TRAFFIC VIOLATION

The traffic violation dataset used in this project is collected from data.gov and the owner of the dataset is MCG ESB Service. This dataset contains information from all electronic traffic violations issued from the respective county.

We will study the data from different perspectives to analyze and find pattern in traffic violation at the United States of America from 2012 to 2017. We plan to identify the accident-prone zones and analyze the significant factors that influence traffic violation.

Scope of the project:
- Build an Oracle database to store the traffic violation data.
- Analyze data to generate reports and give valuable insights.

Project tasks:
- Completed low-level designing and created ERD that shall be implemented while creating the database.
- After approval of proposed design, proceed with framing the integrity condition and effective indexing strategies.
- Designing table structure, import the data to test the integrity of the data and fine tune the structure.
- After making the database stable, we would import the dataset.
- Test the SQL query/query optimization
- Performance improvements
- Slice the data to understand the patters in the data better and generate reports that would provide valuable insights

Project Plan:

Date	Activity	Member
16th September	ERD Diagram	Deepanshu
23rd September	Designing the integrity condition and indexing strategy	Hariharan
23rd September	Finalizing the table structure	Nikky, Prachi
30th September	Implementation of database in Oracle	Prachi
7th October	Importing data and test the consistency of data	Manoj
11th October	Review (1st Review)	
14th October	Proceeding to data import	Shaily
21st October	Performance improvements	Deepanshu, Shaily
21st October	Testing of SQL Queries	Manoj, Nikky, Hariharan
28th October	Review (2nd Review)	
30th October	Generate and submit reports	Nikky, Shaily, Hariharan
4th November	Submitting the final project report	Prachi, Manoj, Deepanshu

Traffic Violation ERD:

Vehicle_Type
- Vehicle_ID
- Vehicle_Type

Color
- Color_ID
- Color

Type_Of_Violation
- Violation_ID
- Type

Type_Of_Charge
- Charge_ID
- Charge_Type

FCT_Traffic_Violations
- Date_Of_Stop
- Time_Of_Stop
- Agency_ID
- Vehicle_Type_ID
- Description
- Years_Of_Manufacture
- Manufcturing_ID
- Model_ID
- Color_ID
- Violation_ID
- Charge_ID
- Contributed_To_Acc
- Race
- Gender
- Driver_City_ID
- Arrest_Type_ID

Agency
- Agency_ID
- Sub_Agency
- Agency

Model
- Model_ID
- Model
- Manufacturing_ID

City
- City_ID
- City
- State_ID

Arrest_Type
- Arrest_ID
- Arrest_Type

Manufacturing_Company
- Manufacturing_ID
- Company_Name

State
- State_ID
- State