

# Connecting to Impala with Tableau

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# What is Tableau

- Graphically design queries
- Visualize query results
- Create views

# Installing Tableau

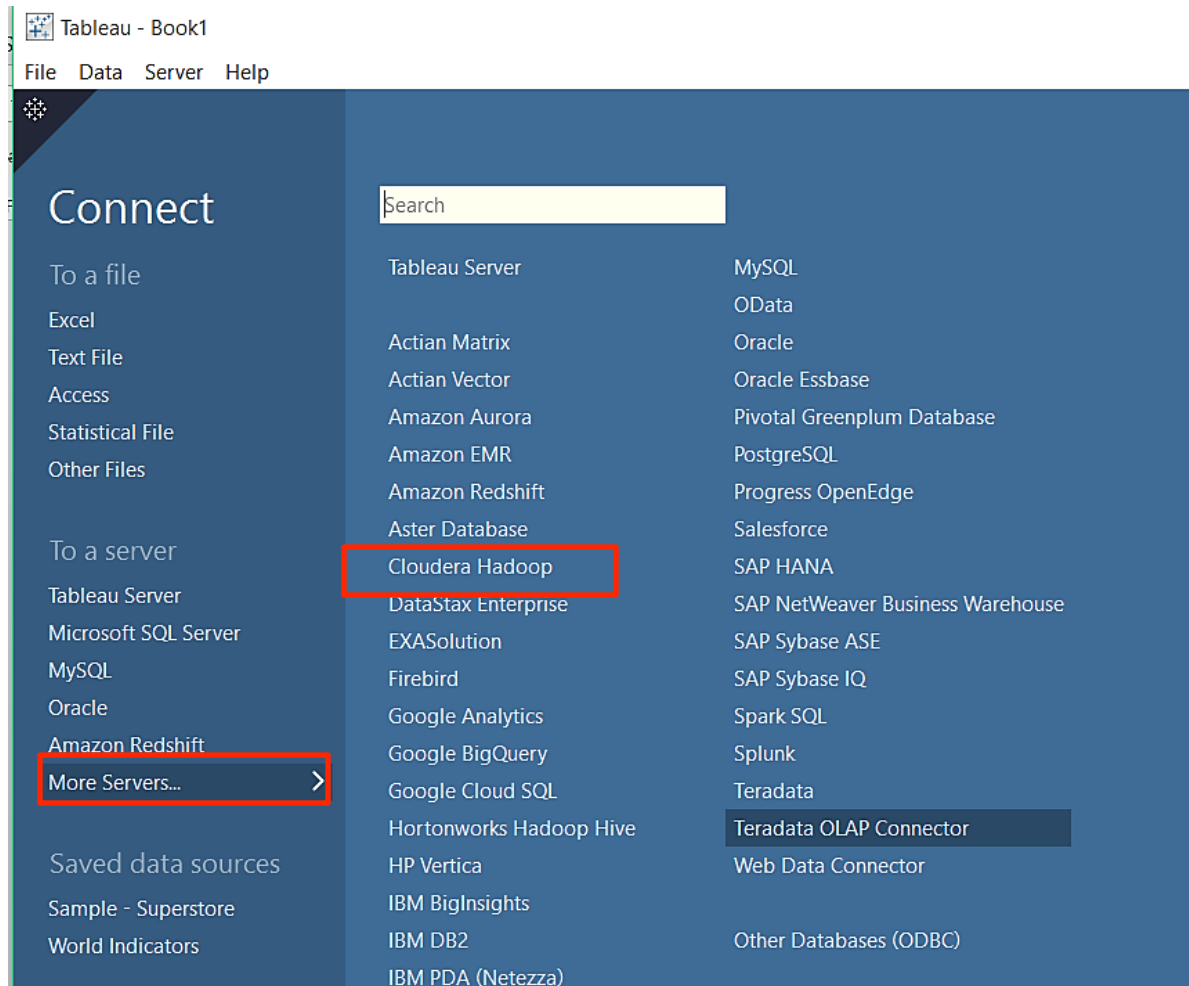
Download a free 14 day trial:

<http://www.tableau.com/products/desktop>

# Connect to impala

From the “Connect” menu:

1. Click on “More Servers”
2. Select “Cloudera Hadoop”



# Connect to impala

1. From the 'Type' drop down, select 'Impala'
2. Enter your Impala host address
3. Enter your impala port (default = 21050)

Server Connection ×

## Cloudera Hadoop

Server:  Port:

Enter information to sign in to the server:

Type:

Authentication:

Username:

Password:

Realm:

Host FQDN:

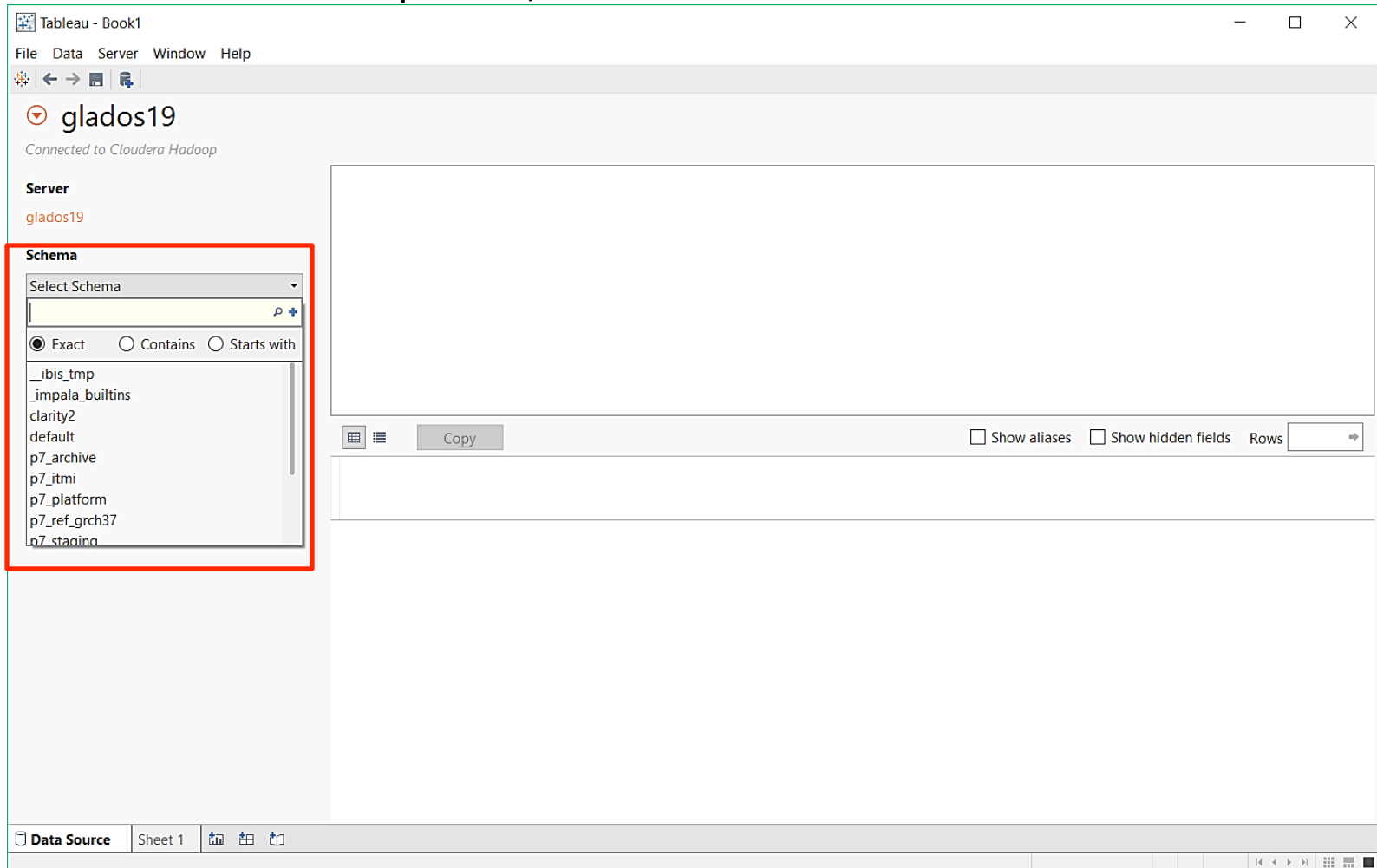
Service Name:

HTTP Path:

[Initial SQL...](#)

# Select a database

From the schema dropdown, select a database



# Select a table

From the table dropdown, double-click to select a table

Tableau - Book1

File Data Server Window Help

◀ ▶ ↺ ↻

🔍 nbs\_ucsc (users\_selasady.nbs\_ucsc) (users\_...

Connected to Cloudera Hadoop

Connection: ☒ Live ☐ Extract

Filters: 0 | Add...

Server: glados19

Schema: users\_selasady

**Table**

Enter table name

☒ Exact ☐ Contains ☐ Starts with

- acmg\_annotated...cmg\_annotated)
- acmg\_kaviar (us...dy.acmg\_kaviar)
- acmg\_ucsc (user...sady.acmg\_ucsc)
- admix\_test (user...sady.admix\_test)
- clarity\_acmg (us...dy.clarity\_acmg)
- clarity\_clinkav (u...y.clarity\_clinkav)
- clarity\_clinsig (u...y.clarity\_clinsig)
- clarity\_clinsig\_re...y.clinsig\_results)
- clarity\_genes (us...dy.clarity\_genes)
- clarity\_nbs\_anno...arity\_nbs\_annot)
- clarity\_nbs\_ann...\_nbs\_annotated)
- nbs\_ucsc (users\_selasady.nbs\_ucsc)

New Custom View

Go to Worksheet

Copy

☐ Show aliases ☐ Show hidden fields Rows

Gene	Entrez Gene Id	Condition	Omim Phenotype	Va Name	Inheritance	Allelic Condition	Comments	Ir
Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	A

Update Now

Automatically Update

Data Source Sheet 1

# View a table

The table will appear in your query window, with all columns listed below

Tableau - Book1

File Data Server Window Help

Connection: ☒ Live ☐ Extract Filters: 0 | Add...

Server: glados19

Schema: users\_selasady

Table: Enter table name

☒ Exact ☐ Contains ☐ Starts with

- acmg\_annotated...cmg\_annotated)
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- admix\_test (user...sady.admix\_test)
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- clarity\_clinkav (u...y.clarity\_clinkav)
- clarity\_clinsig (u...y.clarity\_clinsig)
- clarity\_clinsig\_re...y.clinsig\_results)
- clarity\_genes (us...dy.clarity\_genes)
- clarity\_nbs\_anno...arity\_nbs\_annot)
- clarity\_nbs\_ann...\_nbs\_annotated)
- nbs\_ucsc (users\_selasady.nbs\_ucsc)

New Custom Go to Worksheet

Query Window: nbs\_ucsc

Copy Show aliases Show hidden fields Rows

Gene	Entrez Gene Id	Condition	Omim Phenotype	Va Name	Inheritance	Allelic Condition	Comments	Ir
Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	A

Update Now

Automatically Update



# Select, Hide and Describe Rows

## Click on the drop-down menu next to each column

Tableau - Book1

File Data Server Window Help

nbs\_ucsc (users\_selasady.nbs\_ucsc) (users\_...

Connected to Cloudera Hadoop

**Server**

glados19

**Schema**

users\_selasady

**Table**

Enter table name

☒ Exact ☐ Contains ☐ Starts with

- acmg\_annotated...cmg\_annotated)
- acmg\_kaviar (us...dy.acmg\_kaviar)
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- clarity\_acmg (us...dy.clarity\_acmg)
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- clarity\_clinsig (u...y.clarity\_clinsig)
- clarity\_clinsig\_re...y.clinsig\_results)
- clarity\_genes (us...dy.clarity\_genes)
- clarity\_nbs\_anno...arity\_nbs\_annot)
- clarity\_nbs\_ann...\_nbs\_annotated)
- nbs\_ucsc (users\_selasady.nbs\_ucsc)
- New Custom SQL

nbs\_ucsc

Copy

Gene	Entrez Gene Id	Condition	Omim Phenotype	Va Name	Inheritance	Allelic Condition	Comments
Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc

Update Now

Automatically Update

# Filter Results

1. Click on the “Add” from the filters menu on the right
2. Click on “Add” to add filters to your data set

The screenshot shows the Tableau Desktop interface with a data source named 'nbs\_ucsc (users\_selasady.nbs\_ucsc)+ (p7\_p...' connected to Cloudera Hadoop. The interface includes a 'Server' section with 'glados19' and a 'Schema' section with 'p7\_platform'. The 'Table' section shows 'wgs' with options for 'Exact', 'Contains', and 'Starts with'. A list of tables is displayed, including 'wgs\_comgen\_su...mgen\_summary', 'wgs\_comgen\_var...omgen\_variant', 'wgs\_illumina\_dis...lumina\_distinct', 'wgs\_illumina\_su...lumina\_summary', 'wgs\_illumina\_var...lumina\_variant', and 'New Custom SQL'. A 'Join' dialog box is open, showing a join between 'nbs\_ucsc' and 'wgs\_illumina\_varia' with an 'Inner' join type. The 'Edit Data Source Filters' dialog box is also open, showing a list of filters with the 'Add...' button highlighted. The 'Add Filter' dialog box is open, showing a list of fields to select from, including 'Aa', 'Ad', 'Af', 'Afr Af', 'Allelic Condition', 'Alt', 'Amr Af', 'Asn Af', 'Blockavg Min30P3A', 'Chrom', 'Chrom (Wgs Illumina Varia)', 'Cigar', 'Condition', 'Csq', 'Db', 'Dp', and 'Dpf'. The 'Filters' menu on the right is highlighted, showing '0' filters and an 'Add...' button.

Tableau - Book1

File Data Server Window Help

Connection: ☒ Live ☐ Extract

Filters: 0 | Add...

Server: glados19

Schema: p7\_platform

Table: wgs

Exact Contains ☒ Starts with

Tables:

- wgs\_comgen\_su...mgen\_summary)
- wgs\_comgen\_var...omgen\_variant)
- wgs\_illumina\_dis...lumina\_distinct)
- wgs\_illumina\_su...lumina\_summary)
- wgs\_illumina\_var...lumina\_variant)
- New Custom SQL

Join Dialog:

Data Source	Join Type	Field
nbs_ucsc	Inner	Chrom
wgs_illumina_varia	Inner	Chrom (Wgs Illumin...
	Left	
	Right	
	Full Outer	

Edit Data Source Filters Dialog:

Filter	Details

Add Filter Dialog:

Select a field:

Enter Text to Search

Fields:

- Aa
- Ad
- Af
- Afr Af
- Allelic Condition
- Alt
- Amr Af
- Asn Af
- Blockavg Min30P3A
- Chrom
- Chrom (Wgs Illumina Varia)
- Cigar
- Condition
- Csq
- Db
- Dp
- Dpf

# Join Tables

1. Select another table from the Schema/Table dropdown menus
2. Click on the 'Join' icon to select join type

Tableau - Book1

File Data Server Window Help

nbs\_ucsc (users\_selasady.nbs\_ucsc)+ (p7\_p...

Connected to Cloudera Hadoop

Server  
glados19

Schema  
p7\_platform

Table  
wgs

Exact Contains Starts with

Join

Inner Left Right Full Outer

Data Source wgs\_illumina\_varia

Chrom = Chrom (Wgs Illumin...

Add new join clause

Copy

Show aliases Show hidden fields Rows 10,000

Gene	entrez_gene	Condition	Omim Phenotype	Inheritance	Allelic Condition	Chrom	Txstart	Txend	Mrna
Abc nbs_ucsc	Abc nbs_ucsc	Abc nbs_ucsc	Abc nbs_ucsc	Abc nbs_ucsc	Abc nbs_ucsc	Abc nbs_ucsc	# nbs_ucsc	# nbs_ucsc	Abc nbs_ucsc
ETFDH	2110	Multiple acyl-CoA...	231680	AR		4	159,603,2...	159,629,8...	AK293737
ETFDH	2110	Multiple acyl-CoA...	231680	AR		4	159,593,2...	159,629,8...	EU093083
IDUA	3425	Mucopolysaccha...	607014	AR		4	980,785	998,317	NM_0002C
HADH	3033	3-hydroxyacyl-Co...	231530	AR		4	108,925,7...	108,956,3...	AK096018
PPM1K	152926	Maple syrup urine...	615135	AR		4	89,189,893	89,205,983	AF351614

# Join Tables

Enter parameters to join the tables on

Tableau - Book1

File Data Server Window Help

nbs\_ucsc (users\_selasady.nbs\_ucsc)+ (p7\_p...

Connected to Cloudera Hadoop

**Server**  
glados19

**Schema**  
p7\_platform

**Table**  
wgs

☐ Exact ☐ Contains ☒ Starts with

- wgs\_comgen\_su...mgen\_summary)
- wgs\_comgen\_var...omgen\_variant)
- wgs\_illumina\_dis...lumina\_distinct)
- wgs\_illumina\_su...lumina\_summary)
- wgs\_illumina\_var...lumina\_variant)
- New Custom SQL

Join

Inner Left Right Full Outer

Data Source wgs\_illumina\_varia

Chrom	=	Chrom (Wgs Illumina ...
Txstart	>=	Pos
Txend	=	

Copy

Gene	entrez_gene	C	Omim Phenotype	Inherita
Abc nbs_ucsc	Abc nbs_ucsc	Abc nbs_ucsc	Abc nbs_ucsc	Abc

# View Results

Select to have results automatically updated, or view updates manually

Update Now

Automatically Update

# Save Results

Select to have results automatically updated, or view updates manually

Update Now

Automatically Update