Hortonworks Streaming Analytics Manager 3

# Creating Visualizations Using Superset

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# Creating Visualizations Using Superset

A business analyst can create a wide array of visualizations to gather insights on streaming data. The platform supports over 30+ visualizations the business analyst can create. For visualization examples, see the Gallery of Superset Visualizations.

The general process for creating and viewing visualizations is as follows:

1. Whenever you add new data sources to Druid via a Stream App, perform the Refresh Druid Metadata action on the **Superset** menu.
2. Using the Superset Stream Insight UI, create one or more "slices". A slice is one business visualization associated with a data source (for example, Druid cube).
3. Using the Dashboard menu, add the slices to your dashboard and organize their layout.

**Note:**

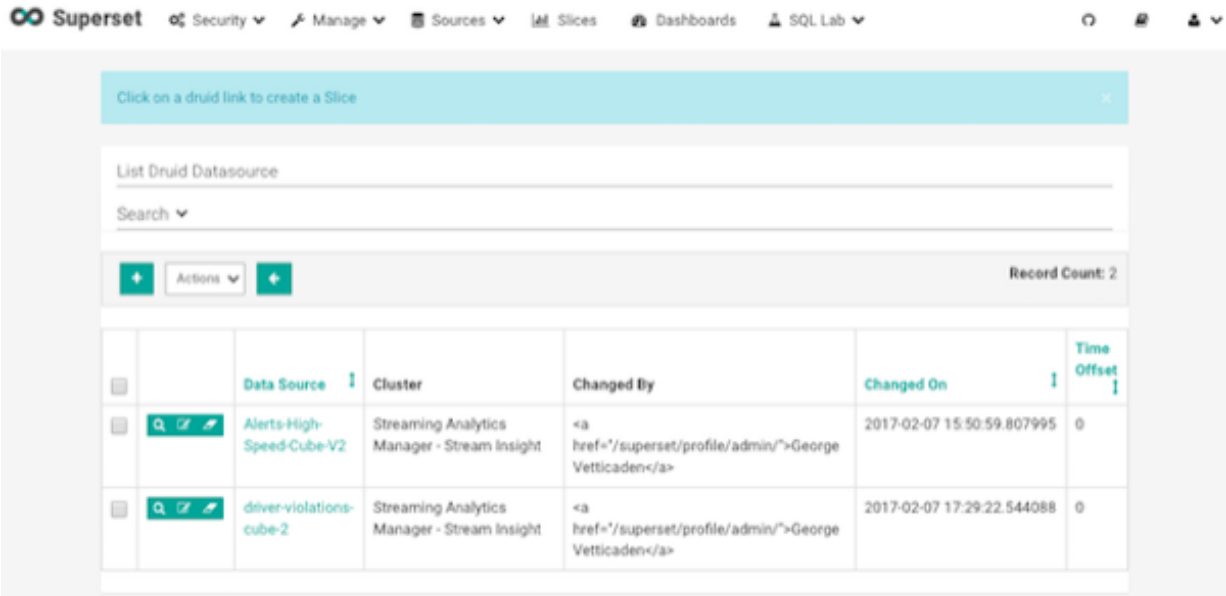
When a SAM app streams data to a new cube using the Druid processor, it will take about 30 minutes for the cube to appear in Superset. This is because Superset has to wait for the first segment to be created in Druid. After the cube appears, users can analyze the streaming data immediately as it is streaming in.

## Creating Insight Slices

The following steps demonstrate a typical flow for creating a slice:

### Procedure

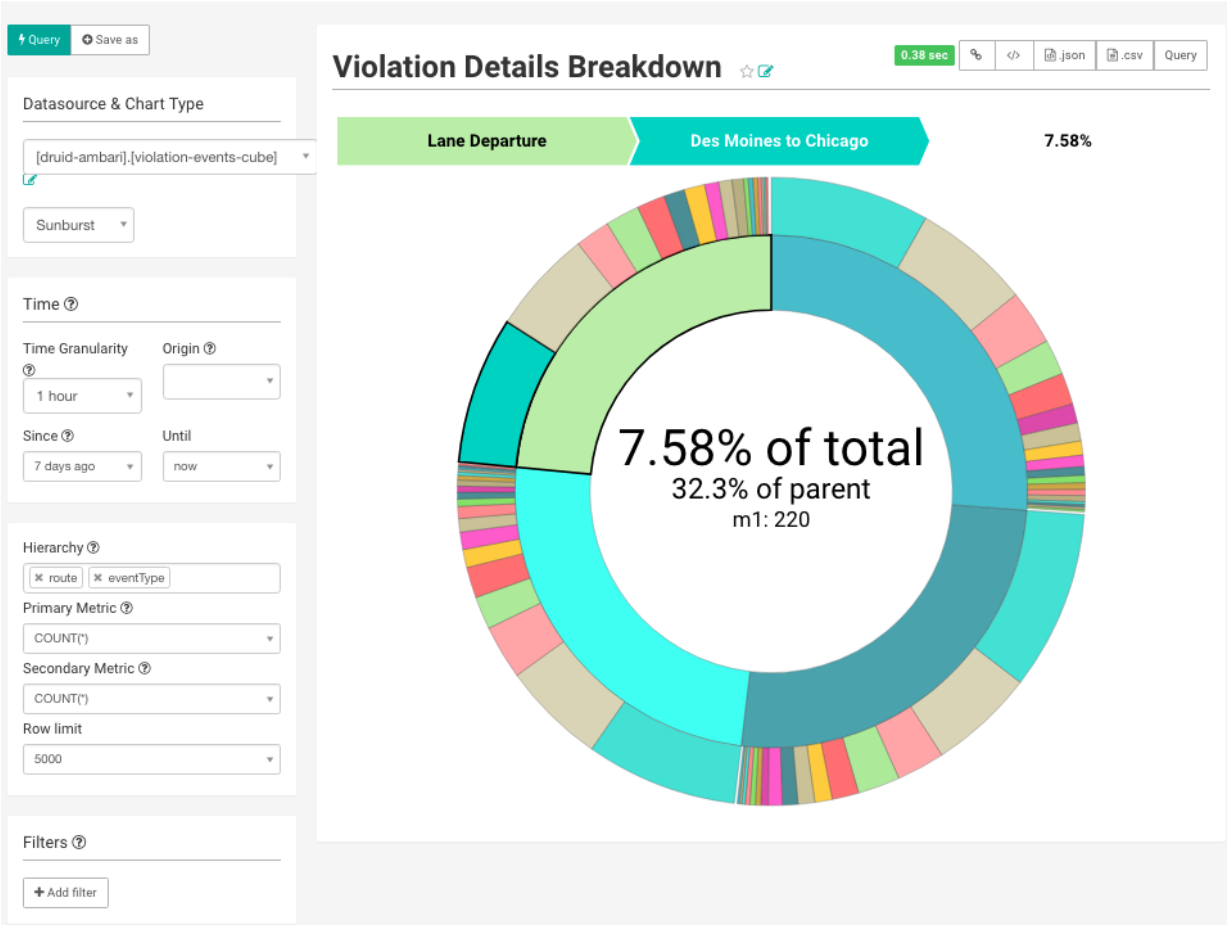
1. Choose Slices on the Menu.
2. Click + to create a new Slice.
3. Select the Druid Data Source that you want to use for the new visualization:



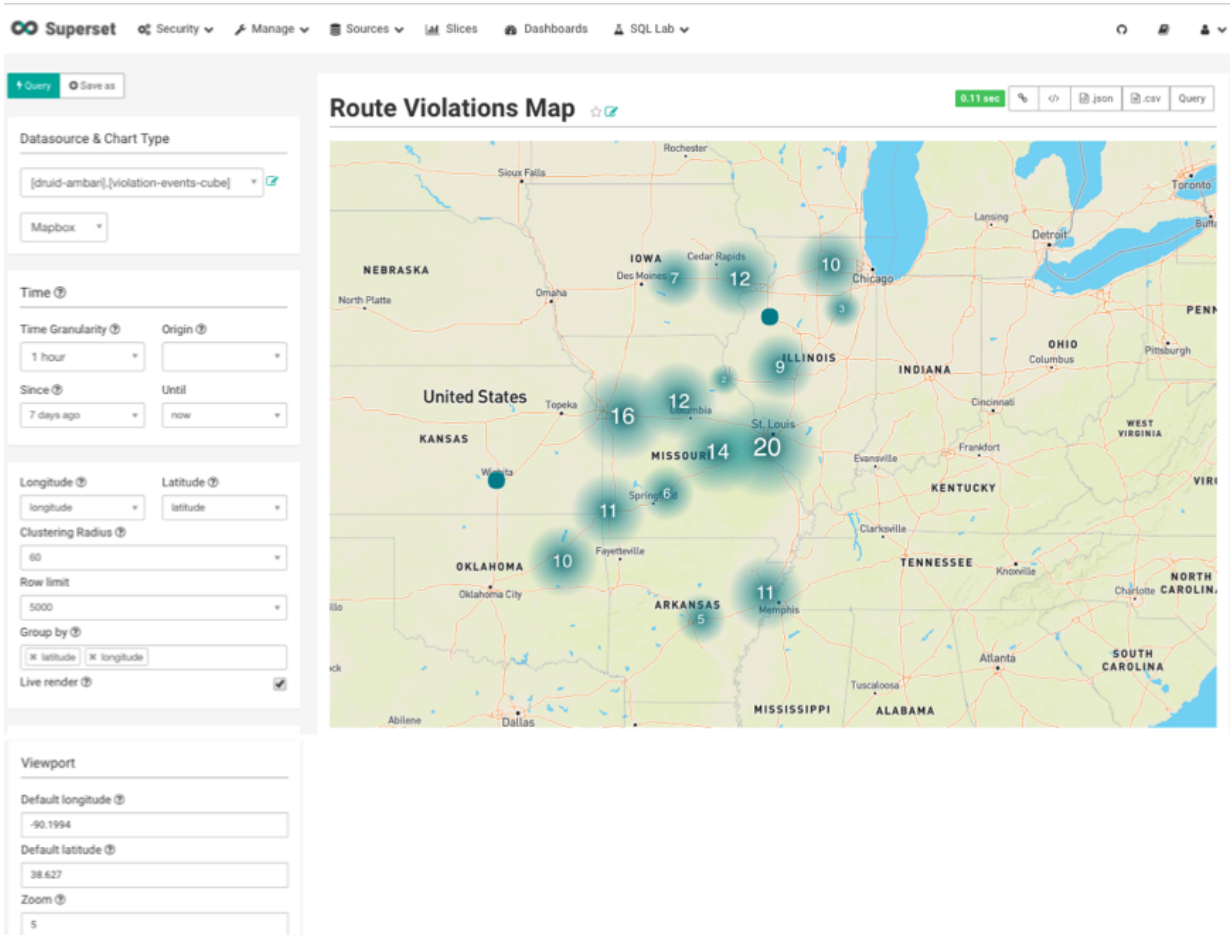

4. Select a Chart Type from the menu.

   The following example creates a "Sunburst" visualization of rolling up multiple dimensions like route, eventType, and driver info..

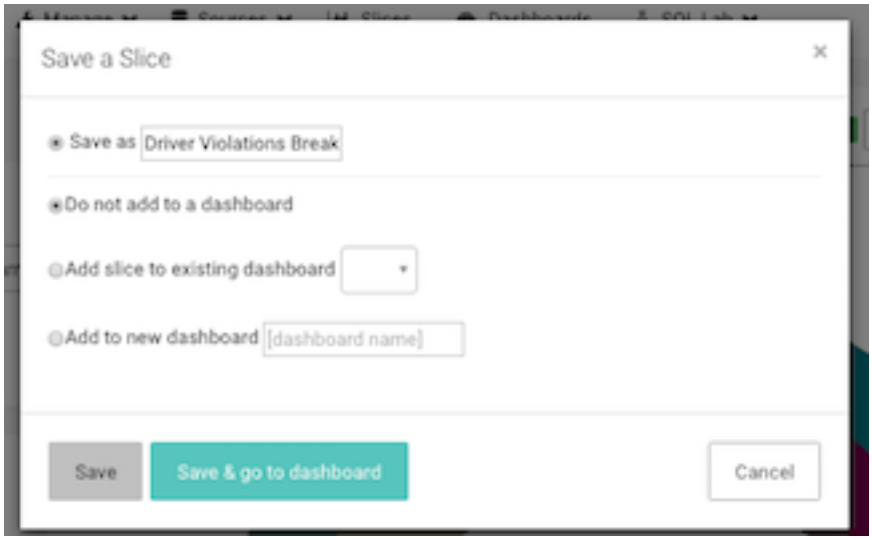
   Configure the chart and click Execute Query




5. Another visualization could be integration with MapBox Here we are mapping where violations are occurring the most based on the lat/long location of the event




6. To save the slice, specify a name and name and click Save.

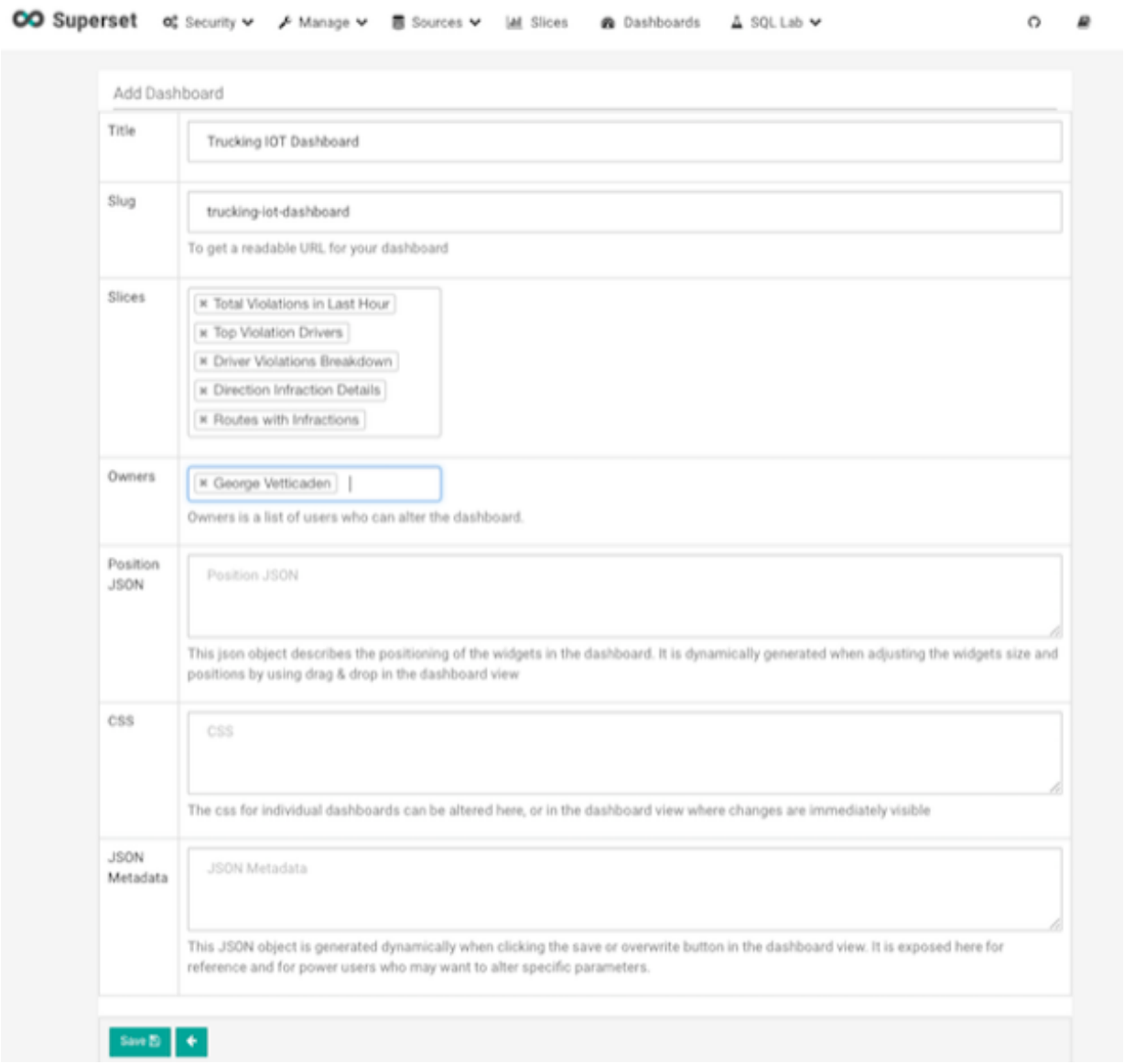



## Adding Insight Slices to a Dashboard

After you create slices, you can organize them into a dashboards:

### Procedure

1. Click the **Dashboard** menu item.
2. Click + to create a new Dashboard.
3. Configure the dashboard: specify a name and the slices to include in the Dashboard.




4. Arrange the slices on the dashboard as desired, and then click Save.

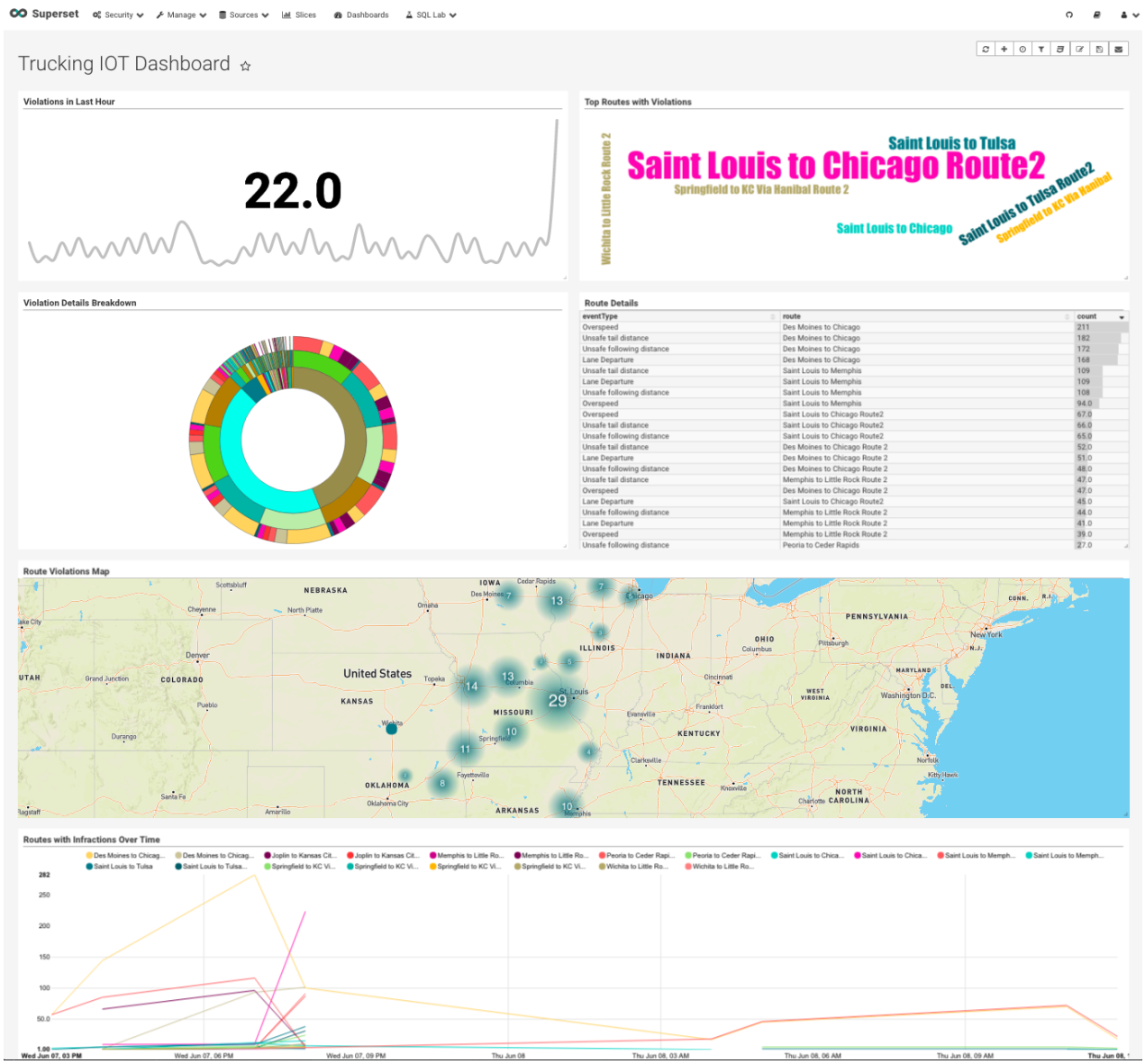
## Dashboards for the Trucking IOT App

The IOT Trucking application that we implemented using the Stream Builder streams violation events, alerts, and predictions into three cubes:

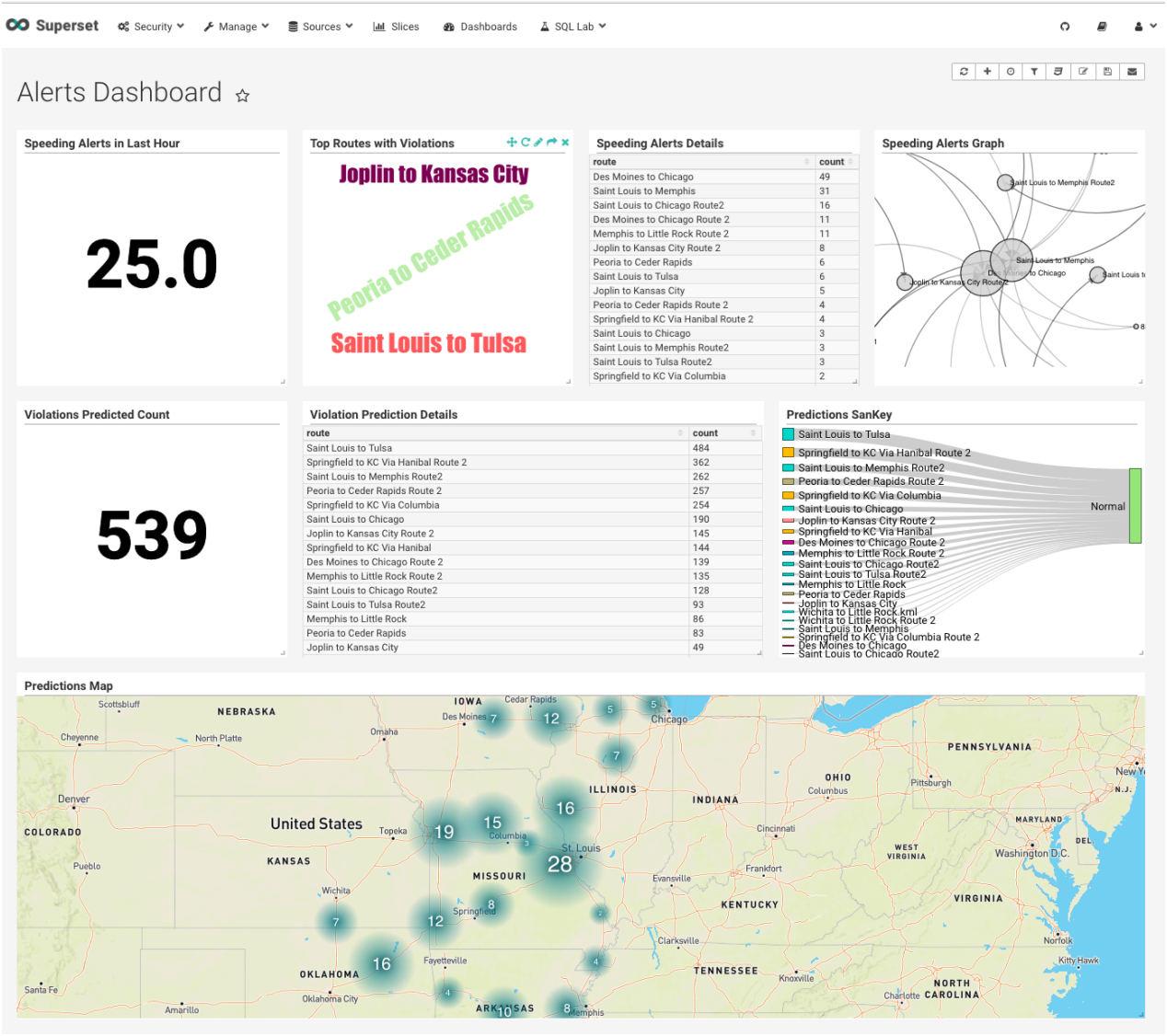
- violation-events-cube
- alerts-speeding-drivers-cube
- alerts-violation-predictions-cube

Based on the powerful visualizations that SuperSet offers, you can create the following powerful dashboards in minutes.

IoT Dashboard




Alerts Dashboard


Superset
Security
Manage
Sources
Slices
Dashboards
SQL Lab
Alerts Dashboard
Speeding Alerts in Last Hour
25.0
Top Routes with Violations
Joplin to Kansas City
Peoria to Ceder Rapids
Saint Louis to Tulsa
Speeding Alerts Details
route count
Des Moines to Chicago 49
Saint Louis to Memphis 31
Saint Louis to Chicago Route2 16
Des Moines to Chicago Route 2 11
Memphis to Little Rock Route 2 11
Joplin to Kansas City Route 2 8
Peoria to Ceder Rapids 6
Saint Louis to Tulsa 6
Joplin to Kansas City 5
Peoria to Ceder Rapids Route 2 4
Springfield to KC Via Hanibal Route 2 4
Saint Louis to Chicago 3
Saint Louis to Memphis Route2 3
Saint Louis to Tulsa Route2 3
Springfield to KC Via Columbia 2
Speeding Alerts Graph
Violations Predicted Count
539
Violation Prediction Details
route count
Saint Louis to Tulsa 484
Springfield to KC Via Hanibal Route 2 362
Saint Louis to Memphis Route2 262
Peoria to Ceder Rapids Route 2 257
Springfield to KC Via Columbia 254
Saint Louis to Chicago 190
Joplin to Kansas City Route 2 145
Springfield to KC Via Hanibal 144
Des Moines to Chicago Route 2 139
Memphis to Little Rock Route 2 135
Saint Louis to Chicago Route2 128
Saint Louis to Tulsa Route2 93
Memphis to Little Rock 86
Peoria to Ceder Rapids 83
Joplin to Kansas City 49
Predictions SanKey
Saint Louis to Tulsa
Springfield to KC Via Hanibal Route 2
Saint Louis to Memphis Route2
Peoria to Ceder Rapids Route 2
Springfield to KC Via Columbia
Saint Louis to Chicago
Joplin to Kansas City Route 2
Springfield to KC Via Hanibal
Des Moines to Chicago Route 2
Memphis to Little Rock Route 2
Saint Louis to Chicago Route2
Saint Louis to Tulsa Route2
Memphis to Little Rock
Peoria to Ceder Rapids
Joplin to Kansas City
Wichita to Little Rock kml
Wichita to Little Rock Route 2
Saint Louis to Memphis
Springfield to KC Via Columbia Route 2
Des Moines to Chicago
Saint Louis to Chicago Route2
Normal
Predictions Map
NEBRASKA
IOWA
ILLINOIS
INDIANA
OHIO
PENNSYLVANIA
COLORADO
KANSAS
MISSOURI
KENTUCKY
WEST VIRGINIA
VIRGINIA
MARYLAND
OKLAHOMA
TENNESSEE
NORTH CAROLINA
United States
Chicago
St. Louis
Denver
Pueblo
Wichita
Topeka
Columbia
Springfield
Fayetteville
Oklahoma City
Amarillo
Santa Fe
Memphis
Knoxville
Clarksville
Evansville
Frankfort
Cincinnati
Columbus
Pittsburgh
Washington D.C.
Norfolk
Kitty Hawk
Charlotte
Cedar Rapids
Des Moines
Omaha
North Platte
Cheyenne
Scottsbluff
Pittsburgh
Norfolk
Kitty Hawk
Charlotte
Knoxville
Washington D.C.
Columbus
Cincinnati
Frankfort
Evansville
Clarksville
Springfield
Fayetteville
Oklahoma City
Amarillo
Santa Fe
Memphis
Columbia
Topeka
Wichita
Pueblo
Denver
Scottsbluff
Des Moines
Cedar Rapids
Chicago
Omaha
Cheyenne
North Platte
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