## Project Plan for Locus Dashboard

Data source: Tesla3.csv

Data fields: "时间", "Twitter ID", "用户名", "正文", "回复", "转发", "点赞"

Upload to github for ajax request "https://raw.githubusercontent.com/skywalkershen/twitter-data/master/TeslaModel3.csv"



## Features

### Graph1 features:

1. Title: 用户行为总数
2. Type: line with color gradient
3. Data needed: x: “时间”, by “年”“季”“月”“周”“时”“分”, according to “上钻/下钻查询”

Y: “总活动次数”, sum of "回复", "转发", "点赞"

1. Indicator: on mouse hover on the line
2. Tooltip: on mouse hover on the line
3. Select: on click, put a indicator on the point, add “只保留”,“排除”,“查看数据”
4. Select x-axis: high light x-axis, add “上钻 下钻 查看数据”buttons on mouse hover

### Graph2 features:

1. Title: 转发、回复、被赞
2. Type: 3 sub graph, line with color
3. Data needed: x: “时间”, by “年”“季”“月”“周”“日”“时”“分”, according to “上钻/下钻查询”

Y: "回复", "转发", "点赞" for 3 sub graphs respectively

1. Indicator: on mouse hover on the line
2. Tooltip: on mouse hover on the line
3. Select: on click, put a indicator on the point, add “只保留”,“排除”,“查看数据” buttons to Tooltip
4. Select x-axis: high light x-axis, add “上钻 下钻 查看数据”buttons on mouse hover

### Graph3 features:

1. Title: 最活跃用户
2. Type: stacked bar with 3 parts and scrollbar
3. Data needed: x: 用户名

Y: sum of activity

1. Tooltip: on mouse hover: show value of current field of the bar

5. Select stacked part:

5.1. add border for the field, darken other parts

5.2. add “只保留”,“排除”,“查看数据”to Tooltip

5.3. Select item on Y axis:

5.3.1. highlight selected item, darken other items

5.3.2. add “只保留”,“排除”,“升序排列”，“降序排列”，“查看数据”buttons to Tooltip

~~3. open new page to the twitter profile~~

5.4Select X axis: highlight x axis, add “升序排列”，“降序排列”，“查看数据”buttons to Tooltip

### Graph4 features:

1. Title: 最受欢迎推文
2. Type: stacked bar with 3 parts and scrollbar
3. Data needed: x: “正文”

Y: sum of activity

1. Tooltip: on mouse hover: show value of current field of the bar

5. Select stacked part:

5.1. add border for the field, darken other parts,

5.2. add “只保留”,“排除”,“查看数据”to Tooltip

5.3. Select item on Y axis:

5.3.1. highlight selected item, darken other items

5.3.2. add “只保留”,“排除”,“升序排列”，“降序排列”，“查看数据”buttons to Tooltip

~~3. open new page to the twit~~

5.4Select X axis: highlight x axis, add “升序排列”，“降序排列”，“查看数据”buttons to Tooltip

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### Select Field C:\Users\SKYWAL~1\AppData\Local\Temp\1516214614(1).png

1. Select from "回复", "转发", "点赞"
2. Highlight selected field in graph 2, 3, 4, darken other parts.

### Priority

1. Layout for graph3, 4，render scrollable stacked bars with fake data
2. Layout for graph1, 3, render line with fake data
3. Data request and process
4. Sorting function
5. Tool tip features
6. Select features
7. Include exclude button
8. Select field with legend

## Problems

### Choose and learn visualization library to draw the graph

D3, highgraph or echarts

Echarts and highgraph: use preset templates and layouts to build, not that flexible, but equipped with most features

D3: build everything from scratch with SVG, steep learning curve

### Data fetching and processing

For graph1: get sum of activities for “时间” during the period of “年”“季”“月”“周”“日”“时”“分”

Turn{时间,Twitter ID,用户名,正文,回复,转发,点赞}

into {时间（duration），sum of activities}

For graph2: get sum of activities for “时间” during the period of “年”“季”“月”“周”“日”“时”“分”

Turn {时间,Twitter ID,用户名,正文,回复,转发,点赞}

into {时间（duration）, sum of 回复，sum of 转发, sum of 点赞}

For graph3: get sum of activities and get sum of "回复", "转发", "点赞" respectively for each “用户名”, sort the data according to the sum of activity

Turn {时间,Twitter ID,用户名,正文,回复,转发,点赞}

into {Twitter ID, 用户名(merged)， 回复，转发，点赞}

ascending and descending order

For graph4: get sum of activities for each item, sort the data according to the sum of activity

Turn{时间,Twitter ID,用户名,正文,回复,转发,点赞}

Into {时间,Twitter ID,用户名,正文,回复,转发,点赞}

Ascending and descending order