

Team Members

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Problem Statement and Objective



Problem Statement:



To ensure that the compliance rules and regulations of ANT company are met by all the drivers of the corporation and no insurance risk is presented due to factors such as unsafe following, speeding or any other unsafe driving practices.



Objective:



To analyze ANT company truck drivers and truck travel history data using Tableau with the aim to forecast and predict any future risks as well as recommend useful and necessary actions.

Workflow

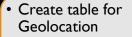
CLOUDERA

- Transfer geolocation file to **VMware**
- Transfer trucks file to VMware

Data from Local to Cloudera VM

Load data on **HDFS**

 Load files from VM local to home/training/input_fi les HDFS



- Create table for Trucks
- Create table for Truck Mileage, Driver mileage, Avg. mileage

Create Hive Tables



• Create risk factor table using Pig script. Download and Install **ODBC** drivers

+ableau

- Connect Hive/Impala to Tableau server.
- Extract data to Tableau

Integrate with Tableau

Visualize and **Analyze**

- Visualize the imported data
- Analyze the visualizations to help reduce truck accidents





Tableau Visualization

- Key Insights:
- Figure out top 10 risky drivers
- Miles covered by them in a particular period
- Events under which a particular driver is risky or safe
- Cities covered by a particular driver being risky or safe

DriverID: A10

Rdate: May 10

Miles: 15,542

Events: lane departure, normal, overspeed,

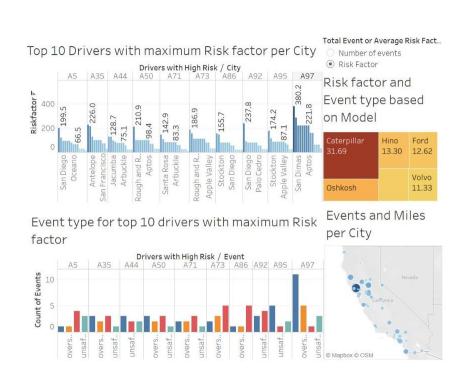
unsafe following distance

Risky Cities: Kneeland, Willits, San Quentin, Palo Alto, Isleton, Stockton, Goleta, Santa Paula, La Puente, San Dimas, Apple Valley



Tableau Visualization

- Key Insights:
 - Caterpillar trucks are the riskiest.
 - Unsafe following distance and Lane departures cause the most accidents, accounting for over 65% of the cases.
 - North California has more accidents as compared to South Caifornia.



Thank You!!

