

## Brainstorm possible project ideas

### Option 1) Rich guy in business - Aus BOD, retail turnover by state , by industry

- Question (Find the best state for a particular industry to set up a business, <https://www.abs.gov.au/statistics/industry/retail-and-wholesale-trade/retail-trade-australia/latest-release#data-downloads>)

### Option 2) Coffee shops - how sales can be improved.

- Compare (yelp) what factors make a successful shop across australia
- Why some coffee shops are getting a better ratings
- Sales data, (black coffee, white coffee etc) consumer preferences.
- Yelp (<https://www.yelp.com/developers>)

### Option 3) Credit Card, fraud detection

- [IBM Transactions for Anti Money Laundering \(AML\) \(kaggle.com\)](#)
- More 2fa less fraud.

### Option 4) OECD Dataset (<https://data.oecd.org/api/>)

- How was the working hours changed due to covid?
- How does the working hours / covid affect the Better Life index ([https://www.oecd-ilibrary.org/social-issues-migration-health/data/better-life-index/better-life-index-2015\\_data-00823/](https://www.oecd-ilibrary.org/social-issues-migration-health/data/better-life-index/better-life-index-2015_data-00823/))
- How has well
- How has changes in work habits correlate to changes in gdp

### Option 5) Online streaming

- <https://www.kaggle.com/datasets/rajatkumar30/streaming-application-viewership>
- Question (spike 2019 - inline with covid)
- Question (relationship between age and viewing time)
- Question (age, gender, country).

## Project Title

Retail Business in Australia

## Team Members:

- Alex Feeney
- Gayathripriya Vijaykumar
- Vy Nguyen
- Benjamin Wong

## Project Description/Outline

We are an advisor company hired by a wealthy foreign investor looking to set up a business in Australia.

## Research Questions to Answer

- Question 1: Which state would be best to setup a retail business?(Retail turnover/Per Population) Gayathri
- Question 2: Within the calendar year what is the best month/season to open a retail business? Alex
- Question 3: Which industry is forecasted to have the greatest growth? Ben
- Question 4: Within the chosen state, which industry has the highest revenue? Vy
- Question 5: How much variance is in sales/turnover of different industries?
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- GV:list the number of retail departments and compare the revenue/retail turnover at various seasons of the year. Data is in months. Will do months. Bar chart. Scatter plot ,trend line, stacked bar chart
- GV:Total retail industry turnover per year as well as per season.
- What month and what industry is the highest grossing retail industry
- Retail industry by state

## Datasets to Be Used

- from January 2013 to Present

Data Source 1 - (ABS)

<https://www.abs.gov.au/statistics/industry/retail-and-wholesale-trade/retail-trade-australia/latest-release#data-downloads>

Seasonally adjusted:

<https://www.abs.gov.au/methodologies/retail-trade-australia-methodology/jun-2023#seasonal-adjustment-and-trend-estimation>

## Rough Breakdown of Tasks

Task Number	Description	Assigned To	Due Date	Status	Completed Date
1	Commit Data sets to main branch.	Everyone	9/11/2023	Completed	9/11/2023
2	Put datasets into panda dataframes	Everyone	9/11/2023	Completed	9/11/2023
3	Create own branch for dev work	Everyone	9/11/2023	Completed	9/11/2023
4	Clean and modify Data	Everyone	13/11/2023	In progress	
5	<b>Question 1 (visualisations)</b> - Which state would be best to setup a retail business?	Gayathripriya	15/11/2023	In progress	
6	<b>Question 2 (visualisations)</b> - Within the calendar year what is the best month/season to set up the retail business?	Alex	15/11/2023	In progress	
7	<b>Question 3 (visualisations)</b> - Which industry is forecasted to have the greatest growth?	Ben	15/11/2023	In progress	
8	<b>Question 4 (visualisations)</b> - Within the chosen state, which industry is the most profitable to setup?	Vy	15/11/2023	Not started	

10	Testing All Python Code	Everyone	16/11/2023	Not started	
11	Write up Script	Everyone	16/11/2023	Not started	
12	Make Powerpoint	Everyone	16/11/2023	Not started	
13	Give Presentation	Everyone	20/11/2023	Not started	