



Project 3 Presentation:

Real Overview of Budget and Alternatives (ROBA) Dashboard

Helping households cope with rising costs

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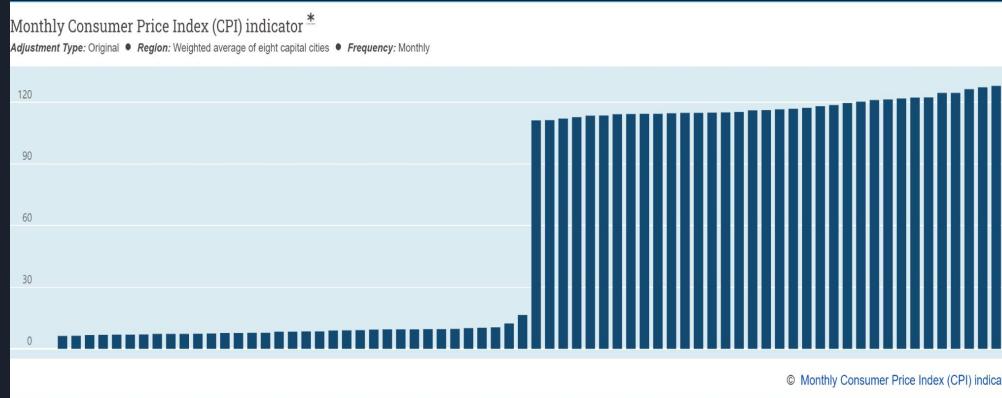
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Rationale: Rising daily living costs due to inflation



Australia experienced record levels of inflation in 2022 in comparison to previous years as a result of the COVID-19 pandemic.

The Reserve bank of Australia's inflation target is to keep annual consumer price inflation between 2 and 3 per cent, on average, over time. Although the federal government and Reserve Bank forecasted that inflation would peak at 7.75% in the December quarter of 2022.

Households are set to bear the brunt of price increases. *How can we help households cope?*

Overview

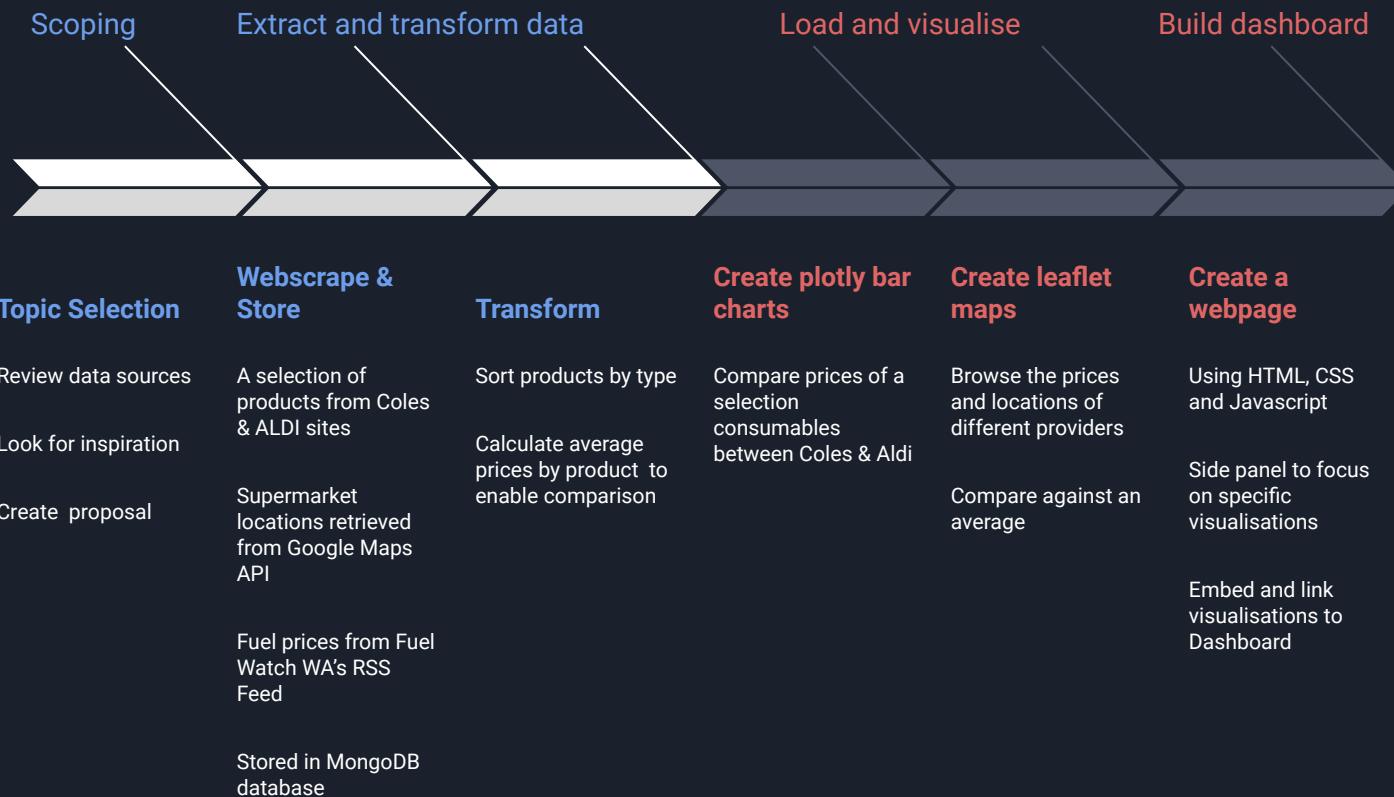
This project seeks to tell a story through an interactive dashboard that examines the inflation rate among various categories of household goods.

Several visualisations are provided to help users to choose the best priced location for either food products or fuel.

The ROBA dashboard was delivered through a Python Flask-powered API that was supported by HTML/CSS, JavaScript, Leaflet, and MongoDB. jQuery, a Javascript library that was not covered, was used to improve the feeding of data into our visualisations.

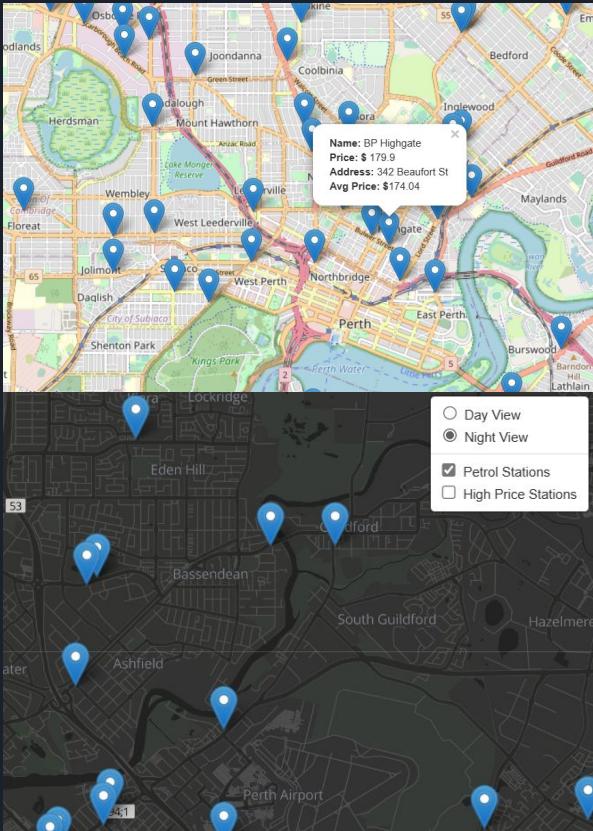


Process:



Petrol Stations of Perth:

Explore the map to find fuel prices across the Perth Metro



A leaflet map used to display the petrol stations around the Perth Metro.

Users can mouse over each station's marker to see:

- (Station's) Name
- Address
- Price of petrol
- Average price across all stations

'Day' and 'Night' maps for better views on the move.

Daily updates are possible via a flask app

- Specify a new MongoDB collection in code.
- Scrape each day's data to update the map.

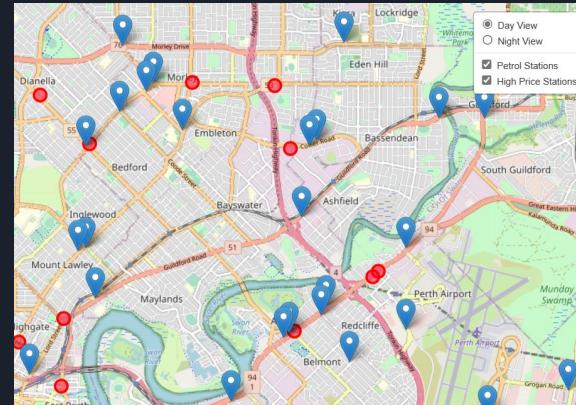
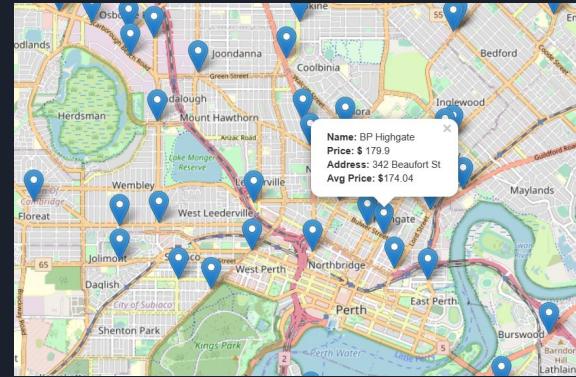
Petrol Stations of Perth: User interaction

Compare fuel prices between stations and against a daily average.

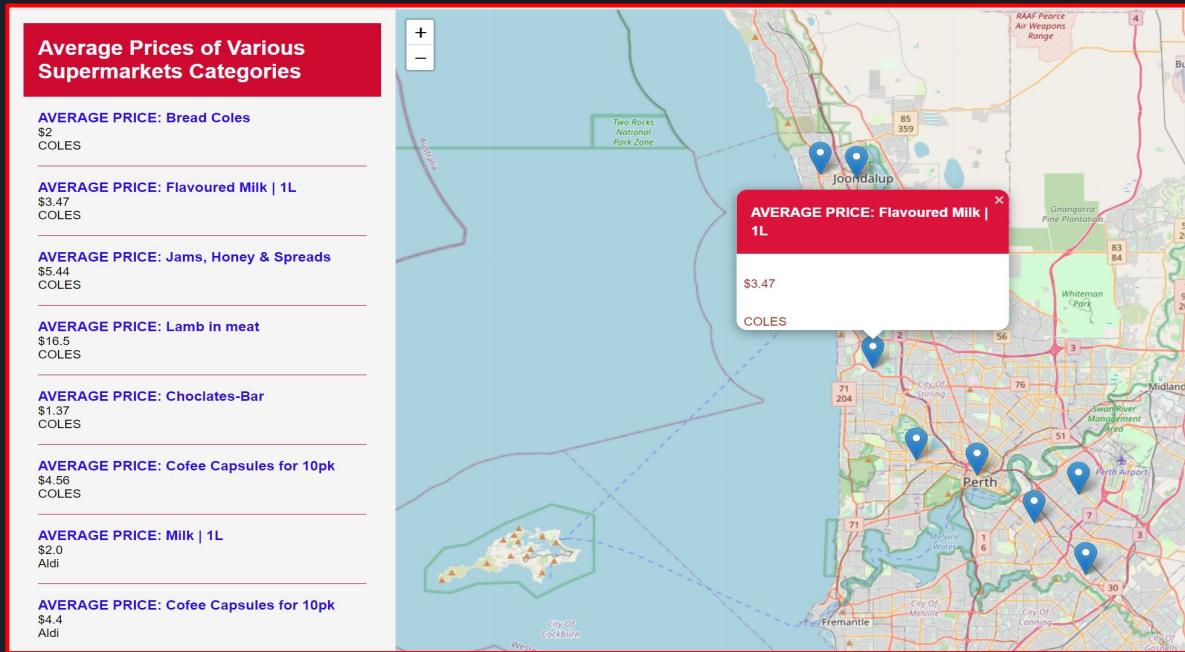
Use overlay views to include or exclude 'High Price Stations'.

- Shown as red circle markers
- Price > Daily Avg Price

Adds a price comparison tool to FuelWatch WA's existing functions

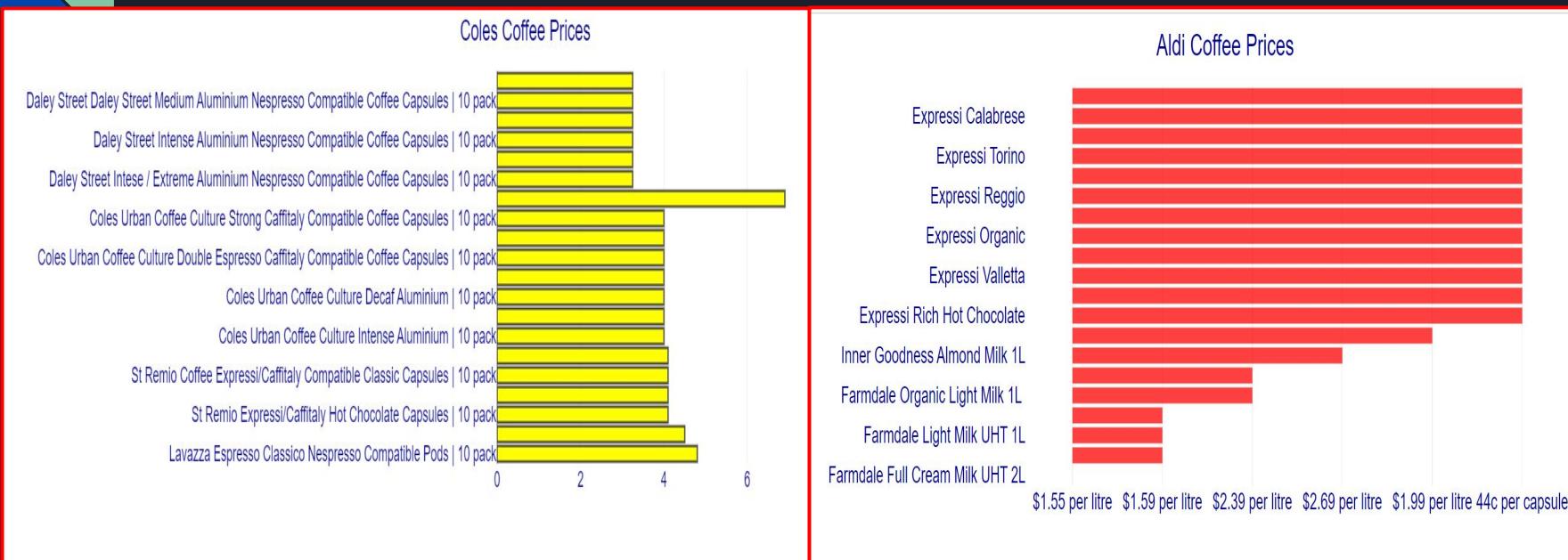


Visualization: Average Prices Across SuperMarkets



- This map illustrates the average prices of different supermarket categories.
- The left-side panel displays the average prices of Coles and Aldi in selected categories.
- By clicking on a specific heading in our dashboard, the user will be directed to the corresponding category, and on marker click a pop-up will appear.
- The pop-up displays the specific title, store name and average prices of that category.
- This allows for easy comparison of prices across different supermarkets and categories.
- This feature is interactive and user-friendly, providing a clear and efficient way to understand the data.

Visualization: Prices Comparison of 10-pack Coffee Capsules



- 1.The code presented creates a bar chart comparing the prices of a 10 pack of coffee capsules from two different stores, Aldi and Coles.
- 2.The data for the chart is first sorted by price in descending order, then the top 20 items are selected for plotting.
- 3.The array is then reversed to accommodate for Plotly's defaults.
- 4.A trace for the Coles data is created, with the x-axis displaying the prices, the y-axis displaying the title of the product, and the color of the bars set to a bright yellow.
- 5.The layout of the chart includes a title, specific font settings for the x and y-axis tick labels, and precise margins for the left, right, top, and bottom of the chart.
- 6.The x-axis's tick values vary from 0 to 6 dollars and the y-axis's tick values vary from 44c per capsule to 4.4 dollars for the pack of 10
- 7.The chart is then rendered to the "plot" div tag using Plotly.

Thank you for
tuning in!

Have a play-around:

[https://shanch3n.github.io/Project3-Grp2/dashboar](https://shanch3n.github.io/Project3-Grp2/dashboard.html)d.html

Suggestions?

Questions?

