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## Apache Zeppelin Overview

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<http://docs.hortonworks.com>

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# 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 an IoT Data Analysis workflow. At the top, there is a search bar and a user profile indicator. Below the title, a table lists various event types and their associated metrics. The table data is as follows:

Event Type	Count	Unit	Value 1	Value 2	Value 3	Value 4	Value 5	Value 6
Normal	N	miles	90	4,300	-89.52	40.7	0	0
Normal	N	miles	90	4,300	-91.05	41.72	0	1
Normal	N	miles	90	4,300	-91.47	41.74	0	0
Lane Departure	N	miles	90	4,300	-91.59	41.7	1	0
Unsafe following distance	N	miles	90	4,300	-88.77	40.76	0	1

Below the table, three KSQL queries are shown, each with its corresponding visualization:

- Query 1:** `select eventType, count(*) occurrences from enrichedEvents group by eventType`. The visualization is a grouped bar chart showing the count of occurrences for 'Overspeed' and 'Unsafe following distance'.
- Query 2:** `select isCertified, count(*) numViolations from enrichedEvents where eventType in ('Unsafe tail distance', 'Overspeed', 'Lane Departure', 'Unsafe following distance') group by isCertified`. The visualization is a pie chart showing the distribution of violations by certification status (N and Y).
- Query 3:** `select eventType, isCertified, hoursDriven from enrichedEvents group by eventType, isCertified, hoursDriven`. The visualization is a stacked area chart showing hours driven for different event types and certification statuses.