

# Apache Zeppelin

Web-based notebook that enables data-driven, interactive data analytics and collaborative documents with SQL, Scala, Python, R and more.

[GET STARTED \(/docs/latest/quickstart/install.html\)](/docs/latest/quickstart/install.html)

[DOWNLOAD \(/download.html\)](/download.html)

## TECHNOLOGIES



SQL



*See more details in Zeppelin supports 20+ different interpreters. [LEARN MORE](#) ▶  
(/supported\_interpreters.html)*

## DEPLOYMENTS

### Single User

Local Spark, 6 Built-in visualizations, Display system, Dynamic form,  
Multiple backends are supported.

[LEARN MORE \(/DOCS/LATEST/QUICKSTART/INSTALL.HTML\)](/DOCS/LATEST/QUICKSTART/INSTALL.HTML)

### Multi-User

Zeppelin supports Multi-user Support w/ LDAP. Let's configure Zeppelin  
for your yarn cluster.

[LEARN MORE \(/DOCS/LATEST/SETUP/SECURITY/SHIRO\\_AUTHENTICATION.HTML\)](/DOCS/LATEST/SETUP/SECURITY/SHIRO_AUTHENTICATION.HTML)

# WHAT'S NEW IN

## Apache Zeppelin 0.11

### Java 11

Zeppelin 0.11 is built with Java 11. It's recommended to use Java 11 or later to run Zeppelin.

### Spark and Flink

The latest version of Apache Spark and Apache Flink are supported. You can use the latest features and improvements in Spark and Flink.

### Python 3





Python 3.9 is the default version of Python interpreter.

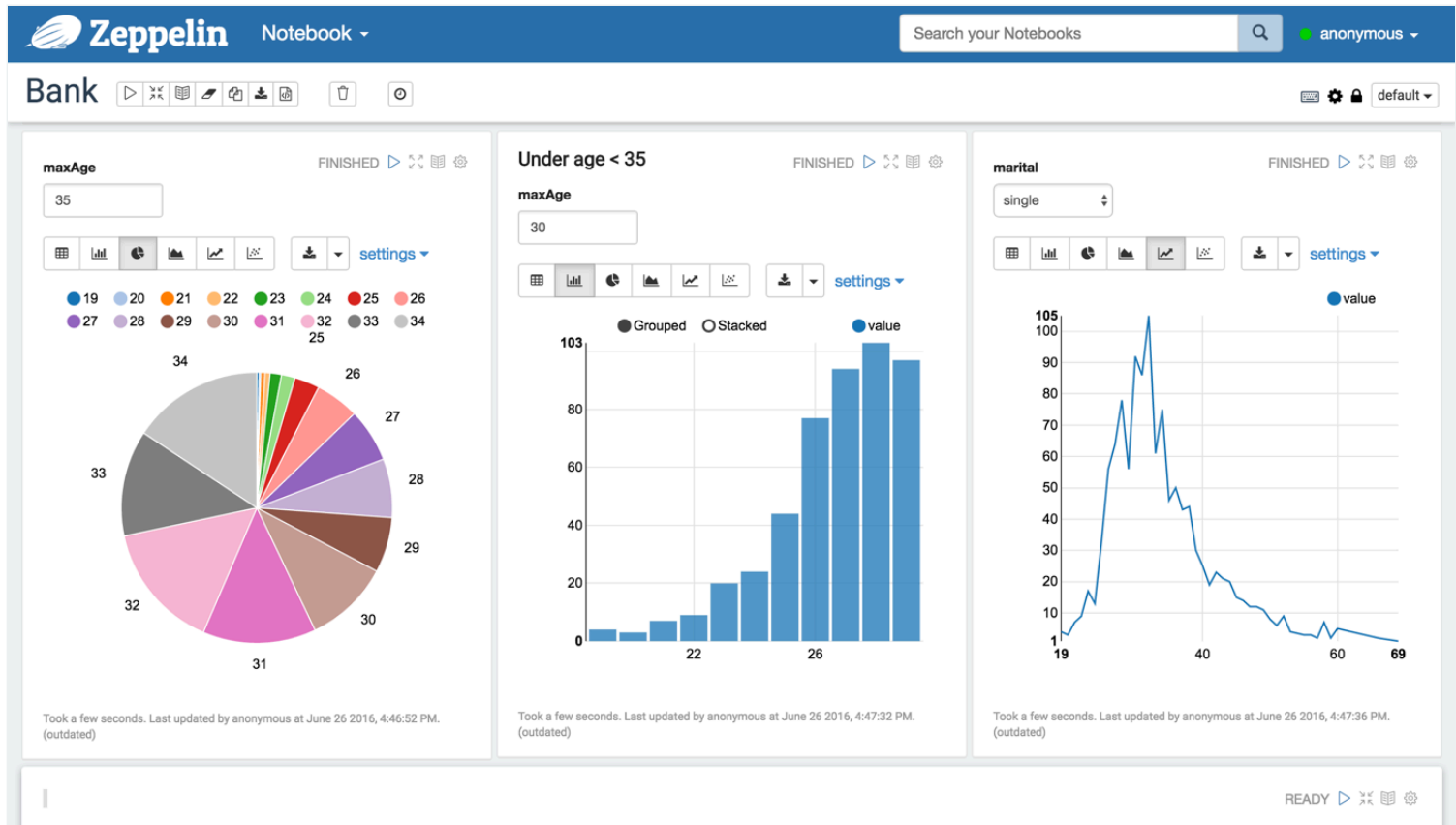
*See more details in 0.11.0 Release Note ([./releases/zeppelin-release-0.11.0.html](https://zeppelin.apache.org/releases/zeppelin-release-0.11.0.html))*

# WHAT IS APACHE ZEPPELIN ?

## Multi-purpose Notebook

The Notebook is the place for all your needs

-  Data Ingestion
-  Data Discovery
-  Data Analytics
-  Data Visualization & Collaboration



## Multiple Language Backend

Apache Zeppelin interpreter ([./docs/latest/usage/interpreter/overview.html](#)) concept allows any language/data-processing-backend to be plugged into Zeppelin. Currently Apache Zeppelin supports many interpreters such as Apache Spark, Apache Flink, Python, R, JDBC, Markdown and Shell.



Adding new language-backend is really simple. Learn how to create a new interpreter ([./docs/latest/development/writing\\_zeppelin\\_interpreter.html#make-your-own-interpreter](http://docs/latest/development/writing_zeppelin_interpreter.html#make-your-own-interpreter)).

## Apache Spark integration

Especially, Apache Zeppelin provides built-in Apache Spark (<http://spark.apache.org/>) integration. You don't need to build a separate module, plugin or library for it.



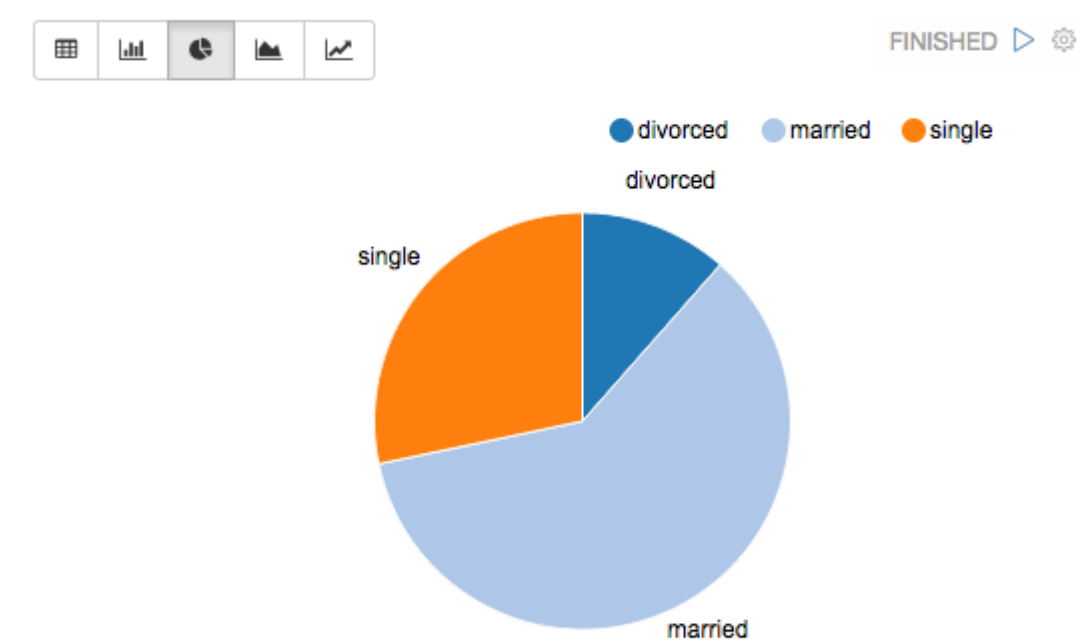
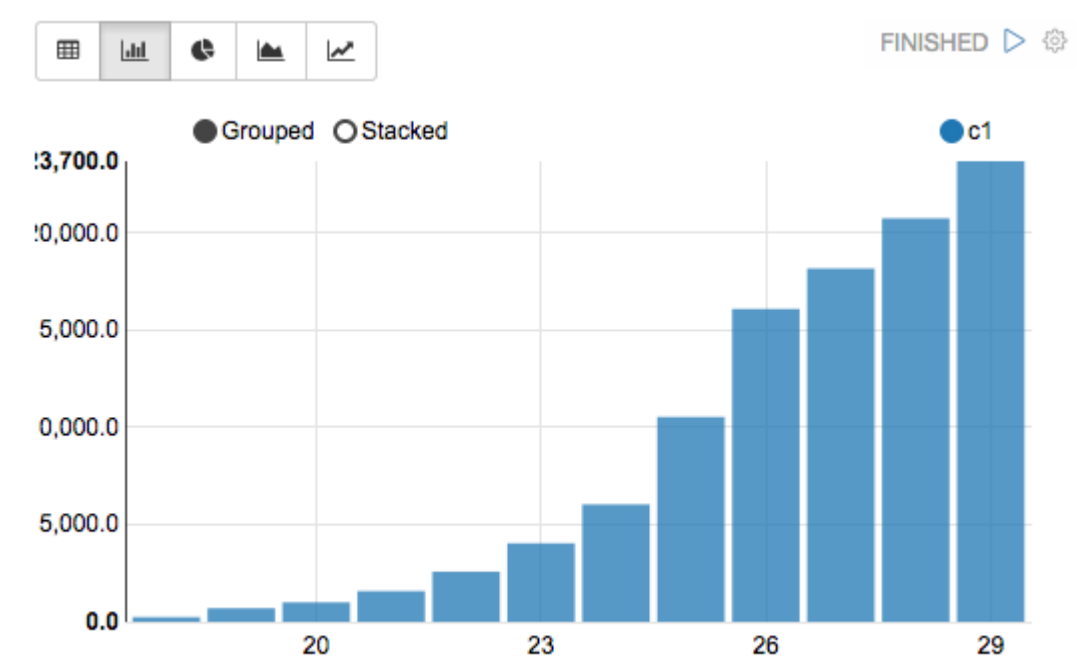
Apache Zeppelin with Spark integration provides

- Automatic SparkContext and SQLContext injection
- Runtime jar dependency loading from local filesystem or maven repository. Learn more about dependency loader ([./docs/latest/interpreter/spark.html#dependencyloading](http://docs/latest/interpreter/spark.html#dependencyloading)).
- Canceling job and displaying its progress

For the further information about Apache Spark in Apache Zeppelin, please see Spark interpreter for Apache Zeppelin ([./docs/latest/interpreter/spark.html](http://docs/latest/interpreter/spark.html)).

# Data visualization

Some basic charts are already included in Apache Zeppelin. Visualizations are not limited to SparkSQL query, any output from any language backend can be recognized and visualized.



## Pivot chart

Apache Zeppelin aggregates values and displays them in pivot chart with simple drag and drop. You can easily create chart with multiple aggregated values including sum, count, average, min, max.



Learn more about basic display systems ([./docs/latest/usage/display\\_system/basic.html](#)) and Angular API(frontend ([./docs/latest/usage/display\\_system/angular\\_frontend.html](#)) , backend ([./docs/latest/usage/display\\_system/angular\\_backend.html](#))) in Apache Zeppelin.

## Dynamic forms

Apache Zeppelin can dynamically create some input forms in your notebook.

```
%md Hello ${name=sun}
```

name

Hello moon

```
%spark  
println("Today is "+z.select("day", Seq(("Monday","1"),  
("Tuesday","2"),  
("Wednesday","3"),  
("Thursday","4"),  
("Friday","5"),  
("Saturday","6"),  
("Sunday","7"))))
```

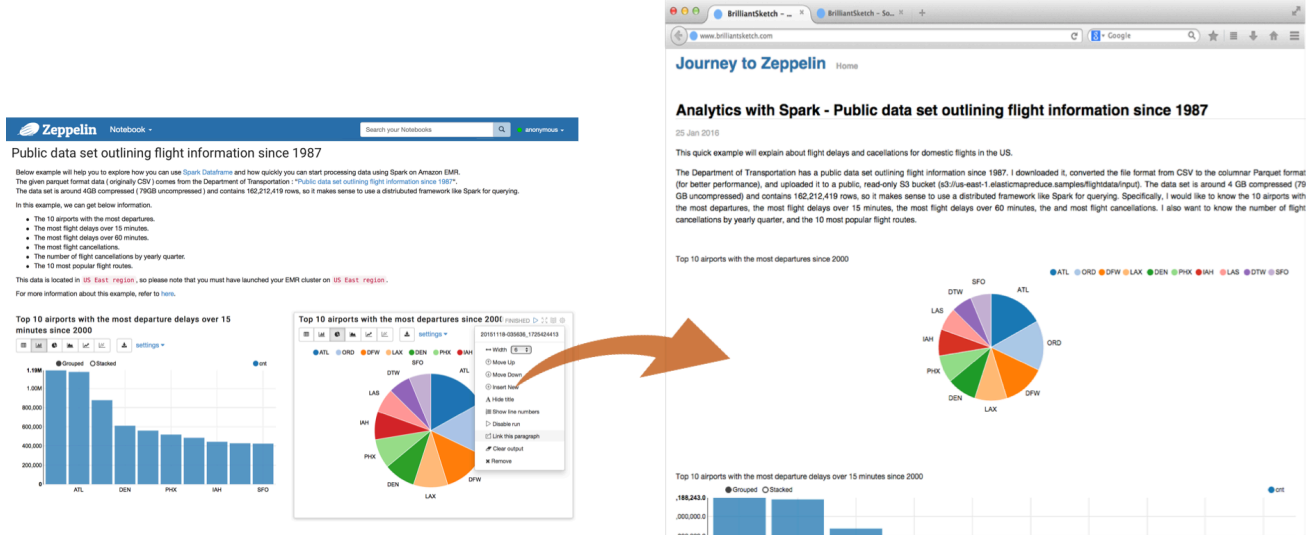
day

Today is Friday

Learn more about Dynamic Forms ([./docs/latest/usage/dynamic\\_form/intro.html](#)).

# Collaborate by sharing your Notebook & Paragraph

Your notebook URL can be shared among collaborators. Then Apache Zeppelin will broadcast any changes in realtime, just like the collaboration in Google docs.



Apache Zeppelin provides an URL to display the result only, that page does not include any menus and buttons inside of notebooks. You can easily embed it as an iframe inside of your website in this way. If you want to learn more about this feature, please visit this page ([./docs/latest/usage/other\\_features/publishing\\_paragraphs.html](https://docs.latest/usage/other_features/publishing_paragraphs.html)).

## 100% Opensource



Apache Zeppelin is Apache2 Licensed software. Please check out the source repository (<https://github.com/apache/zeppelin>) and how to contribute ([./docs/latest/development/contribution/how\\_to\\_contribute\\_code.html](https://docs.latest/development/contribution/how_to_contribute_code.html)). Apache Zeppelin has a very active development community. Join to our Mailing list (<https://zeppelin.apache.org/community.html>) and report issues on Jira Issue tracker (<https://issues.apache.org/jira/browse/ZEPPELIN>).



# ZEPPELIN ON TWITTER

Tweets by ApacheZeppelin ([https://twitter.com/ApacheZeppelin?ref\\_src=twsrc%5Etfw](https://twitter.com/ApacheZeppelin?ref_src=twsrc%5Etfw))

*See more tweets or*



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## APACHE ZEPPELIN STORIES

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*See more posts or*

