**Project Proposal**

**Team Introduction**

**Section no: 001**

**Group 14**

**Group members are:**

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**Background:**

* The dataset contains data about vehicles crossing border between Canada (Ontario) and USA (Michigan & New York), we are using this data set to better understand the patterns, trends, and factors affecting the movement of people and goods across the border.
* The border crossing between the USA and Canada is one of the busiest land borders in the world, with a large volume of trade and travel between the two countries.
* There are 25 vehicular international bridges and tunnels and 14 international railway structures between Canada and the United States that fall under the International Bridges and Tunnels Act.
* We are using the data of vehicles crossing border between Canada (Ontario) and USA (Michigan & New York) which consists of 11 different locations.
* Transport and trade between the two countries have benefited greatly by the operation of the bridge and tunnel between Canada and the United States.

**Problem Statement:**

Both the Canadian and American governments can make choices on building new infrastructure for the flow of automobiles, and the Bridge and Tunnel Operators Association (BTOA) can do so more effectively with help of this analysis.

Both governments can keep track of the vehicles coming in and going out, determine how frequently they travel, and streamline the process.

With the help of this analysis, they can further strengthen the import and export of materials via transport.

**Project Proposal:**

* We aim to explore this data to identify trends and patterns and provide recommendations to improve the operations.
* We will collect, clean, and visualize the data, as well as use predictive analysis to forecast future trends.
* The analysis can inform decision-making related to the bridge and tunnel operations, ultimately improving transportation and trade between the two countries.
* Based on the analysis and insights gained, we can provide recommendations to improve the efficiency and effectiveness of the bridge and tunnel operations.

**Analysis questions:**

* Identify the busiest border crossings and analyze the crossing trends.
* Identify the most common types of vehicles crossing the border and analyze the trends over time.
* Identify the trends for 11 different locations.
* Analyze the trends for Passenger cars, Trucks, Buses & Misc. for all the locations.

**About Dataset:**

* Dataset Link: [Bridge and Tunnel Operators](https://www.bridgeandtunneloperators.org/)
* The dataset includes multiple sheets, and we are considering only few sheets for analysis and to visualize the data.
* The data which we have is from the year 2006 to 2023, but we are just considering the data from 2006 to 2022.
* The data set contains columns like year, vehicle classification, monthly traffic statistics.