



# Final Sprint Presentation

<https://urban-advisor.herokuapp.com/>

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# Project Description

Urban Advisor is a convenient tool that informs users whether they can achieve their desired lifestyle in multiple cities around the United States based on various input such as their income and lifestyle. Using cost-of-living data from cities, Urban Advisor lets users compare up to the three cities at a time to determine whether these cities meet their needs.

We explored the following user stories:

- A fresh graduate who needs to compare job offers in various cities to determine where they can have the best quality of life
- A young female freelancer who cares about her safety living alone.
- A young family who is considering renting or buying a place to live inside the city or in a suburb
- An elder man interested in medical resources and senior care
- A relocating mother who wants to find an area with good schooling options for her children
- A travel business operator who cares about food and culture

# Context and Background

- Insight into quality of living in multiple cities
- Users can compare up to 3 cities from a list of 6
- Features included are:
  - property price
  - cost of childcare
  - price & quality of healthcare services,
  - survey data on healthcare, crime, and food options
- Generates tailored analytic reports

The end-user for this project is anyone looking for advice or information regarding living quality in a major metropolitan area in the U.S. based on their current household needs and income.

# Project Goals, Targets, Functions, and Features

The primary goal of this project was to build an accessible and user friendly web-application to provide decision support to individuals looking to relocate and weighing a variety of factors.

The user base that the product is targeted towards is a wide range of people who want to compare different locations they may consider as a possible area to relocate to according to how well it fits their lifestyle and preferences.

The web-application boasts the following functionalities:

- An intake questionnaire to gauge what users value when looking for an area to relocate to
- A display of metrics that explain how certain areas align with a users values
- Graphical visualizations providing comparisons of alternative locations

Some unique features of the application that sets it apart are:

- A streamlined process to gauge user preferences and lifestyle factors that is more in-depth than alternatives
- The ability to compare up to 3 cities at a time against common metrics
- Comparison charts to provide a quantitative display of how locations stack up for lifestyle preferences

# System Build

- IDEs and Tools
  - IDE: PyCharm
  - Tools: Discord, GitLab, Kanban Board, Balsamiq
  - Database: SQLite
- Technical Details/Design Choices
  - Front-end Tech Stack: Bootstrap, HTML/CSS, JQuery, Chart.js, Django Template language
  - Back-end Framework: Django
- Difficulties
  - Collecting consistent data for cities in the lists
  - Some of special living options (for example, shopping habit) are difficult to find a calculating pattern from questions and also not varied among cities.

# Lessons Learned and Reflection

Creating Urban Advisor provided all the members of our team with valuable experience managing a project using the AGILE software development framework. The framework provided useful insight into whether we were making suitable structured progress toward completing our finished product

We gained important technical knowledge into the implementation of a project of this nature

We gained an appreciation for the work required to maintain a tool like this. We are compelled to regularly update the data for our tool to be accurate.

- For example, the price of gasoline has changed significantly since we first gathered the data in September.

# Data

Sourced across difference data aggregation sites and verified with the Bureau of Labor Statistics

## BLS.gov

- Consumer Expenditure Index
- Consumer Price Index
- Gov. Databases
  - Inflation & Prices
  - Employment Pay & Benefits
  - Spending & Satisfaction

## Sources

- Salary
  - Smartasset.com
- Cost of Living
  - Payscale.com
  - Shyftmoving.com
  - Numbeo.com
- Housing
  - Zillow.com
  - Sofi.com
  - Rate.com
- Childcare/Healthcare/Crime Rate
  - Numbeo.com
- Food Options
  - trulia.com

# Issue Tracking

- Screenshots to show errors
- Assignee to communicate issue with the appropriate team member
- Milestones to group issues by relevance
  - Sprint 1/2/3
- Due Dates to ensure timely progress
- Labels to follow progress
  - TODO
  - Doing
  - Done!

The screenshot shows a Jira issue tracking interface for the 'Cost of Living App'. The breadcrumb path is 'Cost of Living App > Cost Of Living > Issues'. At the top, there are filters for 'Open 0', 'Closed 11', and 'All 11'. A search bar is present with the text 'Search or filter results...'. Below the search bar, there is a list of 11 issues. Each issue entry includes a title, a status (e.g., 'CLOSED'), a creation time, and a creator. The issues are sorted by 'Created date' in descending order. The issues listed are:

- #11: Fix code to work for any number of user preferences. Status: CLOSED. Created 4 hours ago by Srijja Gurijala.
- #10: Make sure logo is centered to the page. Status: CLOSED. Created 20 hours ago by Chris Luersen. Labels: Sprint 3, Dec 5, 2021, TODO.
- #9: Cents displaying incorrectly on results page monthly total. Status: CLOSED. Created 2 weeks ago by Steven Barnett.
- #8: add cost of clothing in each city in the database. Status: CLOSED. Created 2 weeks ago by Srijja Gurijala. Labels: Nov 23, 2021, Doing.
- #7: bugs existed in view.py when users do not select property option. Status: CLOSED. Created 2 weeks ago by Xu Wang. Labels: Sprint 3, Nov 21, 2021, Done!
- #6: Use a file level variable to store city list in calculator.py. Status: CLOSED. Created 2 weeks ago by Xu Wang. Labels: Sprint 3, Nov 27, 2021, TODO.
- #5: The city names in database column are not aligned with names displayed in the webpages. Status: CLOSED. Created 2 weeks ago by Xu Wang. Labels: Sprint 3, Nov 22, 2021, TODO.
- #4: Sync generated db.sqlite3 ID's with key. Status: CLOSED. Created 3 weeks ago by Chris Luersen. Labels: Sprint 2, TODO.
- #3: Standardize responses to questionnaire questions. Status: CLOSED. Created 1 month ago by Steven Barnett.
- #2: Connect Django model to db.sqlite3. Status: CLOSED. Created 1 month ago by Chris Luersen. Labels: Sprint 1.
- #1: implement ajax request. Status: CLOSED. Created 1 month ago by Xu Wang. Labels: Sprint 1.



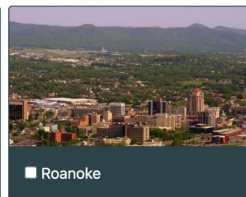
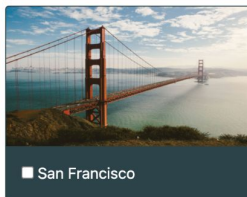
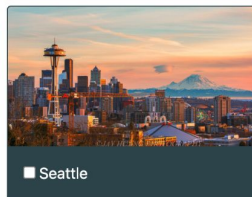
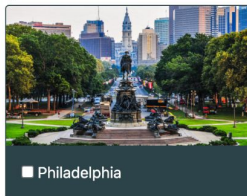


# Demo



Please answer the following questions for us to better evaluate your needs

Choose cities to compare (maximum 3)\*:



What are you looking for?

Cost of Living

Property Price

Childcare

Healthcare

Crime Rate

Food Options