The FAB5
HOUSING

PRESENTED BY: SEOBIN YOON, MARK CHUA, FAHAR ZAHEER, STEPHANIE NICKERSON, & THOMAS JOHNSON

Median Housing Price & Income in 2017 - 2019

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Background & Objectives

Background:

- The top 10 metropolitan statistical cities:
  New York, Los Angeles, Chicago, Dallas, Houston,
  Washington DC, Miami, Philadelphia, Atlanta, Phoenix.
- Data Sources:
  - US median household incomes (Census Bureau)
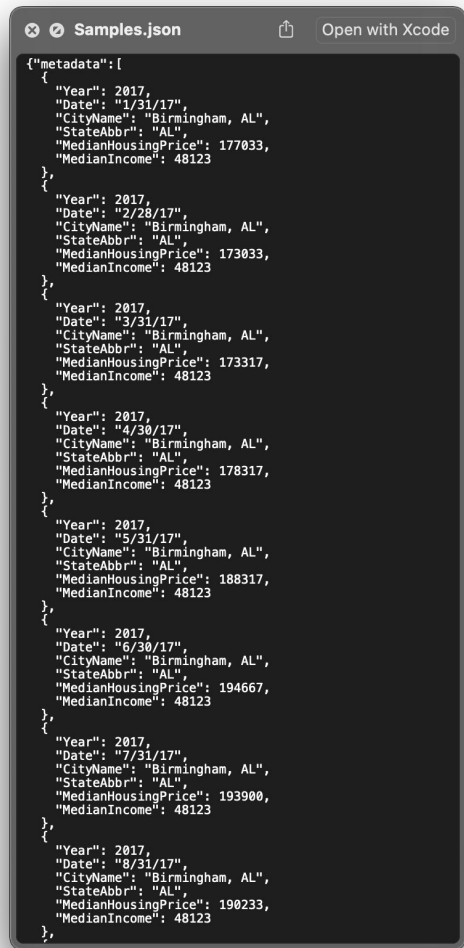 - US Median Housing Price (Zillow)

Project Objectives:

- Observe the trends of housing price & income for 2017 - 2019
- Compare the US top 10 metropolitan cities'
- Provide information for those who are interested in relocation or investing

Data Integration

Data Cleaning (Extract & Transform):

- Pivot & join tables in PostgreSQL

- Connect Postgres database to flask

- Query data using SQLAlchemy and output the
  data as a JSON file

Samples.json   Open with Xcode

{"metadata":[
{
    "Year": 2017,
    "Date": "1/31/17",
    "CityName": "Birmingham, AL",
    "StateAbbr": "AL",
    "MedianHousingPrice": 177033,
    "MedianIncome": 48123
},
{
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    "Date": "2/28/17",
    "CityName": "Birmingham, AL",
    "StateAbbr": "AL",
    "MedianHousingPrice": 173033,
    "MedianIncome": 48123
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    "Year": 2017,
    "Date": "3/31/17",
    "CityName": "Birmingham, AL",
    "StateAbbr": "AL",
    "MedianHousingPrice": 173317,
    "MedianIncome": 48123
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    "Date": "4/30/17",
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    "StateAbbr": "AL",
    "MedianHousingPrice": 178317,
    "MedianIncome": 48123
},
{
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    "Date": "5/31/17",
    "CityName": "Birmingham, AL",
    "StateAbbr": "AL",
    "MedianHousingPrice": 188317,
    "MedianIncome": 48123
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{
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    "Date": "6/30/17",
    "CityName": "Birmingham, AL",
    "StateAbbr": "AL",
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    "MedianIncome": 48123
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    "Date": "7/31/17",
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    "StateAbbr": "AL",
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    "MedianIncome": 48123
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    "CityName": "Birmingham, AL",
    "StateAbbr": "AL",
    "MedianHousingPrice": 190233,
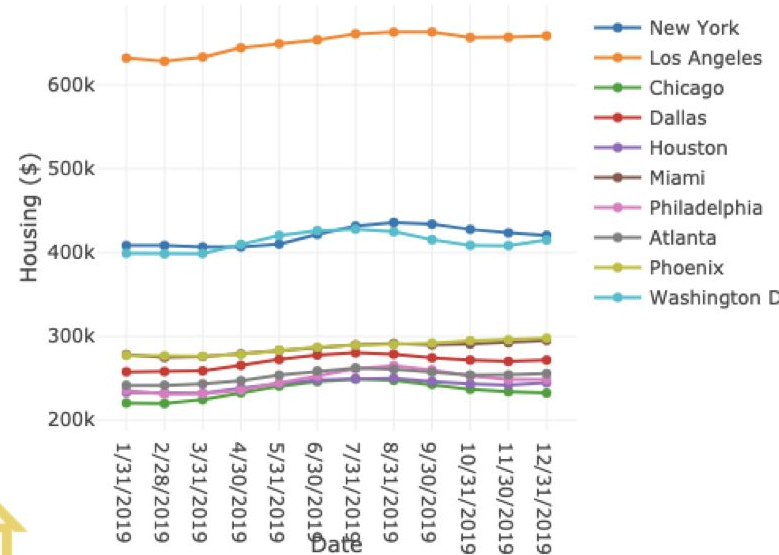   "MedianIncome": 48123
},

Data Visualization

INTERACTIVE DEMO

Who's making the BIG BUCKS?

Between 2017 and 2019 Los Angeles have had the highest median income of all the 10 cities.

That high income also comes with the highest median housing prices.
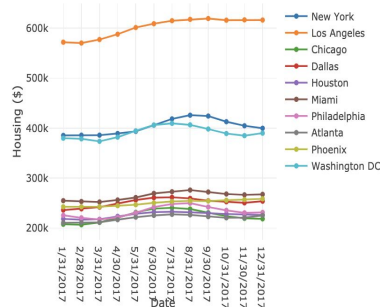
Data Analysis

- Miami consistently has the **lowest** median income but not the lowest median house price.
- Chicago had the **lowest** median **house price** each year between 2017 and 2019.
- In many ways the Atlanta is nondescript. Median income was middle of the road all three years and so was the median house price.
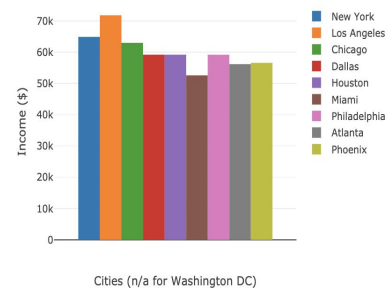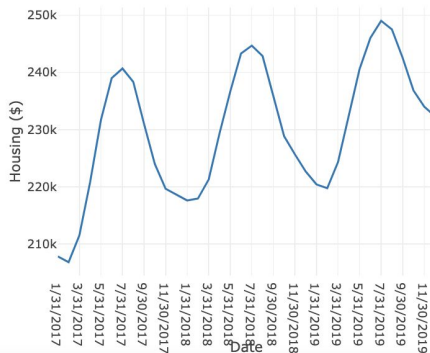
Data Analysis

- General Increase over the year
- Housing prices typically increase during summer and decrease in winter except the cities where have less impact on winter
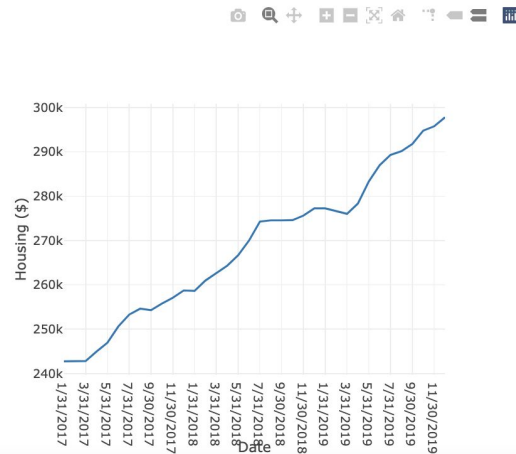
See by City:
[Chicago, IL ▾]
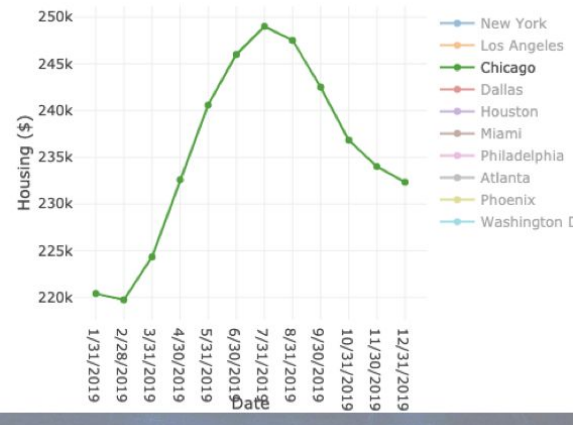
Median Housing Price of the Selected City

See by City:
[Phoenix, AZ ▾]

Median Housing Price of the Selected City

Where do you get the most bang for your buck?

If beautiful summers and cold winters are appealing to you, look no further than the Chicago, Illinois. With the lowest median home prices but the third highest incomes, your money goes further in the Windy City.

Future Prospects

- ○ Our project provides insights for those who are interested in housing prices of big cities
- ○ Our project may potentially provide the impact of Covid-19 pandemic to housing price and income as the data becomes available.

Thank you!
Any Questions...?