**Final Project Proposal:**

**Exploring the Influence of Population Growth and Inflation on Crime Rates**

**in the United States**

1. **Overall Goals**

* Correlation Examination: We aim to explore the historical data on population growth, inflation, and crime rates in the United States from 1960 to 2019. From that, we hope that we will be able to find the correlation between population changes and inflation individually, as well as their combined impact on the crime rate. We also pay particular attention to the kinds of crime that are believed to have a strong correlation with population growth and inflation such as theft, violence, robbery, etc.
* Temporal Trends: Our targets will be to identify temporal trends in crime rates and population growth to understand the dynamics over the period. We will investigate if there exists a time frame or events that coincide with notable shifts in the population and crime rate dynamics.
* Policy Implications: Discuss potential policy implications based on the observed relationships between population changes, inflation, and crime rates. We aim to provide insights into how policymakers can use this information to develop strategies for crime prevention and economic stability.
* Data Visualization: We will effectively present our work and findings by utilizing graph tools, charts tools, and other visual aids.
* Prediction: We will utilize prediction tools such as linear regression to forecast potential trends or patterns in crime rates based on population changes and inflation. To enhance the depth of our analysis, our prediction model will undergo thorough testing on diverse data points, encompassing variations in population and inflation. This approach will unveil the intricate behavior of crime rates in response to shifts in population size and inflation.

1. **Sources of Datasets**

* The [United States Crime Rates 1960 to 2019](https://www.disastercenter.com/crime/uscrime.htm) dataset contains information about the rates of different types of crime, the total crime rate, and the population in the following year. The data goes from 1960 to 2019.
* The [US Inflation Dataset (1947 - 2023)](https://www.kaggle.com/datasets/pavankrishnanarne/us-inflation-dataset-1947-present) dataset gives us data on the inflation rates throughout 1947 and 2023.

1. **Group members**

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