Florida Real Estate Locator

W209 Summer '22 | Instructor Annette Greiner

By John Clark, Ricollis Jones, Matt Lauritzen, Anqi Liu, Kevin Ng

The Business Challenge

Florida's residential real estate market has seen a influx of interest since COVID, but given the number of available listings, it can be difficult for a potential homebuyer to narrow down their search.

- A potential buyer might have multiple parameters that are a constraint but not know where to start

- It is not easy to compare larger areas (i.e. entire zip codes, towns, etc.) with one another on sites such as Zillow or Redfin

- Geographically difficult to visualize to narrow down zip codes

Target audience: a homeowner or investor looking to narrow down their search to specific zip codes in Florida

A List Of Tasks

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Tasks that a potential buyer would have include the following:

- Determine the price of a house in different communities in Florida
- Determine areas with the highest historical price appreciation
- Determine price and appreciation for homes with and without water views
- Determine zip codes with the best schools
- Determine crime rates in different zip codes
- Determine the lowest average days a listing is on Zillow

Our Solution

We provide an **interactive portal** that **aggregates and presents information** to home buyers and investors
- Primarily done through **choropleths** combined with **other charts**
- Interactive visualization features to **allow users to filter easily**
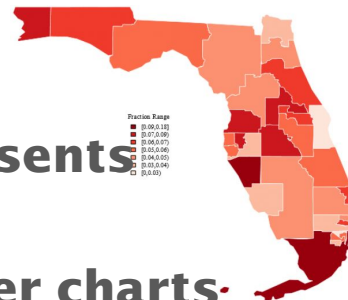
Why is our solution is **the best one for tasks+users+data?**
- Users may not be sophisticated; **we needed something simple**
- Tables, bar charts and choropleth maps are **intuitive and easy to understand** with some instructions on how to navigate
- We provided **almost all the most heavily requested features** by our users in the usability testing

Our Choice Of Tools

- Data obtained from Zillow.com API from Rapid API (https://rapidapi.com/apimaker/api/zillow-com)
- Data munging - Python
- Web site developed using Flask and HTML
- Development work conducted using Jupyter Notebooks, Google Colab, and Visual Studio Code
- Version 1- Python and Altair
- Version 2 - Tableau
- Version control - Github

Demo - Version 1

Usability Testing

Our usability testing identified numerous opportunities for improvement, which we ranked based on level of effort and benefits

Musts
- Make sliders easier to operate and place on top of the page
- Provide much more detailed explanations and instructions for users
- Add more content to the tables vs. just having the top five
- Address inconsistency between school scatterplot and table

Shoulds
- Provide better color variation in choropleths
- Add zoom functionality to choropleths
- Remove market statistics page
- Move tables to the left of choropleths
- Add titles to tables
- Provide ability to search by city name
- Add a page to show crime rates
- Create multivariate search, combining multiple pages into one
- Provide brush functionality on Schools page
- Explain why cities come up multiple times

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Demo - Version 2

Thank you

Email:
johclark29@berkeley.edu

Presentation Flow

John
- Slides 1 - 6

Matt
- V1 Index and Intro, School Rating, Market Stats

Anqi
- V1 House Price, Price Per Square Foot, Price Appreciation

John
- Usability Study

Ricollis
- V2 Index and Intro, School Ratings, Days Listed

Kevin
- V2 Appreciation, Crime Statistics, and Wrap Up

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