**Project 1: Proposal Template**

## Group Members

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**Title:** IRON ore Price VS Perth House prices

### Project Description/Outline:

The project is about predicting the impact of Iron ore price on Residential prices in Perth. For this project we will utilize ABS and Kaggle datasets of recent years. We will choose to look at the correlation between iron ore prices and property prices by performing statistical analysis

### Research Questions to Answer:

### Is there a correlation between the iron ore price cycle and Perth’s residential property prices?

### How do the iron price rise and fall impact the Perth residential property price weighted average index?

### How does the quarterly price vary over the research time period?

### How does the relation ship between iron ore price rise and fall affect the future of the Perth property market

### Data Sets to be Used:

### [https://explore.data.abs.gov.au/vis?tm=perth%20house%20prices&pg=0&df[ds]=ECONOMY\_TOPICS&df[id]=RPPI&df[ag]=ABS&df[vs]=1.0.0&pd=2008-Q1%2C2021-Q1&dq=2%2B1%2B3.1%2B2%2B3..Q&ly[cl]=REGION&ly[rw]=TIME\_PERIOD&ly[rs]=MEASURE&fc=Measure&vw=tb](https://explore.data.abs.gov.au/vis?tm=perth%20house%20prices&pg=0&df%5bds%5d=ECONOMY_TOPICS&df%5bid%5d=RPPI&df%5bag%5d=ABS&df%5bvs%5d=1.0.0&pd=2008-Q1%2C2021-Q1&dq=2%2B1%2B3.1%2B2%2B3..Q&ly%5bcl%5d=REGION&ly%5brw%5d=TIME_PERIOD&ly%5brs%5d=MEASURE&fc=Measure&vw=tb)

### https://www.worldbank.org/en/research/commodity-markets

### https://www.rba.gov.au/statistics/tables/xls/g01hist.xls

### url1 = "https://api.data.abs.gov.au/data/ABS,RPPI,1.0.0/1.2.5GPER+100.Q?startPeriod=2018-Q4&endPeriod=2021-Q4&dimensionAtObservation=AllDimensions&format=jsondata"

### https://www.kaggle.com/datasets/syuzai/perth-house-prices

### https://files.marketindex.com.au/files/workbooks/commodities-workbook.xlsx

https://www.rba.gov.au/statistics/tables/xls/g01hist.xls<https://www.abs.gov.au/statistics/economy/price-indexes-and-inflation/residential-property-price-indexes-eight-capital-cities/latest-release>

<https://www.abs.gov.au/statistics/economy/price-indexes-and-inflation/international-trade-price-indexes-australia/latest-release>

<https://www.kaggle.com/code/bongjunyoon/prediction-in-iron-ore-price/notebook>

### References:

### <https://www.aussie.com.au/content/dam/aussie/documents/home-loans/aussie_25_years_report.pdf>

<https://www.omi.wa.gov.au/docs/librariesprovider2/archive/economic-and-social-contribution-of-migrants-to-western-australia.pdf?sfvrsn=995124a0_2>

<https://www.therealestateconversation.com.au/news/2022/08/29/corelogic-property-pulse-spring-special-the-long-game-30-years-housing-values>

**Rough Breakdown of Tasks:**

1. Search for ABS and Kaggle datasets – Residential property prices & Iron ore prices.
2. Load datasets on Github.
3. Clean up and combine datasets.
4. Define at what level we want to look at Residential property prices - dependent on Iron ore prices data.
5. Analyse and plot the data to answer our research questions - ~2 plots/graphs per question.
6. Describe/explain plots in the bigger context.
7. Clean up code and upload to Github.
8. Prepare slide presentation and markdown files.