

Tableau Introduction-Assignment 2

1. With the help of the databases of your choice, illustrate the data connection process with a SQL and a NoSQL database server in Tableau. Also, compare the pros and cons of using a SQL database server and a NoSQL database server.

- SQL is the programming language used to interface with Relational Databases. In Relational Database Model, data as records are stored in rows and column-like table structures with logical links between them.
 - Some examples of SQL databases include MySQL, Oracle, PostgreSQL, and Microsoft SQL Server. SQL is a user-friendly language that can be accomplished by simple keywords with little to no coding required.
 - Need to continually increase large space in the hard drive as data grows and faster machines to run the query or processes.
- NoSQL is a class of DBMS that is non-Relational and generally does not use SQL. Data and records are stored in document-based, graph-based file structures.
 - NoSQL database examples include MongoDB, BigTable, Redis, RavenDB, Cassandra, HBase, Neo4j, and CouchDB. NoSQL databases provide affordable options for many organizations.
 - NoSQL queries likely require programming experience. This means more technical and costly staff, like developers or data scientists, will need to perform queries.

2. Connect with the SQL database server of your choice and establish a connection with a dummy database “Employee” containing employee information (employee name, employee id, employee salary, employee department, employee years of experience) in a company. Write an SQL statement using tableau’s custom SQL feature to retrieve the employee id and employee salary in your tableau dashboard.

Connections

127.0.0.1

MySQL

Database

arti_operations

Table

emplyinfo

emplyinfo1

emplyinfo2

emplyinfo3

job

job3

New Custom SQL

New Union

New Table Extension

emplyinfo

Custom SQL Query

emplyinfo

4 fields 10 rows

Name

emplyinfo

Fields

Type	Field Name	Physic...	Rem...
Abc	E Name	emplyinfo	e_name
#	E Age	emplyinfo	e_age
#	E Mobno	emplyinfo	e_mo...
Abc	E Place	emplyinfo	e_place

Abc emplyinfo	# emplyinfo	# emplyinfo	Abc emplyinfo
E Name	E Age	E Mobno	E Place
arti	26	9,861,284,670	bam
rnki	26	9,864,367,882	bam
mamli	22	1,234,567,890	ctp
snli	19	4,321,765,432	ctp
lipsa	18	9,876,543,210	bam
arti	26	9,861,284,670	bam
rnki	26	9,864,367,882	bam
mamli	22	1,234,567,890	ctp
snli	19	4,321,765,432	ctp
lipsa	18	9,876,543,210	bam

Connections

127.0.0.1
MySQL

Database

arti_operations

Table

emplyinfo

emplyinfo1

emplyinfo2

emplyinfo3

job

job3

New Custom SQL

New Union

New Table Extension

emplyinfo

Custom SQL Query

Custom SQL Query

2 fields 10 rows

Name

Custom SQL Query

Fields

Type	Field Name	Physic...	Rem...
Abc	e_name (Custom SQL Query)	Custom ...	e_na...
#	e_age (Custom SQL Query)	Custom ...	e_age ...

Abc Custom SQL Query e_name (Custom SQL Q...	# Custom SQL Query e_age (Custom SQL Que...	
arti	26	
rnki	26	
mamli	22	
snli	19	
lipsa	18	
arti	26	
rnki	26	
mamli	22	
snli	19	
lipsa	18	

127.0.0.1
MySQL

Database
arti_operations

Table
emptyinfo
emptyinfo1
emptyinfo2
emptyinfo3
job
job3
New Custom SQL
New Union
New Table Extension

emptyinfo (arti_operations)

Connection
Live Extract

Custom SQL Query is made of 1 table. ①

Custom SQL Query

edit Custom SQL
select e_name, e_age from emptyinfo

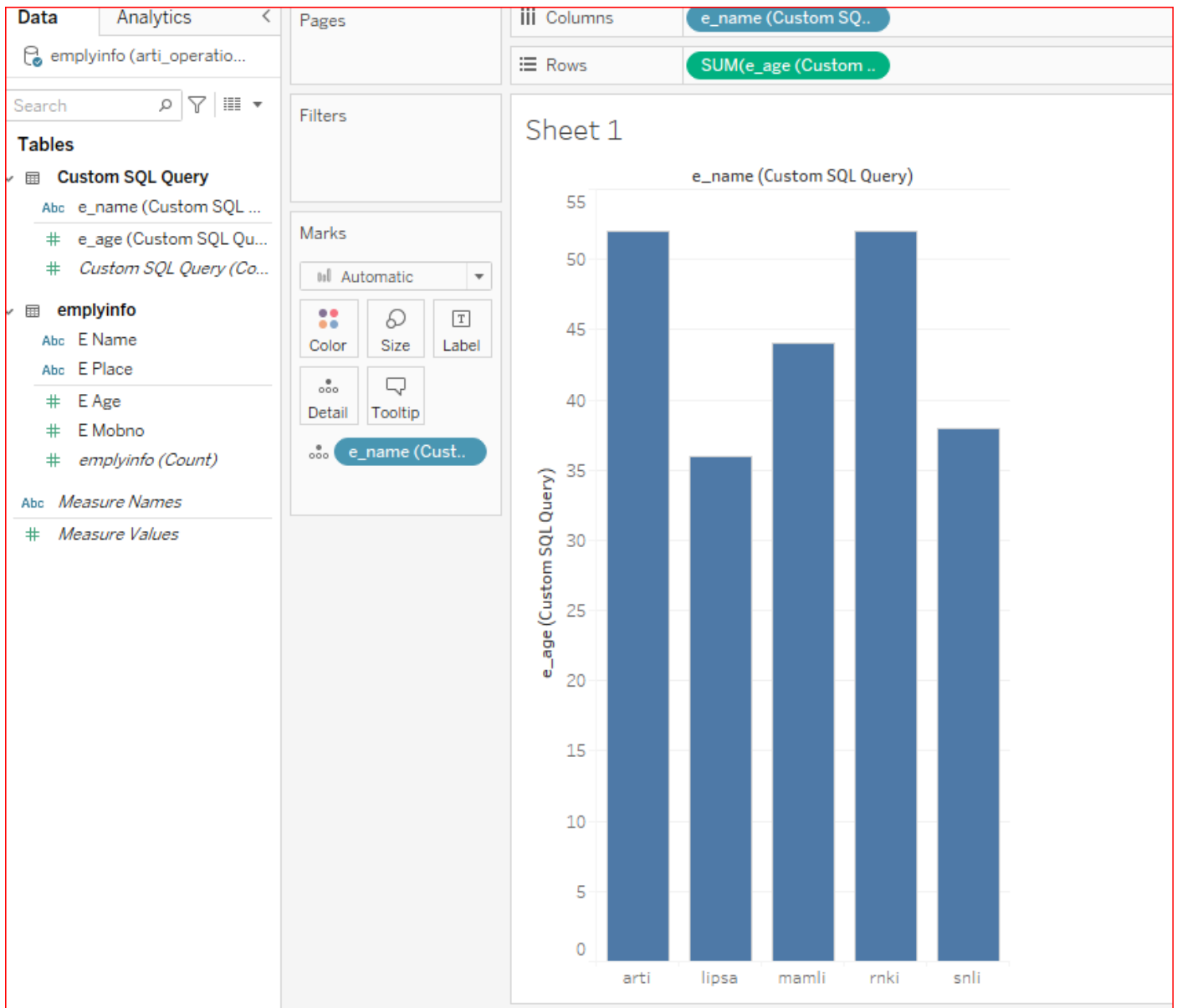
Preview Results... Insert Parameter OK Cancel

Name
Custom SQL Query

Fields

Type	Field Name	Physic...	Rem...
Abc	e_name (Custom SQL Query)	Custom ...	e_na...
#	e_age (Custom SQL Query)	Custom ...	e_age ...

Data SourceSheet 1



3. Imagine you are tasked with maintaining year-wise data of new students that join a certain college. Create three separate excel tables containing data of students for three consecutive years, one for each year, and store it in a common database. Using the features available on the data source page of Tableau, join these tables with the same headers and create a single table.

- I have created 3 tables 2020,2021,2022 of student details and join them by UNION with same header columns.

ConnectionsAdd

students
Microsoft Excel

Sheets

2020

2021

2022

New Union

New Table Extension

2020

2020

3 fields 5 rows

Name
2020

Type	Field Name	Physical Table	Remote Field Name
#	Id	2020	id
Abc	Name	2020	name
#	Year	2020	year

#	Abc	#
2020	2020	2020
Id	Name	Year
101	arati	2020
102	rinki	2020
103	mamali	2020
104	sonali	2020
105	lipsa	2020

ConnectionsAdd

students
Microsoft Excel

Sheets

2020

2021

2022

New Union

New Table Extension

2021

2021

3 fields 5 rows

Name
2021

Type	Field Name	Physical Table	Remote Field Name
#	Id	2021	id
Abc	Name	2021	name
#	Year	2021	year

#	Abc	#
2021	2021	2021
Id	Name	Year
201	arati 1	2021
202	rinki 1	2021
203	mamali 1	2021
204	sonali 1	2021
205	lipsa 1	2021

Connections

Add

students

Microsoft Excel

Sheets

2020

2021

2022

New Union

New Table Extension

2022

2022

3 fields 5 rows

Name

2022

Fields

Type	Field Name	Physical Table	Remote Field Name
#	Id	2022	id
Abc	Name	2022	name
#	Year	2022	year

#	Abc	#	
2022	2022	2022	
Id	Name	Year	
301	arati 2	2022	
302	rinki 2	2022	
303	mamali 2	2022	
304	sonali 2	2022	
305	lipsa 2	2022	

students

Union

Specific (manual)

Wildcard (automatic)

Connection: students

2020

2021

2022

Tables in union: 3

Apply

OK

Connections

students

Microsoft Excel

Add

Sheets

2020

2021

2022

New Union

New Table Extension

Union

5 fields 15 rows

15

Name

Union

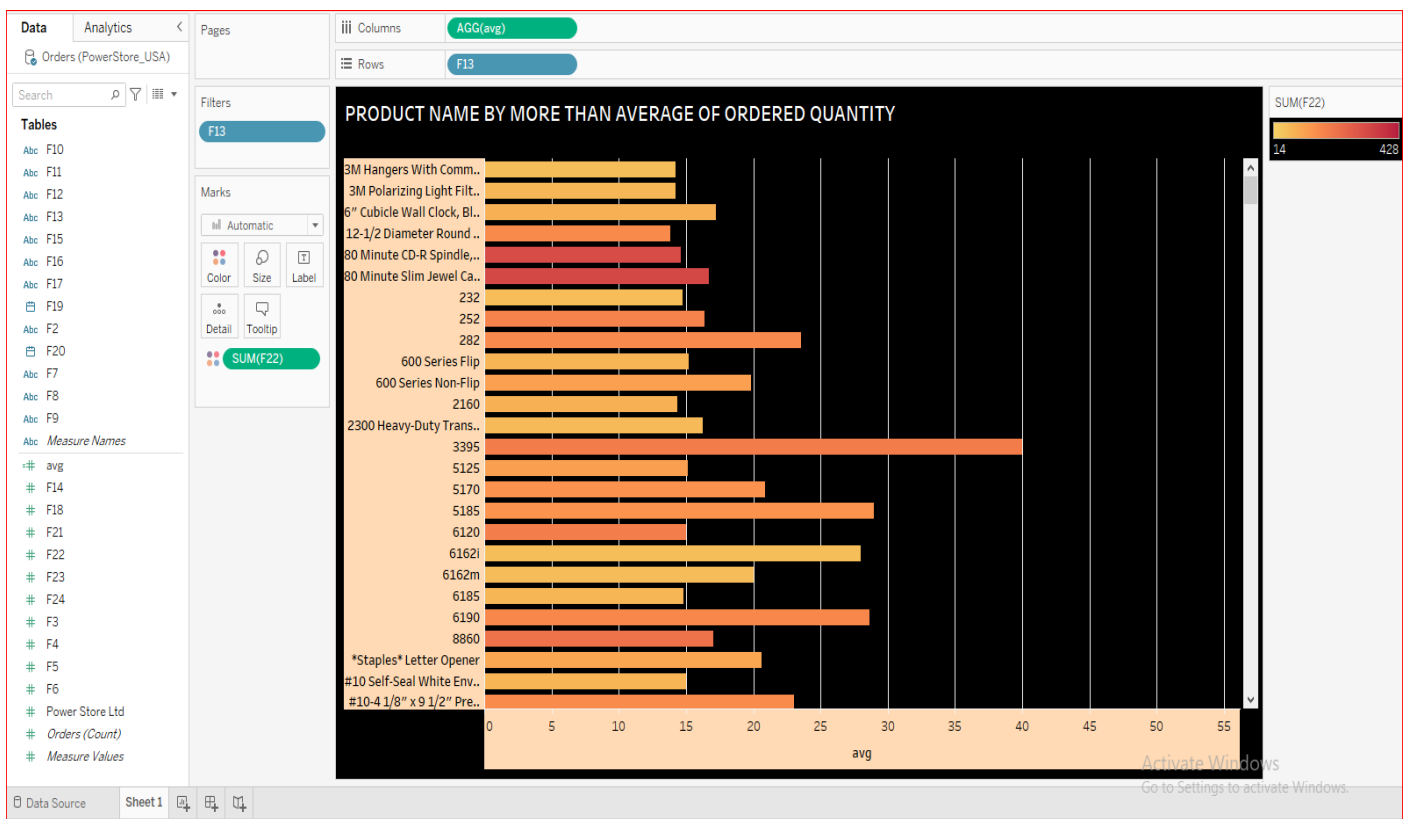
Fields

Type	Field Name	Physical Table	Remote Field Na...
#	id	Union	id
Abc	name	Union	name
#	year	Union	year
Abc	Sheet	Union	Sheet
Abc	Table Name	Union	Table Name

#	Union	Abc	Union	#	Abc	Union	Abc	Union
id	name	year	Sheet	Table Name				
101	arati	2.020	2020	2020				
102	rinki	2.020	2020	2020				
103	mamali	2.020	2020	2020				
104	sonali	2.020	2020	2020				
105	lipsa	2.020	2020	2020				
201	arati 1	2.021	2021	2021				
202	rinki 1	2.021	2021	2021				
203	mamali 1	2.021	2021	2021				
204	sonali 1	2.021	2021	2021				
205	lipsa 1	2.021	2021	2021				
301	arati 2	2.022	2022	2022				
302	rinki 2	2.022	2022	2022				
303	mamali 2	2.022	2022	2022				
304	sonali 2	2.022	2022	2022				
305	lipsa 2	2.022	2022	2022				

Go to Worksheet

4. Using the "PowerStore_USA" dataset, filter and display those products which satisfy the condition wherein the number of the quantity ordered is more than the total average quantity ordered.



5. With respect to the “PowerStore_USA” dataset, apply a filter to your data such that only those values where the “Product-Category” starts with the letter “O” get displayed.

The screenshot shows the Power BI Desktop interface. In the Filter pane on the left, 'F10' is selected. A 'Filter [F10]' dialog box is open, showing the 'General' tab. The 'Match value' field contains 'O'. The 'Starts with' radio button is selected. The 'Include all values when empty' checkbox is unchecked. The 'OK' button is highlighted.

