**Project Title –** “Getting’ a piece of the Py” – House Prices in the US

**Team Members**

* + Kate Hoyos
  + Javier Benitez
  + Mugdha Vaidya
  + Tyler McBeth

**Project Description**

This project will explore the potential drivers of home prices and consumer buying trends by geographic regions in the United States.

**Research Considerations to Answer**

Potential inputs to home prices (to reviewed and potentially scoped down):

1. Stock Market – S&P
2. Government Policy (Interest Rates, Fannie Mae)
3. Consumer Confidence
4. Employment Rates
5. GDP
6. FDI
7. Immigration trends
8. Social network influences on home buying
9. *etc…*

**Data Sources**

* **Real Estate**
  + Wells Fargo Mortgage
  + Zillow (or substitute Real Estate sector)
  + Trulia
* **Financials**
  + Bloomberg
  + World Bank
  + Alpha Vantage
* **Government Data**
  + Census.gov
  + BLS

**Rough Breakdown of tasks**

1. Group - Pull Zillow data on home prices, Y, by geographic region in the US, export to csv.
2. Individual - Each member of the team chooses one potential input, X, monthly.
   1. Consider data range as part of analysis (may influence each individual’s analysis)
3. Individual - Pull X data from APIs
4. Individual - Conduct analysis to determine impact of X on Y
5. Group - Consolidate and report out

**Responsibilities**

* Javier
  + Input – Stock market – S&P
  + Potentially look at REITs, Real Estate Index if Zillow data doesn’t pan out
* Mugdha
  + Input - FDI
* Kate
  + Input – Employment Rates!!!
* Tyler
  + Investigate availability and breakdown of Zillow data, Fannie, Freddie, real estate tax data
  + Input – Feds Funds Rate, Fannie Mae

Questions to answer

By Sunday

* Correlation between X & Y
  + Scatter plots
  + Line charts
* ANOVA between Regions

By Wednesday

* Regression analysis on inputs
* Evaluate largest influencers
  + Outlier data points – anomalies in data

By Thursday/Friday

* Write up
* Presentation