

Cloudera Runtime 7.0.1

## Apache Zeppelin Overview

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# CLOUdera

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# Contents

<b>Overview.....</b>	<b>4</b>
----------------------	----------

# Overview

Apache Zeppelin is a web-based notebook that supports interactive data exploration, visualization, and collaboration.

Zeppelin supports a growing list of programming languages and interfaces, including Python, Scala, Hive, SparkSQL, shell, AngularJS, and markdown.

Apache Zeppelin is useful for working interactively with long workflows: developing, organizing, and running analytic code and visualizing results.

The screenshot displays the Apache Zeppelin Notebook interface for "IoT Data Analysis". At the top, there is a search bar and a user profile "anonymous". Below the title, a table shows data for various event types. The table has columns for event type, a flag (N), unit (miles), speed (90), distance (4,300), and several numerical values.

Normal	N	miles	90	4,300	-89.52	40.7	0	0	0
Normal	N	miles	90	4,300	-91.05	41.72	0	0	1
Normal	N	miles	90	4,300	-91.47	41.74	0	0	0
Lane Departure	N	miles	90	4,300	-91.59	41.7	1	0	0
Unsafe following distance	N	miles	90	4,300	-88.77	40.76	0	1	1

Below the table, three SQL query panels are shown, each with a visualization:

- Panel 1:** SQL query: `select eventType, count(*) occurrences from enrichedEvents group by eventType`. Visualization: Bar chart showing occurrences for "Overspeed" and "Unsafe following distance".
- Panel 2:** SQL query: `select isCertified, count(*) numViolations from enrichedEvents where eventType in ("Unsafe tail distance", "Overspeed", "Lane Departure", "Unsafe following distance") group by isCertified`. Visualization: Pie chart showing the distribution of violations by certification status (N and Y).
- Panel 3:** SQL query: `select eventType, isCertified, hoursDriven from enrichedEvents group by eventType, isCertified, hoursDriven`. Visualization: Stacked area chart showing hours driven by event type and certification status.