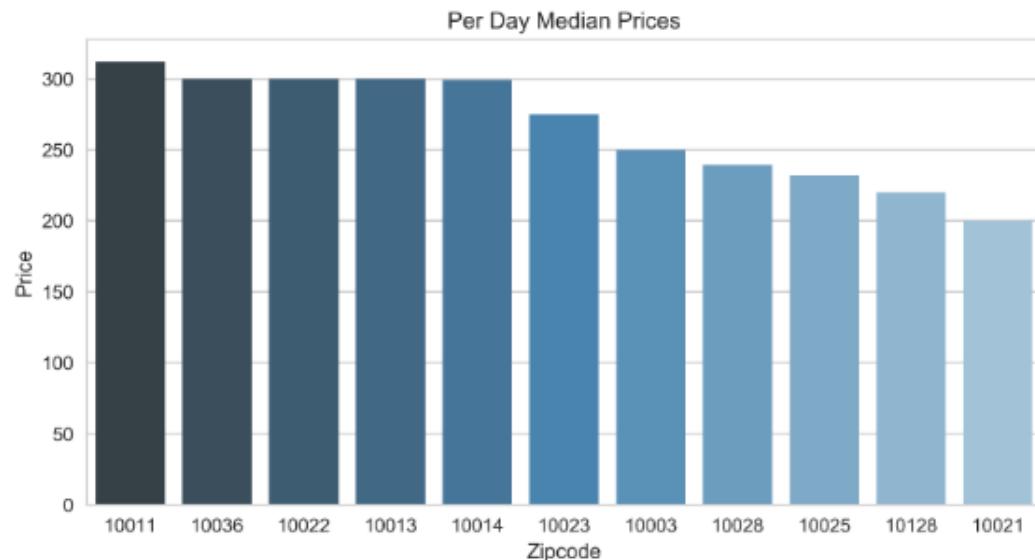
AirBnb Price Variation

Cost of Houses

AirBnb: Median Prices



AirBnb: Median Prices



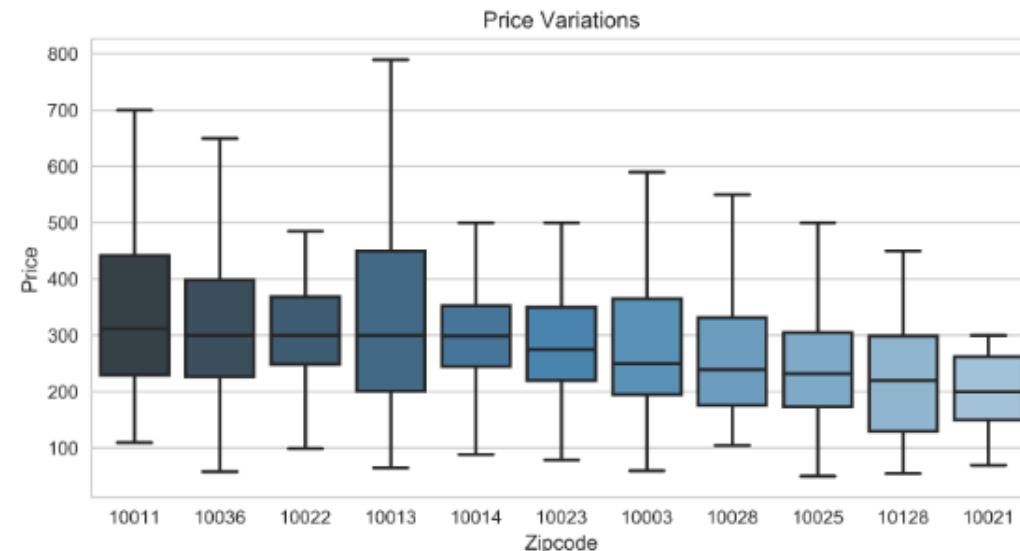
10011, 10036,
10022, 10013
and 10014
having highest
listed prices

AirBnb: Price Variation

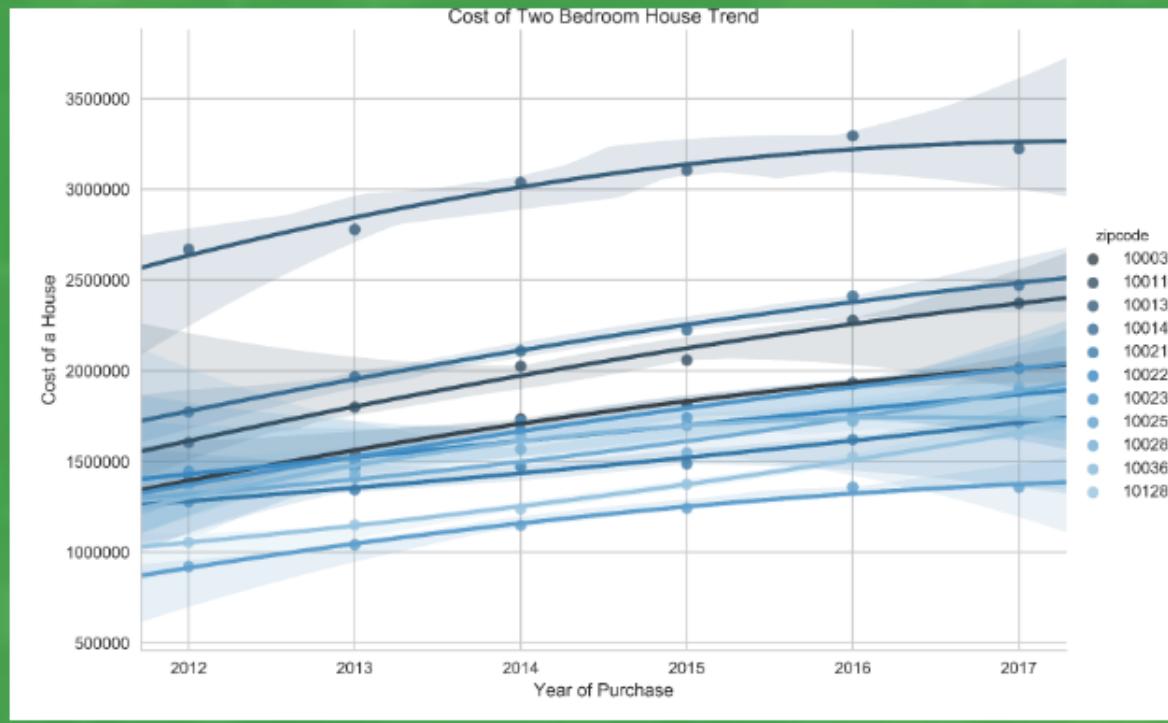


AirBnb: Price Variation

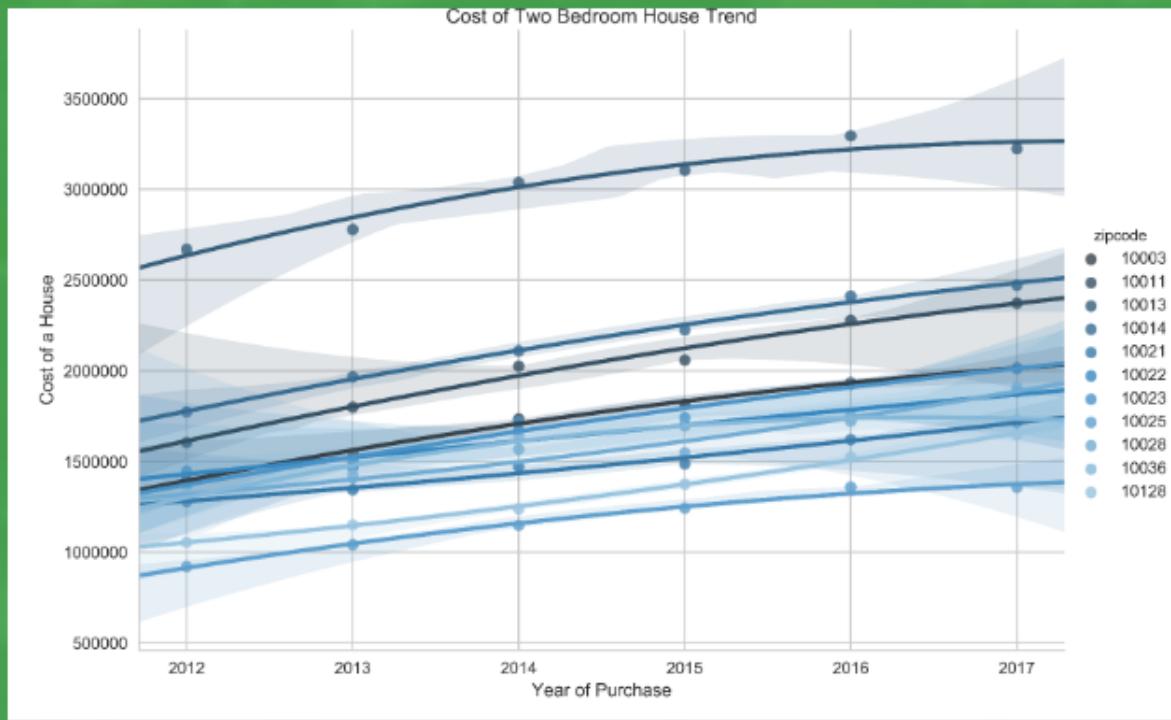
Prices variations
are higher for
10011 for 10013
of five Zipcodes



Zillow: Cost Trends



Zillow: Cost Trends



Median cost is decreasing for 10036 in last few years

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Recommendation

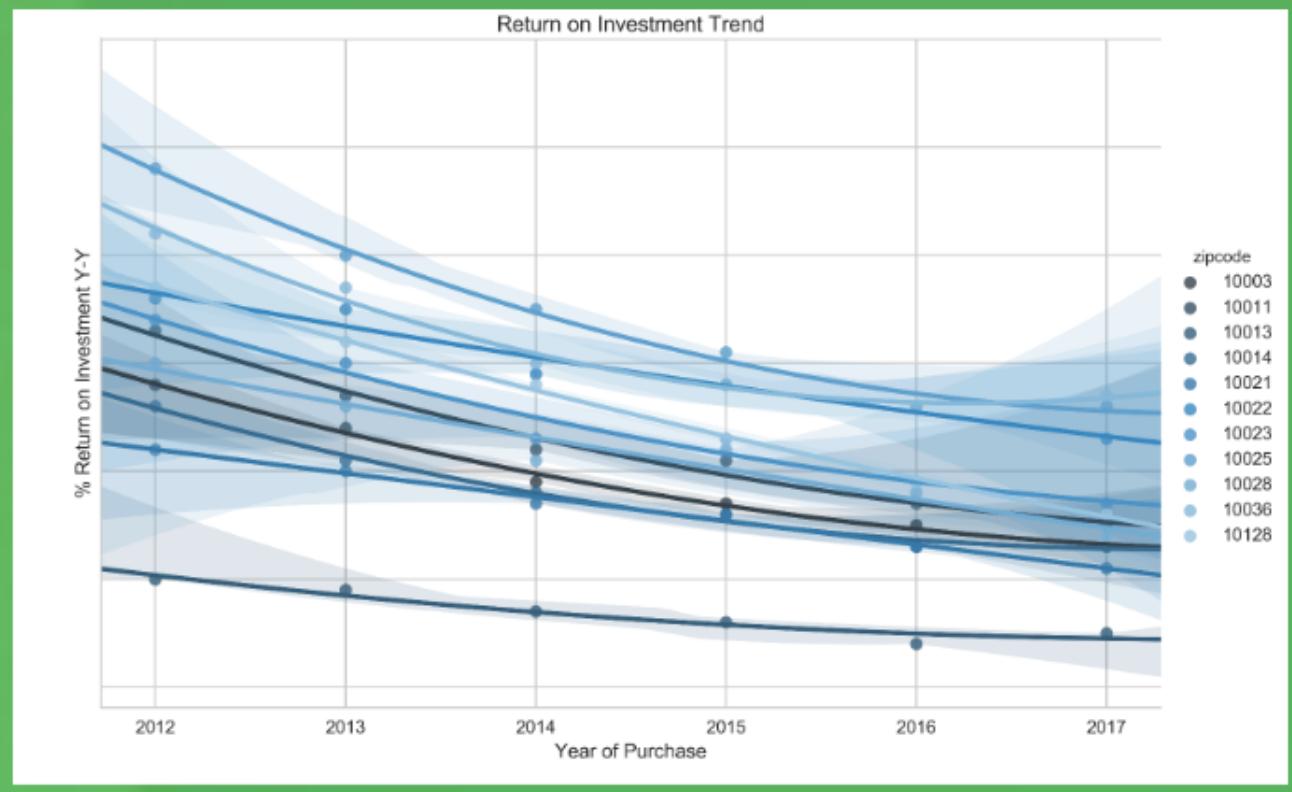


Return on Investment



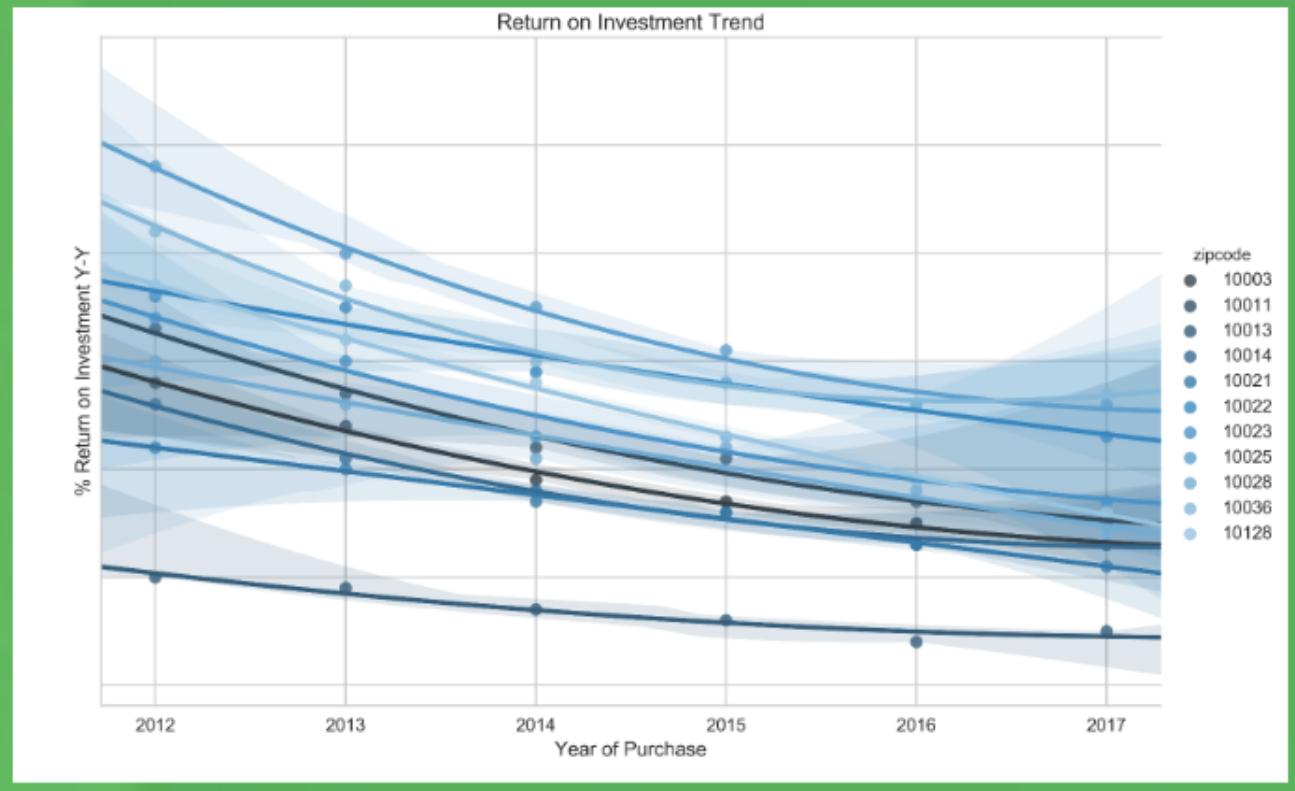
ROI for Current Year

Return On Investment Trend



Return On Investment Trend

For 10036 ROI is increasing in last two years



Projection for Current Year



Projection for Current Year



10036
would give
highest ROI

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