**Project Title:** Crime Analysis in Victoria

**Team Members**

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**Project Description/Outline**

To find out patterns of crime happening around Victoria and the link of crime rate with economic indicators (unemployment rate, inflation rate).

**Research Questions to Answer**

* Find the common types of crime occurring in Victoria- The type/category of crime committed the most.
* The Local Government Area (LGA) with most crimes.
* The rate of crime per LGA over the last 10 years
* Find the link between economic factors such as inflation, unemployment rate with crime rates. (from 2019-2023).

**Datasets to Be Used**

* Crime Statistics data from Crime Statistics Agency (CSA)-data available in Victoria Police website
* Monthly inflation and unemployment rate from ABS

**Rough Breakdown of Tasks**

* Getting the data from relevant sources (ABS, CSA)
* Data cleaning/filtering data
* Identify data variables of interest.
* Create data frames.
* Creating relevant charts to visualise data:

1. Bar Chart for crime rate per 100,000 population for all LGAs -year 2023
2. Bar Chart for crime rate per 100,000 population for Top 10 LGAs- year 2023
3. Line charts of crime rate per 100,000 population for Top 10 LGAs -years 2014-2023
4. Pie chart for major divisions of Offences by Incidents Recorded-year 2023
5. Bar chart for top 10 Offence Subdivisions by Incidents Recorded-year 2023
6. Stacked Bar Chart for Top 10 LGAs by major divisions of Offences -year 2023
7. Line charts for major divisions of Offences by Incidents Recorded-years 2014-2023

* Regression analysis with ANOVA test or T test to find relationship between economic factors and LGA crime rate per 100,000 population. Independent variables= unemployment rate, inflation rate. Dependent variable = LGA Rate per 100,000 population
* Identifying trends and studying findings from the analysed data
* Writing inferences and conclusions based on our research questions