**CRIME RATES IN CANADA**

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**1. Introduction:**

In this analysis, we will explore crime data for Ontario, Manitoba, and British Columbia, focusing on the specific crime of **Robbery**. Our aim is to support the RCMP in their collaboration with local police. We will examine Robbery incidents, identify trends, and make predictions based on the available data. This will help in proactive crime prevention.

**2. Justification for the Power BI Visualization Tool:**

We have chosen Power BI for visualizing this data because it simplifies complex information, presenting it in a way that is easy to understand and comprehend. Power BI provides interactive, clear visuals that help officials to interpret the data. It provides in detail data exploration, making it a useful tool for the RCMP to enhance public safety.

**3. Explanation of Data Analysis / Power BI Visualization Approach:**

Here's how we used Power BI to help the RCMP:

* **Line Chart** - Province Comparison: Created a line chart to compare how much Robbery crime happened in Ontario, Manitoba, and British Columbia in the last 10 years. This chart helps to see which province had more or less crime over years.
* **Stacked Bar Chart** - Top Cities: Using a stacked bar chart, compared the crime rates in the top 3 cities with the most crime in Ontario, Manitoba, and British Columbia over the past 10 years. This chart points out the specific cities with high crime to focus our efforts over those cities.
* **Scatter Plot** - Correlation Analysis: Used a scatter plot to check if there is a connection between the youth and adult crime rates in high crime cities. This can help to understand who is involved in these crimes and plan accordingly.
* **Line Chart with Forecast Trend** - Future Crime Rates: Created a line chart that predicts crime rates for the year 2023 in Ontario, Manitoba, and British Columbia. This can help to prepare strategies in advance to reduce crime effectively.

**4. Report findings:**

**Crime Rate Comparison:**

A graph of a number of people

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* **British Columbia (BC):** In BC, Robbery rates have had their ups and downs. They were the highest in 2012 but dropped significantly by 2017. However, there has been a recent increase in Robbery incidents in 2022, suggesting a potential challenge that requires attention.
* **Manitoba (MB):** Manitoba has seen somewhat stable Robbery rates with minor shifts. Recently, there has been a gradual increase, reaching its highest point in 2022. This suggests a need for vigilance and measures to prevent further increases.
* **Ontario (ON):** Ontario has experienced significant changes in Robbery rates over the years. Rates were highest in 2012 and lowest in 2021. In 2022, there was a slight increase. This data implies the need for a consistent approach to manage Robbery incidents.

**Robbery in Top 3 Cities of Ontario:**

A screenshot of a graph

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* **Toronto:** Toronto has a notably high number of Robbery incidents, with 37,854 reported cases. This indicates a major concern in the city. It is crucial for the RCMP to prioritize resources and strategies to address this significant issue.
* **Peel Region (Mississauga):** In Mississauga, part of Peel Region, there were 10,734 reported Robbery incidents. While this number is lower than Toronto. Collaborative efforts with local police are needed to address this concern and ensure community safety.
* **Ottawa:** Ottawa, being the capital city, had the lowest Robbery count among the top 3 cities, with 6,549 incidents. Although the number is comparatively lower, it is essential to maintain preventive measures to avoid any potential increase in crime.

**Robbery in Top 3 Cities of Manitoba:**

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* **Winnipeg:** Winnipeg is the biggest city in Manitoba, and it has a big problem with 21,001 Robbery incidents. This is a serious concern and need to put a lot of resources and plans into making Winnipeg safer from Robbery.
* **Brandon:** Brandon is smaller than Winnipeg, but it still has a concern with 497 Robbery incidents. It is not as bad as Winnipeg, but it is crucial. We need to work with local police and the community to make Brandon a safer place.
* **Thompson:** Thompson is the smallest of the top 3 cities, with 455 Robbery incidents. Even in smaller communities, we must focus on preventing crime. We need to take action to keep Thompson's residents safe and stop the crime from going up.

**Robbery in Top 3 Cities of British Columbia:**

A pink rectangular boxes with numbers

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* **Vancouver:** Vancouver has a big issue with 8,635 Robbery incidents. This is a major problem that needs a lot of attention. We must put a lot of resources and plans into making Vancouver safer from Robbery.
* **Surrey:** In Surrey, there were 5,993 Robbery incidents, which is a significant concern. It's not as bad as Vancouver, but still, it's a big number. We need to work with local police and the community to make Surrey a safer place.
* **Burnaby:** Burnaby, with 2,288 Robbery incidents, has the fewest among the top 3 cities in British Columbia. But, even in smaller places, we need to work on preventing crime. We must take action to keep Burnaby safe and stop the crime from going up.

**Correlation between Youth Crime and Adult Crime:**  
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Correlation Between Youth and Adult Crime in High Crime Rate Cities:

The correlation coefficient of **0.92** shows that when there's more adult crime, there's also more youth crime in these high-crime cities. When adult crime decreases, youth crime tends to go down too.

This means we need strategies that help both adults and young people to prevent and reduce crime in these areas. When we work on reducing adult crime, it often helps reduce youth crime, and vice versa. So, we must coordinate efforts to effectively tackle crime in these cities.

**Robbery for the Year 2023 - Ontario**A graph showing the number of the year

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**Ontario (ON):** In 2022, there were 15,624 crimes. For 2023, we predict it to be slightly lower at 15,365. This means that crime in Ontario might go down a bit next year.

**Robbery for the Year 2023 – Manitoba**

A graph with green line

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**Manitoba (MB):** In 2022, there were 5,550 crimes. For 2023, we predict it to be a bit less at 5,449. This suggests that crime in Manitoba might decrease in the coming year.

**Robbery for the Year 2023 – British Columbia**

A graph showing the growth of the year

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**British Columbia (BC):** In 2022, there were 5,942 crimes. For 2023, we predict it to be about the same at 5,895. This indicates that the crime rate in BC is expected to remain relatively stable next year.

**Conclusion:**  
In conclusion, our study of Robbery data in Ontario, Manitoba, and British Columbia points to the need for specific strategies in each province. British Columbia is dealing with some new challenges, Manitoba should stay vigilant to prevent more crime, and Ontario needs a consistent plan to manage changing Robbery rates. In major cities, we see different Robbery levels, stressing the importance of resources and community involvement. Our correlation analysis confirms that working together is important, as there's a strong connection between youth and adult crime in high-crime cities. Looking ahead to 2023, we expect small drops in Ontario, a slight decline in Manitoba, and steady crime rates in British Columbia. These insights will help the RCMP work with local police to proactively keep communities safe.