

Tableau Visualization Set up Guide

Step 0: EC2 Instance configuration

Add Port (5432) to the EC2 Server security group as below:

Security Group: sg-c193c6b8

Description	Inbound	Outbound	Tags
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Edit

Type ⓘ	Protocol ⓘ	Port Range ⓘ	Source ⓘ
Custom TCP Rule	TCP	4040	0.0.0.0/0
Custom TCP Rule	TCP	50070	0.0.0.0/0
Custom TCP Rule	TCP	8888	0.0.0.0/0
Custom TCP Rule	TCP	8080	0.0.0.0/0
PostgreSQL	TCP	5432	0.0.0.0/0

Step 1: Starting a Hive Thrift Server for Remote Hive Access

Mount EBS volume and start Hadoop and PostgreSQL Database:

```
mount -t ext4 /dev/xvdf /data
```

```
/root/start-hadoop.sh
```

```
sudo -u postgres pg_ctl -D /data/pgsql_project2/data -l /data/pgsql_project2/logs/pgsql.log start
```

Start HiveServer2:

```
hive --service hiveserver2
```

Step 2: Connecting Tableau to PostgreSQL in EC2 Instance

Fill in information in the PostgreSQL Connection as below:

Server: EC2 Host

Port: 5432

Database: ontime

Authentication: Username and password

Username: w205

Password: postgres

PostgreSQL Connection

PostgreSQL

Server: Port:

Database:

Enter information to sign in to the database:

Authentication:

Username:

Password:

☐ Require SSL

Step 3: Loading and Joining Tables

Ontime_data a

Join airplane_data b on a.tailnumber = b. tailnumber

Join airport_data c on a.Origin = c. iata

Join weather_date d on a.airport = d.airport and a.FlightDate= d.Date

Tableau - OnTimeProject

File Data Server Window Help

ontime_2015_01+ (ontime)

Connected to PostgreSQL

Server: 54.164.201.85

Database: ontime

Table: Enter table name

- ontime_2014_01
- ontime_2014_02
- ontime_2014_03
- ontime_2014_04
- ontime_2014_05
- ontime_2014_06
- ontime_2014_07
- ontime_2014_08
- ontime_2014_09
- ontime_2014_10
- ontime_2014_11
- ontime_2014_12
- ontime_2015_01
- ontime_2015_02
- ontime_2015_03
- ontime_2015_04
- ontime_2015_05
- ontime_2015_06
- ontime_2015_07
- ontime_2015_08
- ontime_2015_09
- ontime_2015_10
- ontime_2015_11
- ontime_2015_12
- ontime_data

New Custom SQL

ontime_2015_01

- airplane_data
- airport_data
- airport_weather

Sort fields: Data source order

Show aliases Show hidden fields Rows: 1,000

Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc
ontime_2015_01	ontime_2015_01	ontime_2015_01	ontime_2015_01	ontime_2015_01	ontime_2015_01	ontime_2015_01	ontime_2015_01	ontime_2015_01	ontime_2015_01	ontime_2015_01	ontime_2015_01	ontime_2015_01	ontime_2015_01
Tailnum (Airplane ...	Type	Manufacturer	Issue Date	Model	Status	Aircraft Type	Engine Type	Year (Airplane Data)	Iata	Airport	City	State	Country
N63AA	Corporation	BOEING	12/20/1990	757-223	Valid	Fixed Wing Multi-Eng...	Turbo-Fan	1990	DFW	Dallas-Fort Worth Inter...	Dallas-Fort Wor...	TX	USA
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Data Source Sheet 1 Sheet 2