See Tableau In Action

Advanced Analytics

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Tableau Software

#TableauPSDay

“Hiding within those mounds of data is knowledge that could change the life of a patient, or change the world.”

Atul Butte – Data Miner, MD, PhD (Pediatrics)
Standford Medicine Magazine

Session Goals

- Share Tableau's Advance Features
- Introduce Tableau's external analytics integrations
- Build self-service interactive dashboards to share insights

Motion Charts

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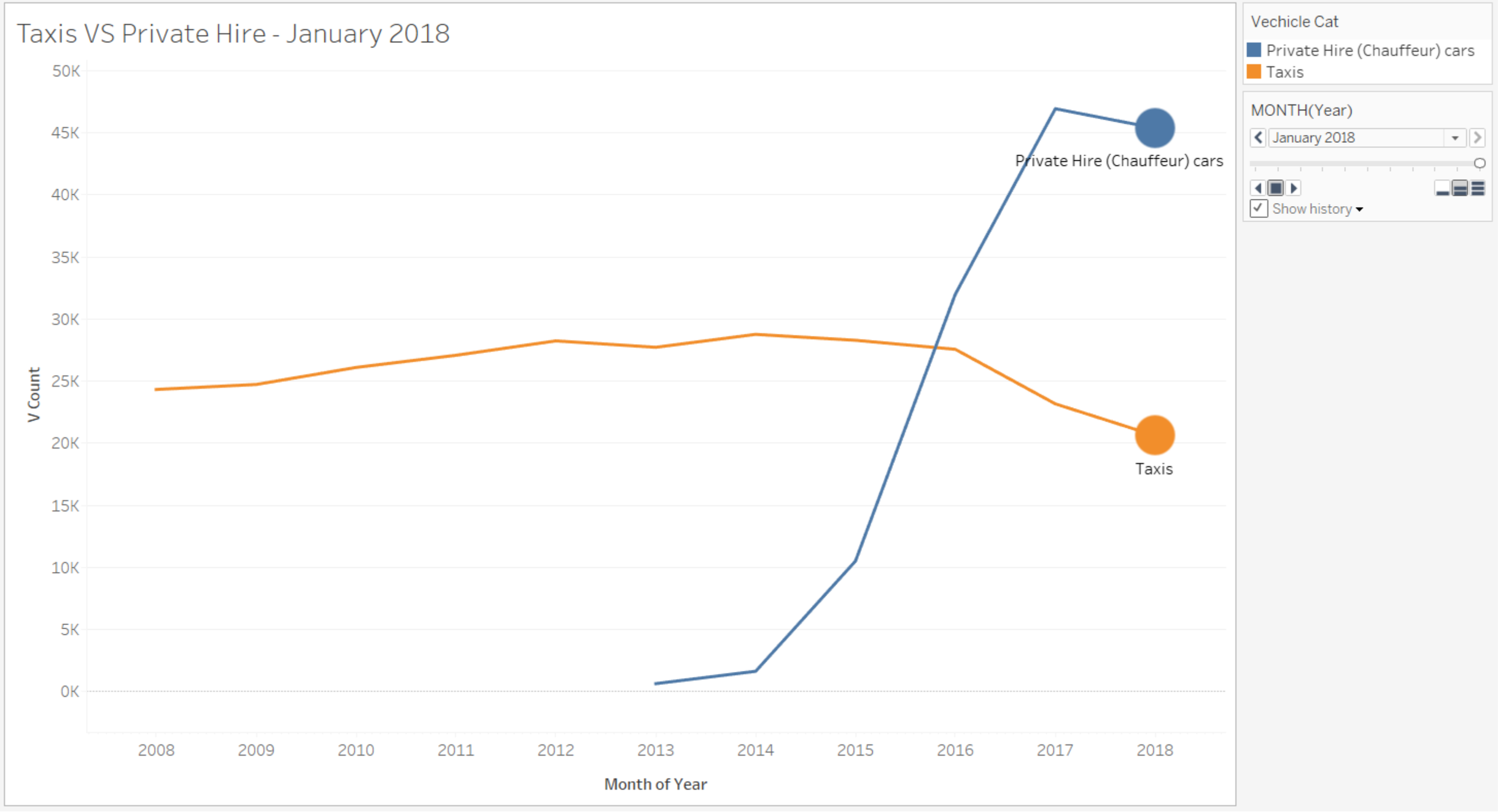
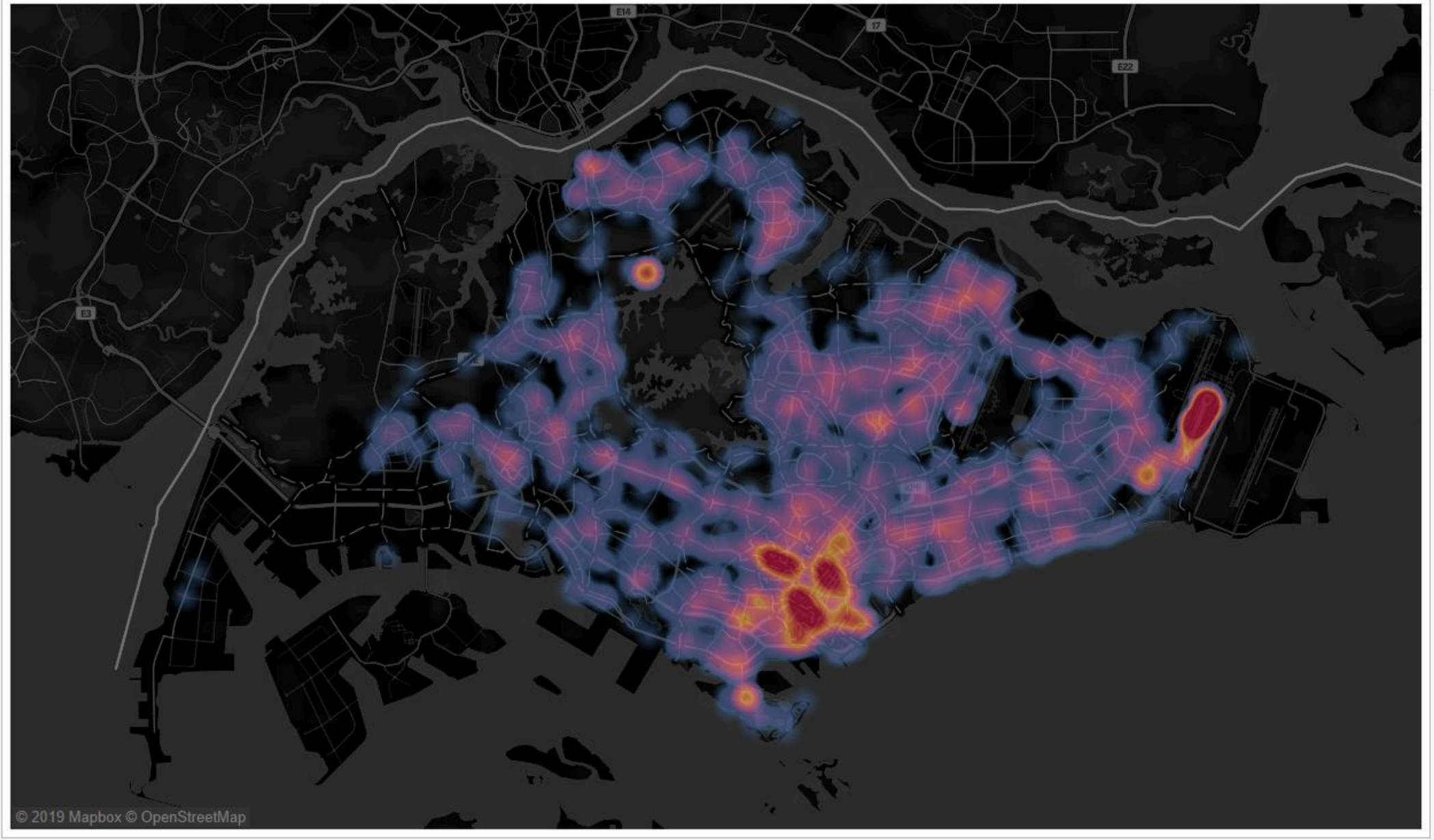

Taxis VS Private Hire - January 2018
50K
45K
40K
35K
30K
25K
20K
15K
10K
5K
0K
V Count
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
Month of Year
Private Hire (Chauffeur) cars
Taxis
Vechicle Cat
Private Hire (Chauffeur) cars
Taxis
MONTH(Year)
January 2018
Show history

Where Are Our Taxis?



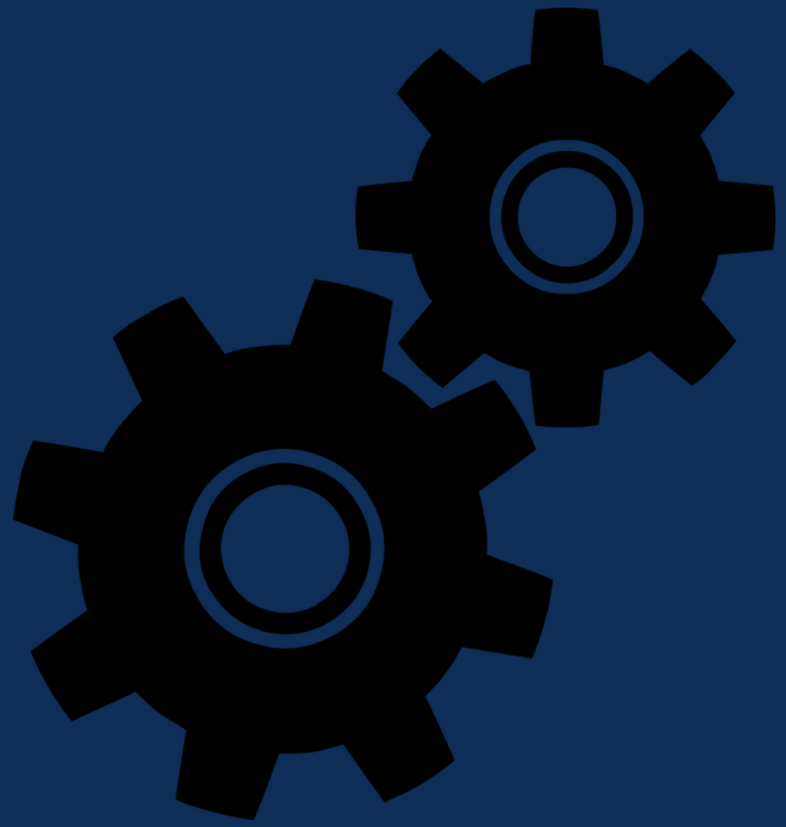
HOUR(CurrentTime)

20

Show history

Outlier Detection & Forecast

R/TabPy Integration



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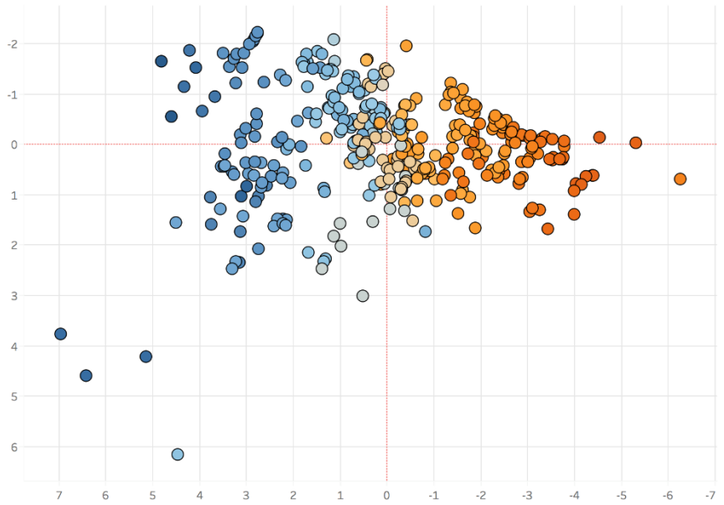
External Services Workflow



PCA Component 1 | Cars

Results are computed along Table (across).

```
SCRIPT_REAL("import pandas as pd
from sklearn.decomposition import PCA
from sklearn.preprocessing import StandardScaler

df = pd.DataFrame({'mpg':_arg1,'Cyl':_arg2,'Cost':_arg3,'EngSize':_arg4,'HP':_arg5,'Len':_arg6,'Width':_arg7})
scale = StandardScaler()
dat = scale.fit_transform(df)

n_comp = len(df.columns)
pca = PCA(n_components = n_comp)
comps = pca.fit_transform(dat)

return list(comps[:,_arg8[0]])",
SUM([City MPG]),
SUM([Cyl]),
SUM([Dealer Cost]),
SUM([Engine Size]),
SUM([HP]),
SUM([Len]),
SUM([Width]),
[Selected PCA Component 1])
```

Default Table Calculation

The calculation is valid. | 2 Dependencies | Apply | OK

Table Calculation
Model Query

Compute Using

Table (across)
Cell

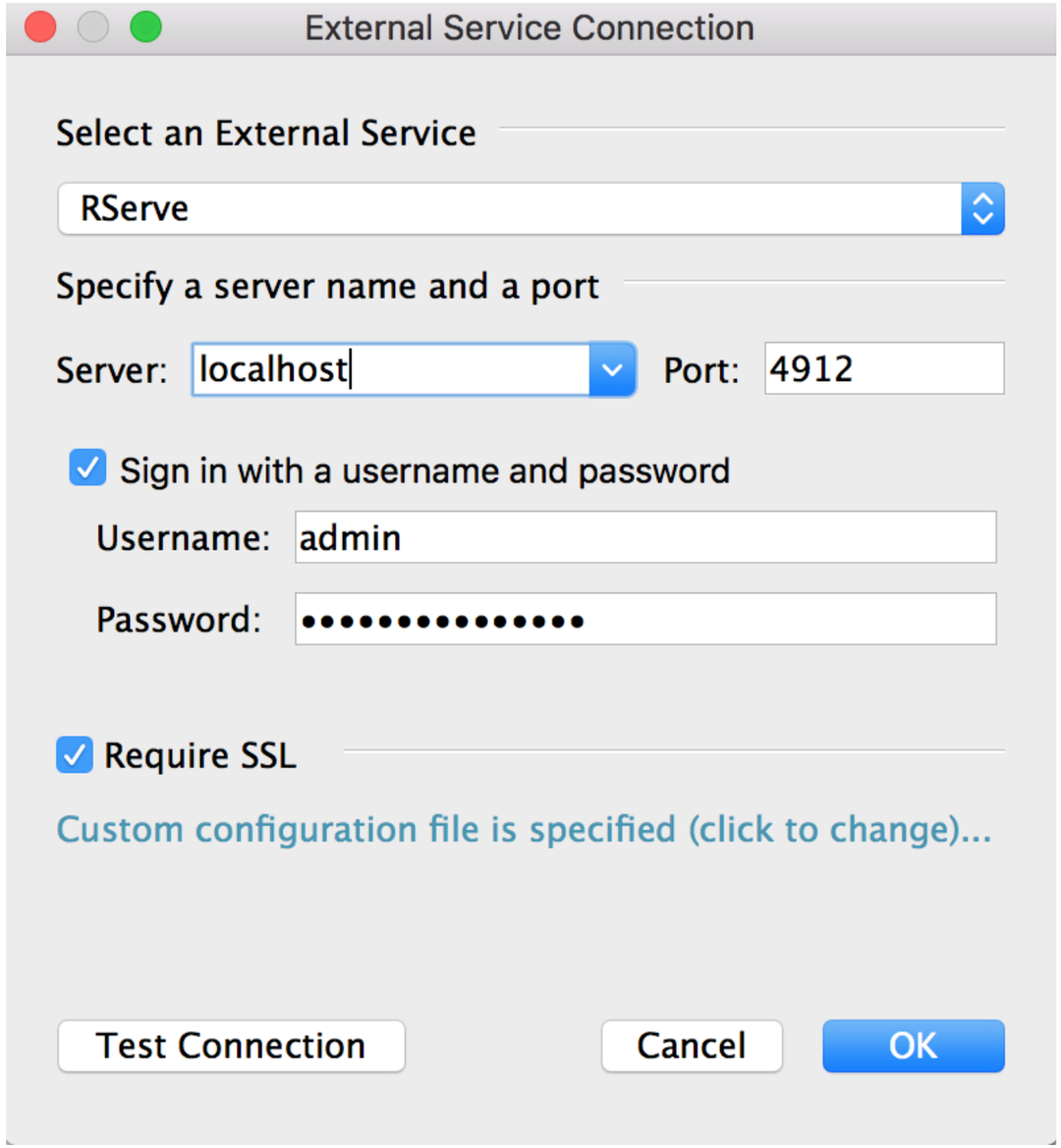
At the level

Restarting every

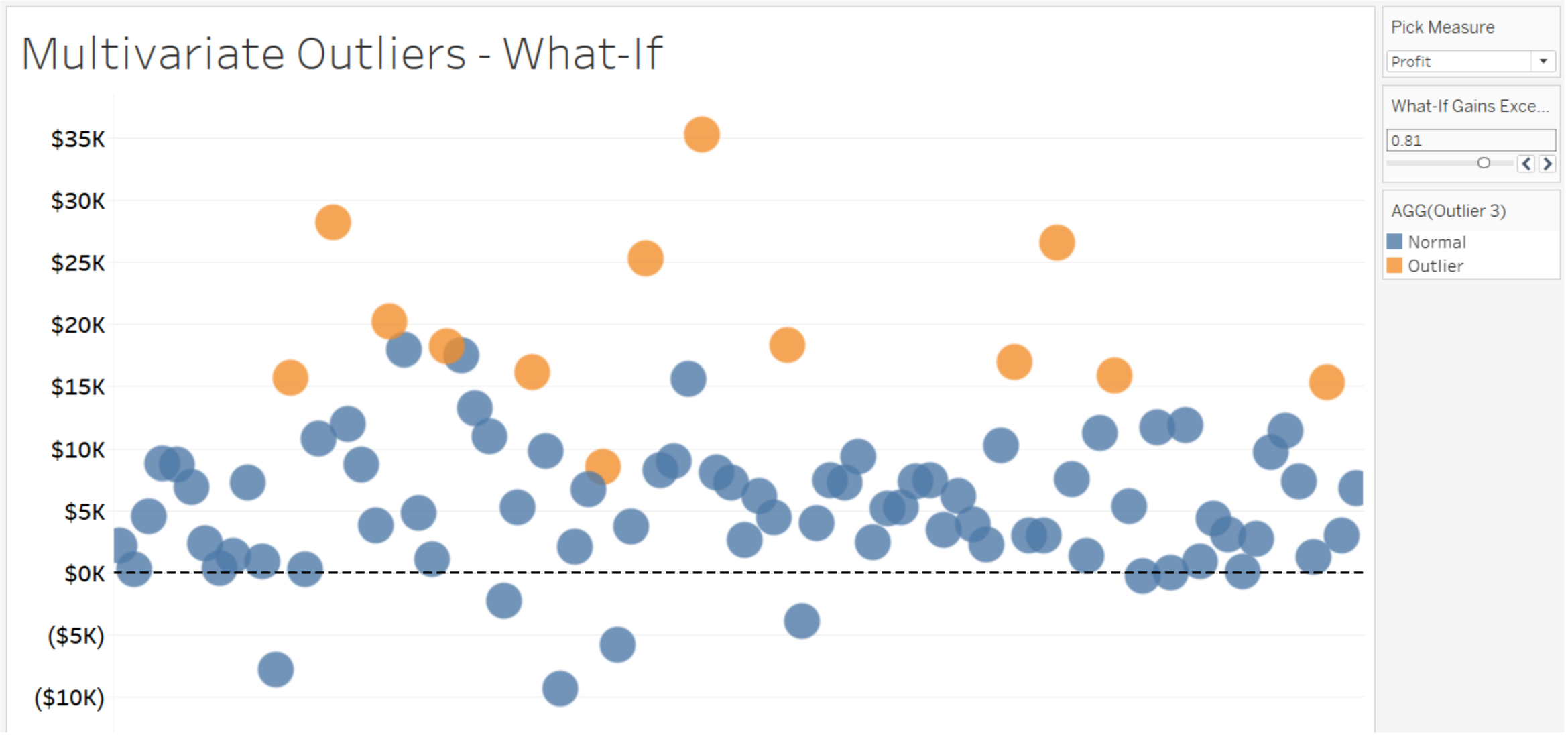
python

R

Connecting to an External Service



- **Supported Connections**
  - Rserve
  - TabPy/MATLAB
- **Connection Information:**
  - Specify Service Type (New!)
  - Choose Host and Port
- **Security:**
  - Authenticate with Username/Password
  - Set up encryption with SSL Cert


Multivariate Outliers - What-If
$35K
$30K
$25K
$20K
$15K
$10K
$5K
$0K
($5K)
($10K)
Pick Measure
Profit
What-If Gains Exce...
0.81
AGG(Outlier 3)
Normal
Outlier

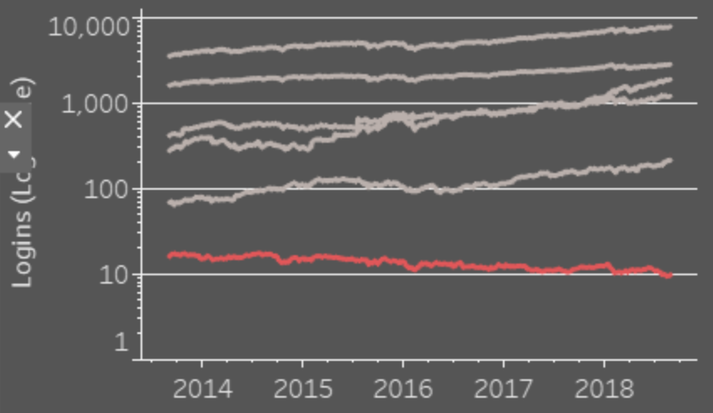
Dynamic Agency Demand Forecast With R

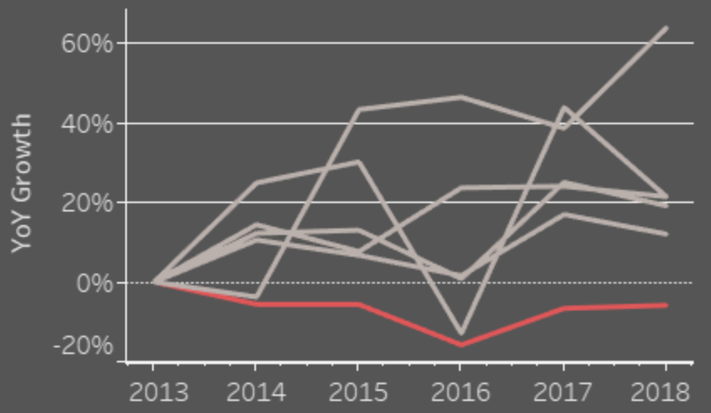
Periods to Forecast

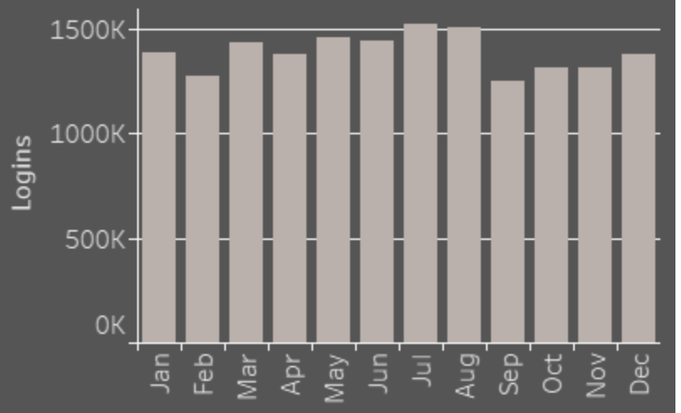
180

Agency Name

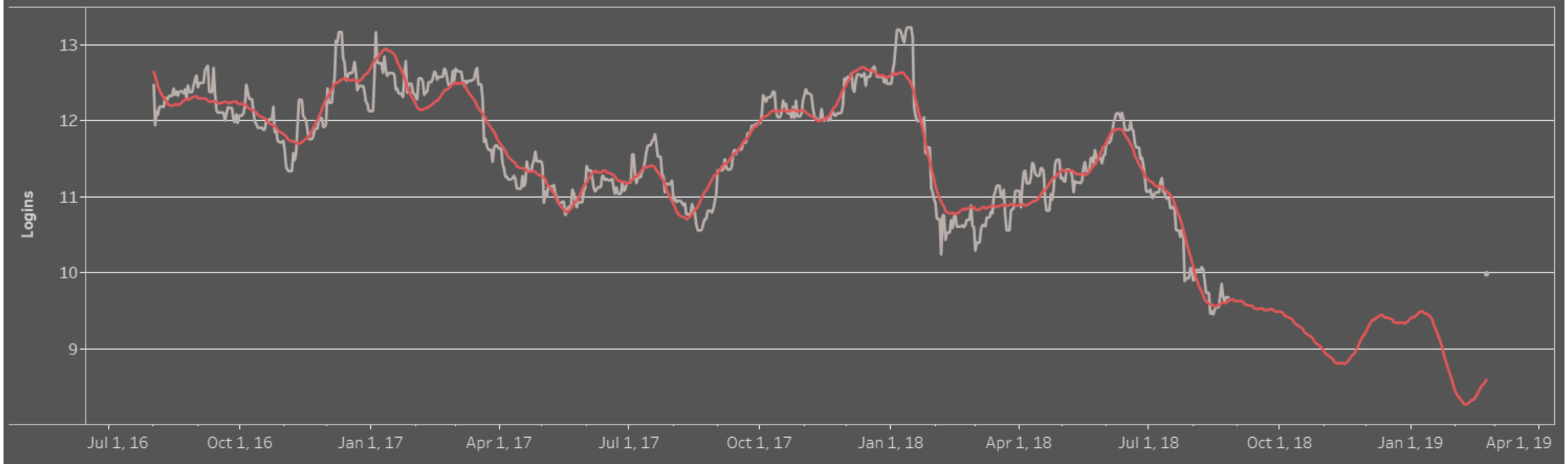
- Agency 1
- Agency 2
- Agency 333
- Agency 4
- Agency 555
- Agency 6







Login Forecast - 180 Days Out



Dynamic Agency Demand Forecast With R

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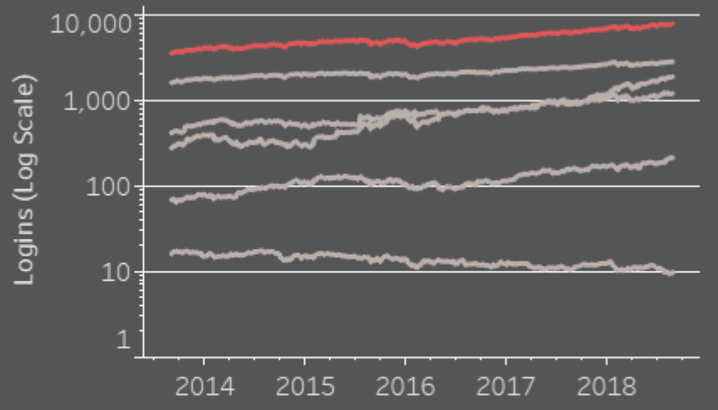

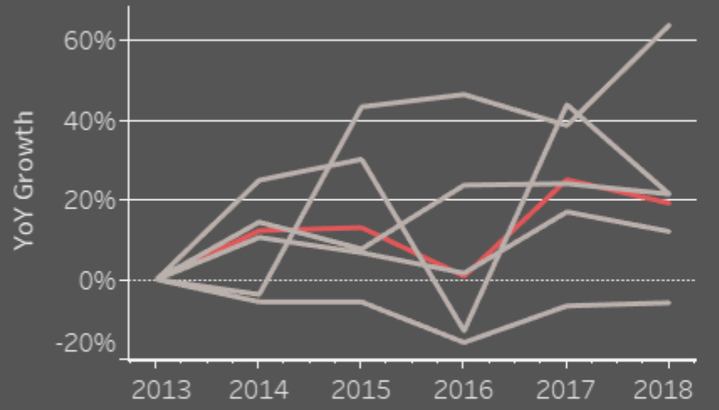

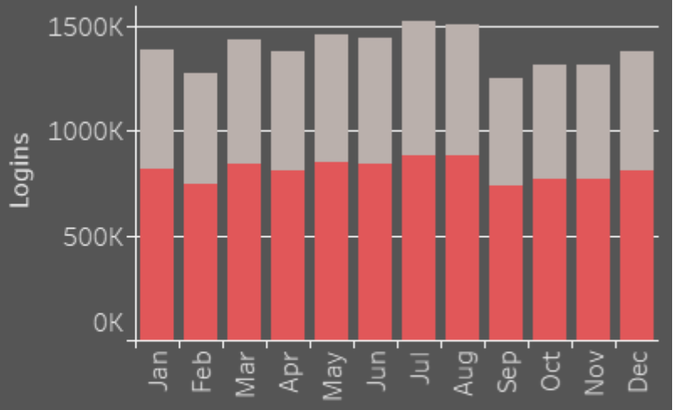

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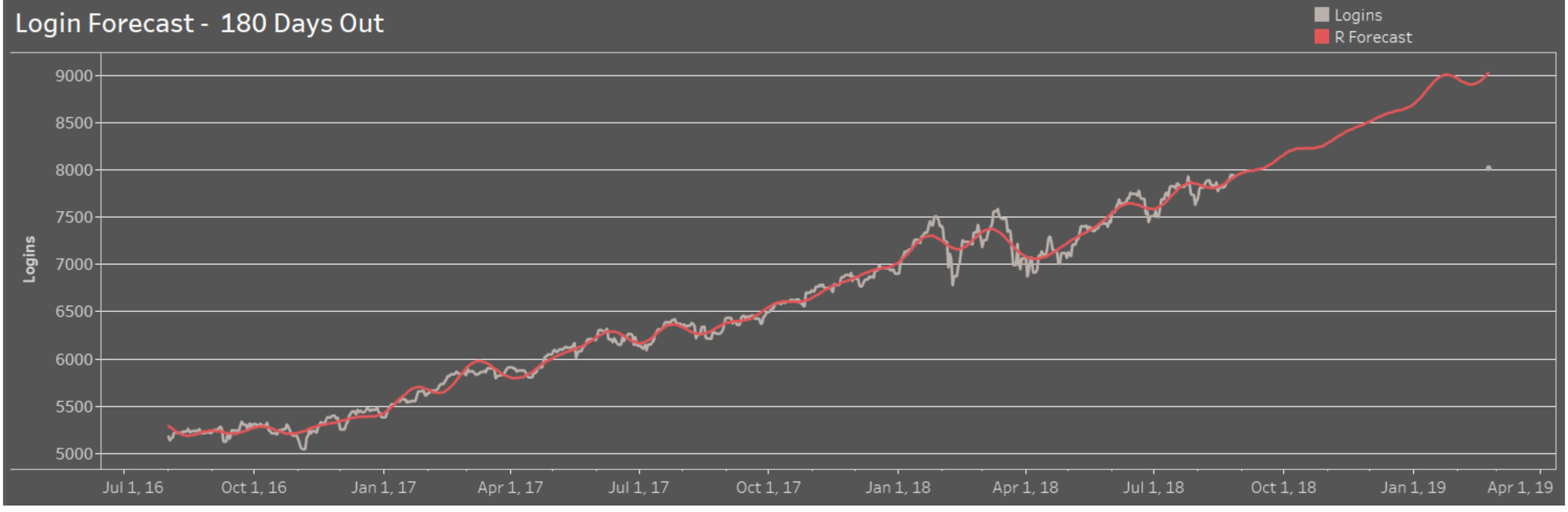

Route Mapping

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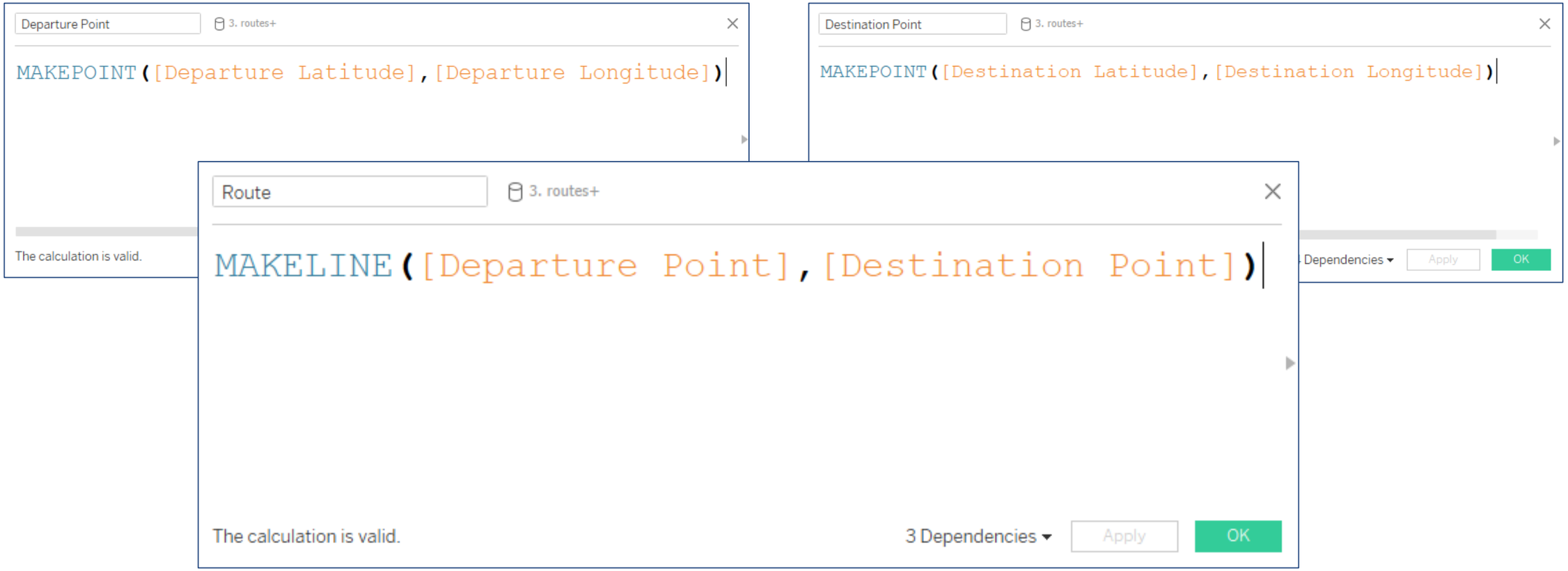
Makepoint & Makeline



Routes of the World

Destinat.. (Multiple values)

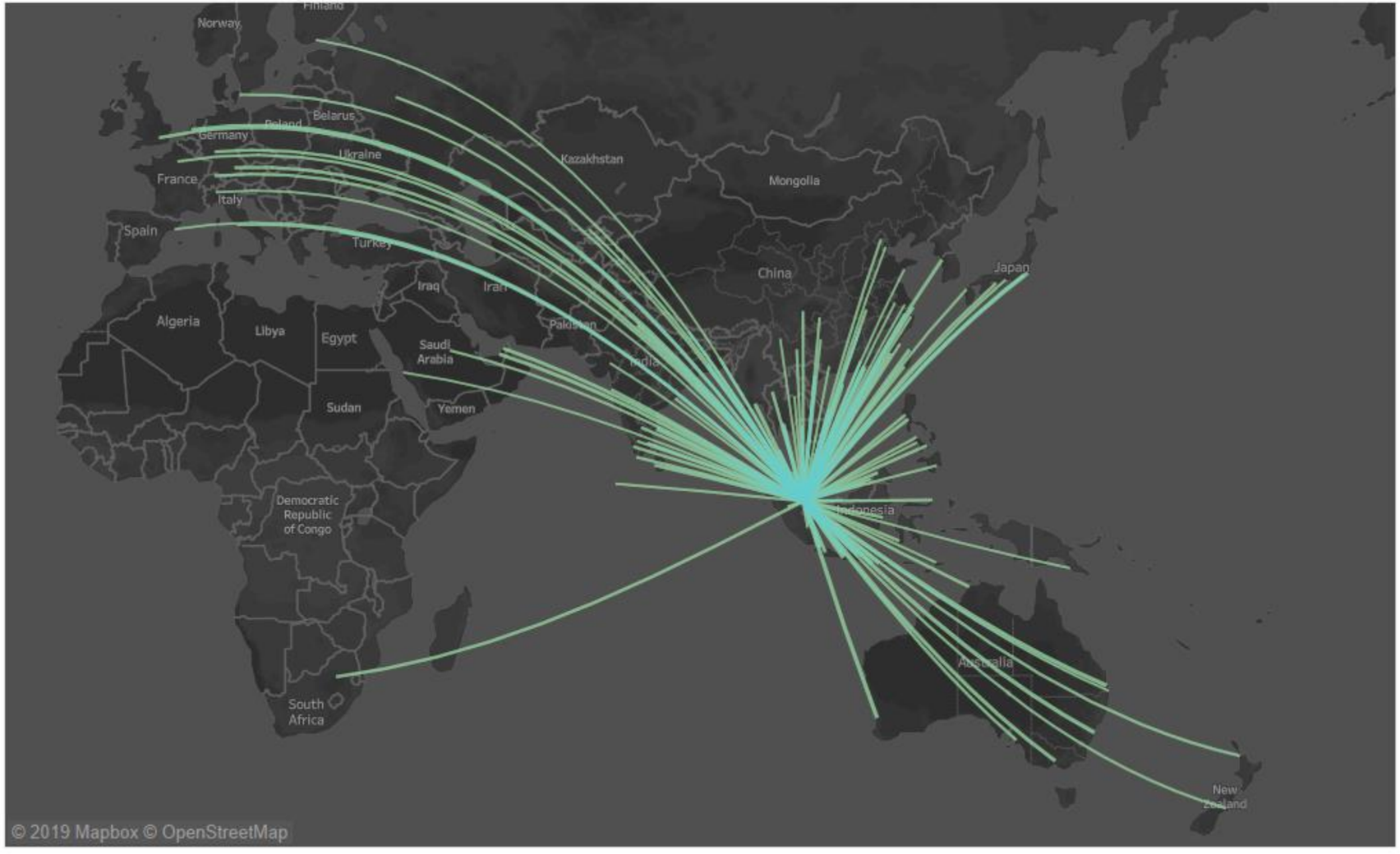
Select d.. Departure Destination

Airline N.. (All)

NUMBER OF ROUTES BY DESTINATION

SELECT AN AIRPORT TO SEE FLIGHTS TO AND FROM IT

ROUTES TO & FROM: Singapore Changi Airport



Mapping
Dynamic Geo-fencing

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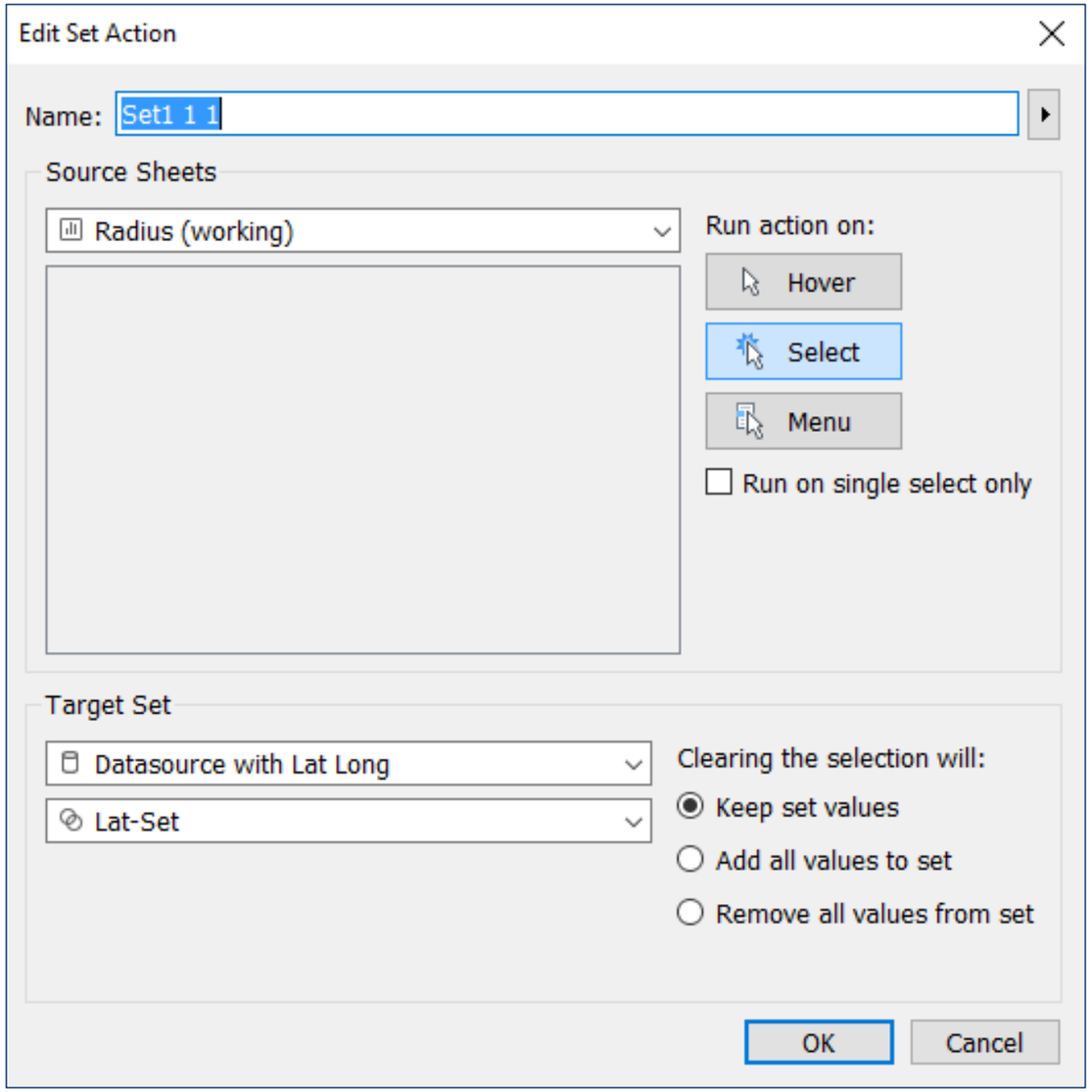
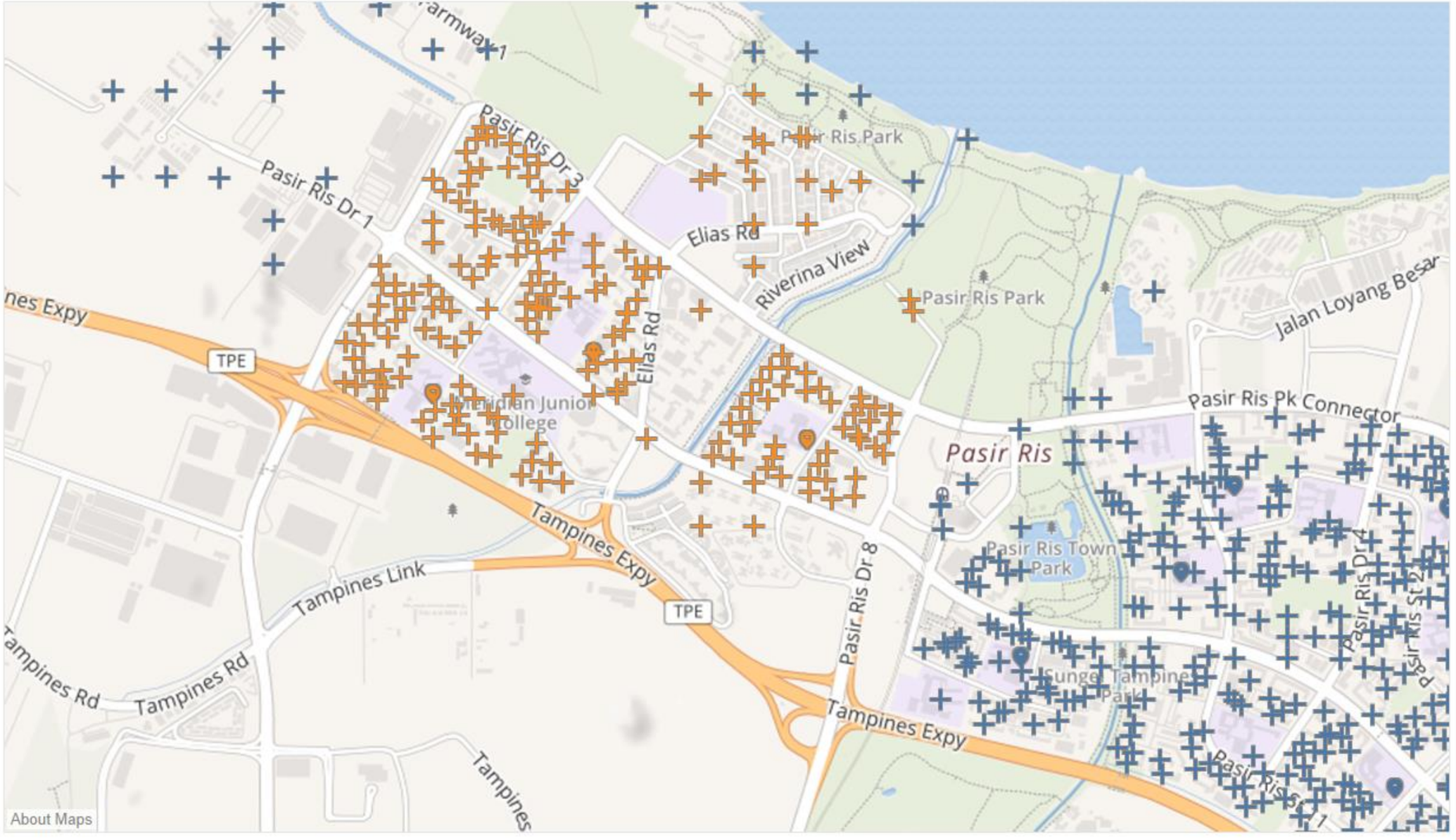
Set Actions


Edit Set Action
Name:
Set1 1 1
Source Sheets
Radius (working)
Run action on:
Hover
Select
Menu
Run on single select only
Target Set
Datasource with Lat Long
Lat-Set
Clearing the selection will:
Keep set values
Add all values to set
Remove all values from set
OK
Cancel

Schools Within 1 KM Distance

Set Radius (KM)

1



Step 1 : Home Town (eg Pasir Ris)

pasir ris

Step 2: SG Postal Code

510571

Step 3 : Highlight School

Highlight School or Home

School or Home

School

Home

Summary

- Creating motion charts / data animation
- Integration with R/TabPy
- Mapping Routes
- Dynamic geo location detection within a radius

tableau®