

## 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:

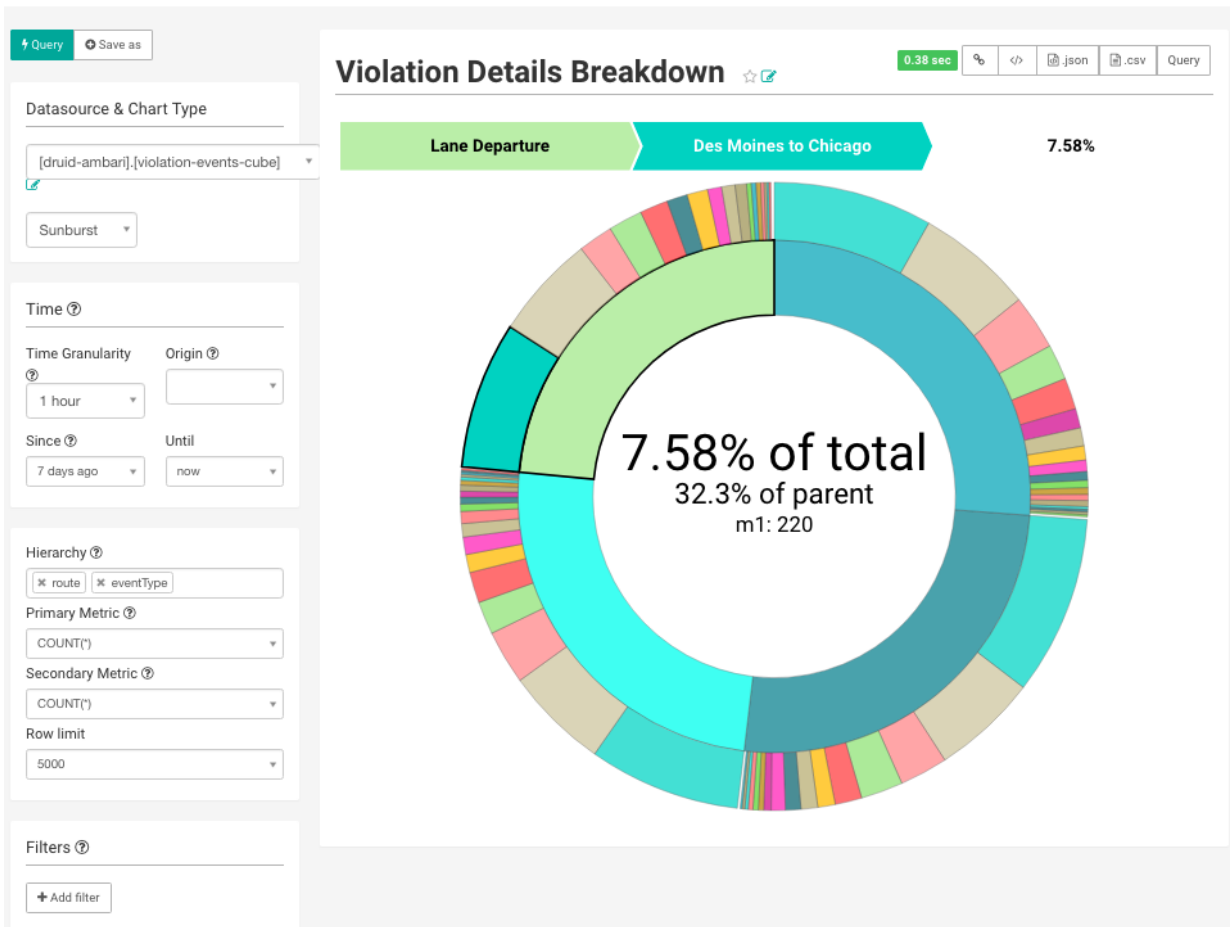
The screenshot shows the Superset interface for listing Druid data sources. At the top, there is a navigation bar with 'Superset' and various menu items like 'Security', 'Manage', 'Sources', 'Slices', 'Dashboards', and 'SQL Lab'. Below the navigation bar, there is a search bar and a table with the following data:

		Data Source	Cluster	Changed By	Changed On	Time Offset
<input type="checkbox"/>	<a href="#">Q</a> <a href="#">Z</a> <a href="#">A</a>	Alerts-High-Speed-Cube-V2	Streaming Analytics Manager - Stream Insight	<a href="/superset/profile/admin/">George Vetticaden</a>	2017-02-07 15:50:59.807995	0
<input type="checkbox"/>	<a href="#">Q</a> <a href="#">Z</a> <a href="#">A</a>	driver-violations-cube-2	Streaming Analytics Manager - Stream Insight	<a href="/superset/profile/admin/">George Vetticaden</a>	2017-02-07 17:29:22.544088	0

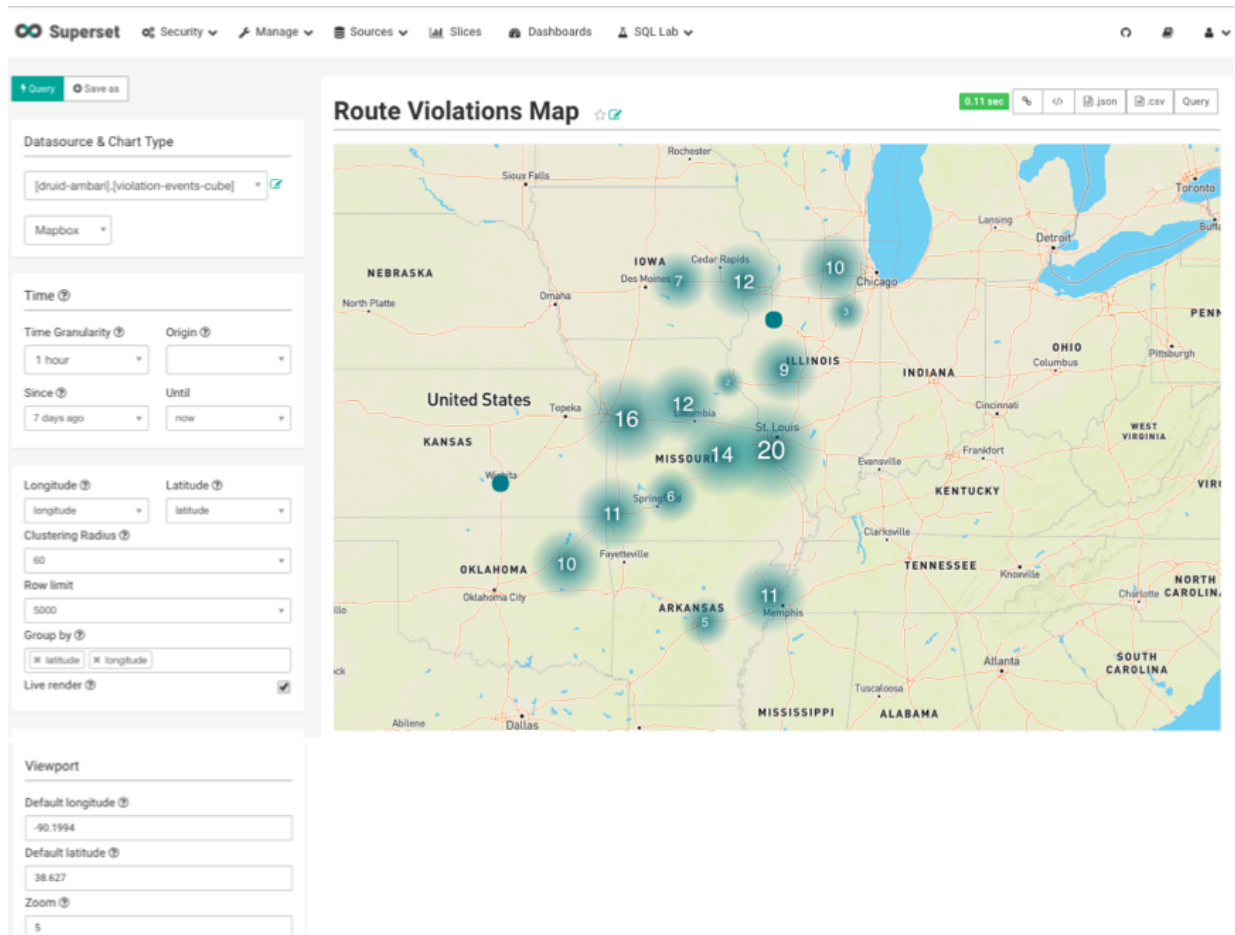
4. Select a Chart Type from the menu.

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



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

The screenshot shows the "Save a Slice" dialog box in Superset. The dialog has a title bar with "Save a Slice" and a close button. Below the title bar, there are four radio button options:
 

- Save as
- Do not add to a dashboard
- Add slice to existing dashboard
- Add to new dashboard

 At the bottom of the dialog, there are three buttons: "Save", "Save & go to dashboard", and "Cancel". The "Save" button is highlighted in green.

## 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.

The screenshot shows the 'Add Dashboard' form in Superset. The form is titled 'Add Dashboard' and contains several input fields and a list of slices. The 'Title' field is 'Trucking IOT Dashboard'. The 'Slug' field is 'trucking-iot-dashboard'. The 'Slices' field contains a list of five slices: 'Total Violations in Last Hour', 'Top Violation Drivers', 'Driver Violations Breakdown', 'Direction Infraction Details', and 'Routes with Infractions'. The 'Owners' field contains 'George Velticaden'. The 'Position JSON' field contains 'Position JSON'. The 'CSS' field contains 'CSS'. The 'JSON Metadata' field contains 'JSON Metadata'. At the bottom of the form, there are 'Save' and '+' buttons.

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

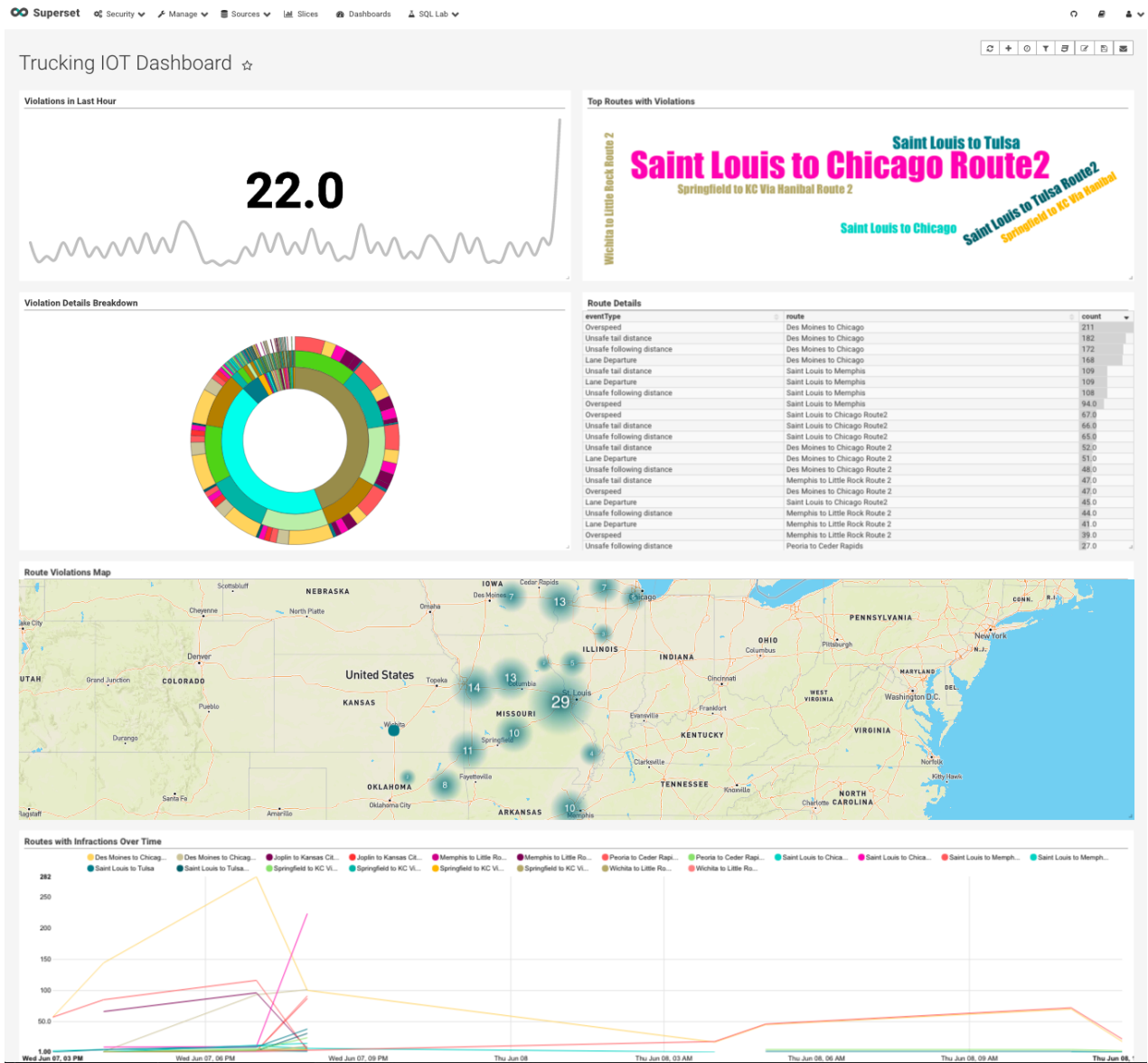
## Dashboards for the Trucking IOT App

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

