# **Tutorials DataDev**

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After reading and viewing of the below tutorials & examples you should be able to

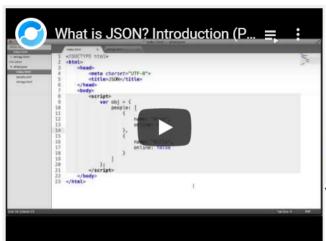
- create Data structures to store all necessary data
- communicate with the cloud to add and read your data
- visualize data within web pages using bar, pie and line charts

Estimated time of reading, viewing and practicing: 3-6 hours

### 1 Structuring data with JSON, processing date & time

### Intention

- store data dynamically in JSON Objects and JSON Arrays
- · read data from JSON datastructures
- use jQuery that helps you with programming





Work with date & time in Javascript





Some helpful browser tools for web developments



Intro to jQuery, a Javascript library

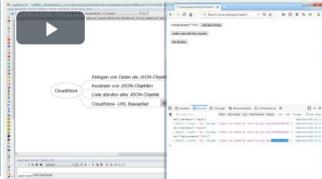
## 2 Reading & writing data from the web

### Intention:

- save data persistently in the cloudstore
- retrieve data from the cloudstore



Retreive Data from a cloud source using JQuery



Using the Cloudstore (a cloud storage solution provided by Tobias using the Google App

## 3 Manage Data in Arrays and Visualizing data using Google Charts

#### Intention

- visualize data after aggregation or to summarize trends
- use appropriate chart types for your data





**Data Visualization** 

Data Organization in Arrays

## 4 Practice: Data Transformation and agregation

To test your skills and load the data of owner logdata (dynamically) from the cloudstore using

- <a href="http://webtechlecture.appspot.com/cloudstore/listkeys?owner=logdata">http://webtechlecture.appspot.com/cloudstore/listkeys?owner=logdata</a> and for each key
- <a href="http://webtechlecture.appspot.com/cloudstore/get?owner=logdata&key=logentry1">http://webtechlecture.appspot.com/cloudstore/get?owner=logdata&key=logentry1</a>

and create a bar chart that shows how many of the 840 log requests where made for which app-value. The app values are e.g. modulhaus, plissee, bussestrains,... which corresponds to customers who have requested a render service which then was logged using the respective timestamp.

See also the example readDataFromCloudstore.html provided in the appendix. See your Webbrowser- Developer-Tool-Log to see the data retrieved.