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**Comparison of Weather Patterns and Crime in Minneapolis**

**Project Proposal**

Using crime data from opendata.minneapolismn.gov and worldweatheronline.com historical weather information we will research the following questions:

1. Is there a correlation between daily temperature and rates of violent crime in Minneapolis?
   1. Proposed Visuals
      1. Historical year over year violent crime data vs. daily high temperature
      2. Average violent crime by month
2. Is there a correlation between weather patterns and rates of specific types of crime in Minneapolis?
   1. Proposed Visuals
      1. Major weather events (ie: tornado) vs crime rate
      2. Standard deviation of crime rate vs temperature
      3. Comparison of non-violent crime types on adverse weather dates
3. Is there a difference in correlation of weather patterns and crime rates by gender or age?
   1. Proposed Visuals
      1. Breaking out violent crime data and weather data to compare gender crime rates
      2. Breaking out violent crime data and weather data to compare age bracket crime rates
4. Is there a correlation between officer employment statistics and weather patterns?
   1. Proposed Visuals
      1. Officer employment rates by month vs weather by month

Tasks:

1. Pull weather data for past 3 years for Minneapolis
   1. Note adverse weather dates (Tornado, Blizzard)
2. Pull crime data for past 3 years
   1. All crime data for Minnesota
3. Pull Officer employment data for past 3 years
4. Create first data analysis of temperature and violent crime (Assault, Murder, Rape, Armed Robbery)
5. Create second analysis of weather patterns and non-violent crime
   1. Significant weather dates (tornados, blizzards, damaging storms)
   2. Non-violent crime (robbery, theft, vandalism, etc)
6. Compare all crime rates by gender to temperatures
7. Compare all crime rates by age bracket to temperature
8. Compare Officer employment data to temperature

Donny will work on the analysis of violent crime versus temperature.

Elie will work on analysis of major weather events and crime rates.

Teena will work on Analysis of weather and crime rates by demographic.

Ahmed will work on analysis of weather and officer employment rates.