



PADDYPOWER.

 betfair

Data trecută...



Am generat mai multe date de test și am verificat corectitudinea datelor.

```
SELECT
    s.stream_id,
    a.full_name,
    a.country,
    song.song_title,
    d.date
FROM
    `music-streaming-332016.star_schema.fact_streams` s
JOIN
    `music-streaming-332016.star_schema.dim_account` a
ON
    a.account_id = s.account_id
JOIN
    `music-streaming-332016.star_schema.dim_song` song
ON
    CAST (s.song_id AS integer) = song.song_id
JOIN
    `music-streaming-332016.star_schema.dim_date` d
ON
    s.stream_date_id = d.date_id
WHERE
    date = '2019-06-05'
    AND full_name = 'Karli Johnston';
```

Row	stream_id	full_name	country	song_title	date
1	51431	Karli Johnston	Romania	distinctio dolore et	2019-06-05
2	51431	Karli Johnston	Romania	distinctio dolore et	2019-06-05

Raportarea În Tableau



streaming-reports

File Data Worksheet Dashboard Analysis Map Format Help

Publish Odette Duma

Tipuri de vizualizări Show Me

Drag & Drop

YoY Accounts & Streams

Count of dim_account

Year of Quarter Start Date

Count of dim_account

CNT(dim_account)

CNT(fact_streams)

Measure Names

Colour Size Label Detail Tooltip Path

Columns YEAR(Quarter Start Date)

Rows CNT(dim_account) CNT(fact_streams)

Pages

Tables

dim_account

- # Account Id
- Address.Street Name
- # Address.Street Number
- country, address.city
- Date Of Birth
- Email Address
- Full Name
- Gender
- # dim_account (Count)

dim_date

- Date
- Date Id
- Datetime
- Month End Date
- Month Start Date
- Quarter End Date
- Quarter Start Date
- Week End Date
- Week Start Date
- # dim_date (Count)

dim_song

- Album Id
- Band Id
- Lyrics

Data Source Accounts per Country as Map Ratings per Country YoY Accounts & Streams

12 marks 1 row by 1 column SUM of CNT(dim_account): 2,549

Year of Quarter Start Date	Count of dim_account	CNT(fact_streams)
2017	340	350
2018	375	380
2019	375	380
2020	385	385
2021	370	370
2022	0	0

Raportarea În Tableau



- În Tableau ne putem folosi de date din mai multe surse
- Acestea pot fi locale (extracturi de date încărcate sau o conexiune cu o bază de date locală), sau în Cloud (conexiune cu o bază de date în Cloud)
- Putem folosi atât tabele (datasets) întregi, cât și subseturi de date (Custom SQL / Custom Union)
- Pentru exemplul prezentat am folosit Tableau online
- Am creat un nou proiect căruia i-am adăugat o sursă de date folosind conectorul Google BigQuery

Raportarea În Tableau



Screenshot of the Tableau Online interface showing the creation of a new project.

The browser address bar shows `dub01.online.tableau.com`. The search bar at the top right contains the text "Search for views, metrics, workbooks and more".

The left sidebar menu includes:

- Home
- Favourites
- Recents
- Shared with Me
- Recommendations
- Personal Space
- Collections
- Explore** (selected)
- Users
- Groups
- Schedules
- Jobs
- Tasks
- Site Status
- Settings

The main content area displays the "Explore" page with "Top-Level Projects". A modal window titled "New Project" is open, prompting the user to "Enter a name for the new project:" with the value "music-streaming-project" entered. The modal also includes a "Description" field, a note about the "default" project, character count information (4,000 characters remaining), and links for "Show formatting hints", "Cancel", and "Create".

Raportarea în Tableau



Tableau Online | < > | B+ | 🔒 | 🛡️ | dub01.online.tableau.com | 🗂️ | ⏪ | + | 📊 | music-streaming-project - Tableau Online | SQL workspace - BigQuery - music-streaming - Google Cloud Platform | ? | 🔔 | OD | Search for views, metrics, workbooks and more

Explore / music-streaming-project

music-streaming-project ★ ⓘ ...

Owner Odette Duma

New ▾ Select All

- Project
- Workbook
- Flow
- Published Data Source
- Virtual Connection

Content Type: All Sort By: Type

Upload Workbook

Home Favourites Recents Shared with Me Recommendations Personal Space Collections Explore

Users Groups Schedules Jobs Tasks Site Status Settings

There is nothing here yet.

The screenshot shows the Tableau Online interface. The top navigation bar includes links for Paddy Power and betfair, along with the current URL (dub01.online.tableau.com). The main area displays the 'Explore' page for a project named 'music-streaming-project'. A context menu is open under the 'New' button, listing options like Project, Workbook, Flow, Published Data Source, and Virtual Connection. Below the menu, there's a search bar and filter controls for content type and sort order. The left sidebar contains links for Home, Favourites, Recents, Shared with Me, Recommendations, Personal Space, Collections, and Explore. The bottom section of the page displays a message: 'There is nothing here yet.'

Raportarea În Tableau



Screenshot of the Tableau Online interface showing the "New Data Source" page.

The browser address bar shows `dub01.online.tableau.com`. The page title is "music-streaming-project - Tableau Online". The top navigation bar includes "Edit | New Workbook" and "SQL workspace – BigQuery – music-streaming – Google Cloud Platform". The user is signed in as "Odette Duma".

The main content area is titled "Connect to Data" with the sub-instruction "Connect to the data you need to visualise. [Learn more](#)". Below this, there are tabs: "On This Site", "Files", "Connectors" (which is selected), and "Dashboard Starters".

The "Connectors" section displays a grid of data source options:

Category	Source	Destination	Tool	
Cloud	Alibaba AnalyticDB for MySQL	Box	Google Drive	Presto
Cloud	Alibaba Data Lake Analytics	Cloudera Hadoop	Impala	Qubole Presto
Cloud	Amazon Athena	Databricks	Kyvos	Salesforce
Cloud	Amazon Aurora for MySQL	Datorama	Microsoft SQL Server	SharePoint Lists
Cloud	Amazon EMR Hadoop Hive	Denodo	MongoDB BI Connector	SingleStore
Cloud	Amazon Redshift	Dremio	MySQL	Snowflake
Cloud	Apache Drill	Dropbox	OData	Spark SQL
Cloud	Azure Data Lake Storage Gen2	Exasol	OneDrive	Teradata
Cloud	Azure SQL Database	Google BigQuery	Oracle	Vertica
Cloud	Azure Synapse Analytics	Google Cloud SQL	PostgreSQL	

The "Google BigQuery" connector is highlighted with a gray background. The bottom navigation bar includes "Data Source", "Scratchpad", and other icons.

Raportarea În Tableau



- Pentru a ne putea accesa datasetul din BigQuery, este necesar să permitem accesul din Tableau
- La fereastra Choose an account / Alegeti un cont, trebuie să alegem contul în care există proiectul în Google Cloud
- Odată accesul obținut, ar trebui ca datasetul să fie vizibil din Tableau
- Mai departe, am selectat un Billing Account, proiectul din Google Cloud și datasetul, apoi am publicat Data Source-ul pentru a putea fi folosit în workbook.

Raportarea În Tableau



Screenshot of the Tableau Data Source configuration interface.

The title bar shows the URL `dub01.online.tableau.com`.

The top menu bar includes File, Data, Help, Publish As..., and Odette Duma.

The left sidebar contains:

- Connections**: A list showing "BigQuery" selected under "Google BigQuery".
- Billing Project**: A dropdown menu labeled "Select Billing Project (Optional)".
- Project**: A dropdown menu labeled "Select Project".

The main workspace displays a grid icon and the placeholder text "Drag tables here".

Bottom navigation bar includes Data Source, Scratchpad, and other icons.

Raportarea În Tableau



New Data Source

File Data Help

Publish As... Odette Duma

Connections

BigQuery Google BigQuery

Billing Project

music-streaming

Project

music-streaming

Dataset

Select Dataset

Search star_schema

Drag tables here

Data Source Scratchpad

Raportarea În Tableau



Screenshot of the Tableau Online interface showing the process of creating a new data source from a BigQuery connection.

The interface includes:

- Connections:** BigQuery (Google BigQuery) is selected.
- Billing Project:** music-streaming
- Project:** music-streaming
- Dataset:** star_schema
- Table:** dim_song is selected.
- Fields:** Song Id, Band Id, Album Id, Song Title, Lyrics, Ratings.Stars, Rating.
- Actions:** A context menu for the dim_song table is open, showing options: Open..., Rename, Convert to Custom SQL (which is highlighted), Remove, and Convert to Union... A tooltip "Need more data? Drag tables here to relate them." is visible.
- Buttons:** Publish As... (blue button), Odette Duma (user dropdown), and a "Show Me" button.
- Bottom Navigation:** Data Source, Scratchpad, and other icons.

Raportarea În Tableau



Screenshot of the Tableau Online interface showing the 'New Data Source' setup for a 'music-streaming-project'.

The 'Connections' pane shows a selected 'BigQuery Google BigQuery' connection.

The 'dim_song (star_schema)' dataset is currently selected. A context menu is open over the 'dim_song' table, with the 'Convert to Custom SQL' option highlighted.

The 'Fields' section displays the schema for the 'dim_song' table:

Type	Field Name	Physical Table	Remote ...
#	Song Id	dim_song	song_id
#	Band Id	dim_song	band_id
#	Album Id	dim_song	album_id

Buttons for 'Update Now' and 'Update Automatically' are visible at the bottom right of the Fields section.

The 'Table' pane on the left lists available tables: dim_account, dim_date, dim_song, fact_streams, New Custom SQL, New Union, and Use Legacy SQL.

The top navigation bar includes tabs for 'Edit | New Workbook' and 'SQL workspace – BigQuery – music-streaming – Google Cloud Platform'.

Raportarea În Tableau



Screenshot of the Tableau Online interface showing the process of creating a new data source from BigQuery.

The interface includes:

- Connections:** BigQuery (Google BigQuery) selected.
- Billing Project:** music-streaming
- Project:** music-streaming
- Dataset:** star_schema
- Table:** dim_song selected.
- Fields:** Song Id, Band Id, Album Id.

A modal window titled "Convert to SQL" displays the following query:

```
SELECT `dim_song`.`album_id` AS `album_id`,  
       `dim_song`.`band_id` AS `band_id`,  
       `dim_song`.`lyrics` AS `lyrics`,  
       `ratings`.`comment` AS `ratings_comment`,  
       `ratings`.`stars` AS `ratings_stars`,  
       `dim_song`.`song_id` AS `song_id`,  
       `dim_song`.`song_title` AS `song_title`  
  FROM `music-streaming-332016.star_schema`.`dim_song` `dim_song`,  
       UNNEST(`ratings`) `ratings`
```

Buttons in the modal include "Preview Results...", "Insert Parameter:", and "Create a New Parameter..." (highlighted).

At the bottom right of the main interface, there are "Update Now" and "Update Automatically" buttons.

Raportarea În Tableau



Screenshot of the Tableau Online interface showing the creation of a new data source from a BigQuery connection.

The interface includes:

- Connections:** BigQuery (Google BigQuery) selected.
- Billing Project:** music-streaming
- Project:** music-streaming
- Dataset:** star_schema
- Table:** dim_song (selected), fact_streams, dim_account, dim_date, New Custom SQL, New Union, Use Legacy SQL.

The main workspace shows the creation of a new table named "dim_song" based on the "dim_song" schema. The "Convert to SQL" section displays the following query:

```
SELECT `dim_song`.`album_id` AS `dim_song`.`band_id` AS `band_id`, `dim_song`.`lyrics` AS `lyrics`, `ratings`.`comment` AS `ratings_comment`, `ratings`.`stars` AS `ratings_stars`, `dim_song`.`song_id` AS `song_id`, `dim_song`.`song_title` AS `song_title`, `UNNEST(`ratings`)` `ratings`
```

A preview window titled "View Data: Custom SQL" shows 1000 rows of sample data:

lyrics	ratings_comment	song_title	album_id
Facere inventore praesentium...	Et quia est iste officia reiciendi...	sit blanditiis voluptatem	42901
Facere inventore praesentium...	Possimus quia ullam tempore...	sit blanditiis voluptatem	42901
Facere inventore praesentium...	Nemo minus quam aut fuga...	sit blanditiis voluptatem	42901
Facere inventore praesentium...	Quia similique veniam numqu...	sit blanditiis voluptatem	42901
Facere inventore praesentium...	Est sequi amet est. Natus in re...	sit blanditiis voluptatem	42901
Facere inventore praesentium...	Ipsam necessitatibus tempor...	sit blanditiis voluptatem	42901
Facere inventore praesentium...	Blanditiis totam ratione volupt...	sit blanditiis voluptatem	42901
Facere inventore praesentium...	Blanditiis occaecati odio et. A...	sit blanditiis voluptatem	42901
Facere inventore praesentium...	Quos a earum porro commodi...	sit blanditiis voluptatem	42901
Facere inventore praesentium...	Ea explicabo culpa occaecati v...	sit blanditiis voluptatem	42901
Facere inventore praesentium...	Quos ipsa autem. Ut incidunt...	sit blanditiis voluptatem	42901
Facere inventore praesentium...	Quia tenetur minus minima au...	sit blanditiis voluptatem	42901

At the bottom, there are buttons for "Update Now" and "Update Automatically".

Raportarea În Tableau



Screenshot of the Tableau Online interface showing the 'New Data Source' setup for a 'Custom SQL Query+ (star_schema)'.

The interface includes:

- Connections:** BigQuery (Google BigQuery) selected.
- Billing Project:** music-streaming
- Project:** music-streaming
- Dataset:** star_schema
- Table:** dim_account, dim_date, dim_song, fact_streams, New Custom SQL, New Union, Use Legacy SQL.

The main workspace displays a relationship between 'dim_song' and 'fact_streams'. A warning message states:
Relationship: dim_song to fact_streams
Cardinality: Many to Many (default)
⚠ This relationship has no matching fields. Edit the relationship to select matching fields.

Below the workspace, a section titled 'How do relationships differ from joins?' provides instructions for creating relationships between 'dim_song' and 'fact_streams' using operators like '=', '<=' etc. It also notes 'Data preview unavailable' and 'Select matching fields to create this relationship.'

Raportarea În Tableau



Screenshot of the Tableau Online interface showing the creation of a new data source from a Custom SQL Query.

The interface includes:

- Connections:** BigQuery (Google BigQuery) selected.
- Billing Project:** music-streaming
- Project:** music-streaming
- Dataset:** star_schema
- Table:** dim_account, dim_date, dim_song, fact_streams, New Custom SQL, New Union, Use Legacy SQL.

The main workspace shows a relationship between **dim_song** and **fact_streams**. A warning icon is present on the relationship line.

A modal window titled "Relationship Calculation" displays the query: **STR([Song Id])**. It shows a warning message: "The calculation is valid." with buttons for **Apply** and **OK**.

At the bottom, a note states: "How do relationships differ from joins? [Learn more](#)". It shows the configuration for the relationship: **dim_song** — Operator — **fact_streams**, with fields **# Song Id** and **Abc Song Id (Fact Sti**. A warning message indicates a type mismatch: "⚠ Type mismatch between **# Song Id** and **Abc Song Id**". There is also a link to "Add more fields".

Raportarea În Tableau



Screenshot of the Tableau Online interface showing the creation of a new data source from a Custom SQL Query+ (star_schema).

The interface includes:

- Connections:** BigQuery (Google BigQuery) selected.
- Billing Project:** music-streaming
- Project:** music-streaming
- Dataset:** star_schema
- Table:** dim_account, dim_date, dim_song, fact_streams, New Custom SQL, New Union, Use Legacy SQL.

The main workspace displays a star schema diagram with tables: dim_song, dim_account, and fact_streams. A context menu is open over the fact_streams table, showing options: Open..., Rename, Convert to Custom SQL, Remove, Move To, fact_streams, and Convert to Union... .

A modal window for the dim_account table shows:

- Name:** dim_account
- Fields:** Data preview unavailable.

Type	Field Name	Physical T...	Rem...
#	Accout Id	dim_account	accou...
Abc	Full Name	dim_account	full_na...
...		dim_account	email

Raportarea în Tableau



Screenshot of the Tableau Online interface showing the process of publishing a data source.

The main window shows the "New Data Source" interface for a "music-streaming-ratings" project. The "Data" tab is selected, displaying tables like "dim_account" and "dim_date". A "Scratchpad" tab is also visible at the bottom.

A "Publish Data Source" dialog box is open in the foreground:

- Name:** Song Ratings + Streams + Countries
- Project:** music-streaming-project (selected under default)
- Drop field here:** An empty area for dragging fields.
- Embed credentials:** An unchecked checkbox.
- Publish** and **Cancel** buttons at the bottom.

Raportarea În Tableau



← streaming-lens / Ask Data

Data !

Search

Tables

- dim_account
 - # Account Id
 - Address.Street Na...
 - # Address.Street Nu...
- country, address.c...
 - Address.Country
 - Address.City
 - Date Of Birth
 - Email Address
 - Full Name
 - Gender
- dim_date
 - Date
 - # Date Id
 - Datetime
 - Month End Date
 - Month Start Date
 - Quarter End Date
 - Quarter Start Date
 - Week End Date
 - Week Start Date
- dim_song
 - # Album Id
 - # Band Id
 - Comment
 - Lyrics
 - # Song Id

count of dim_account by Address.Country as a map

No filters

Search to add fields or filters to the visualisation

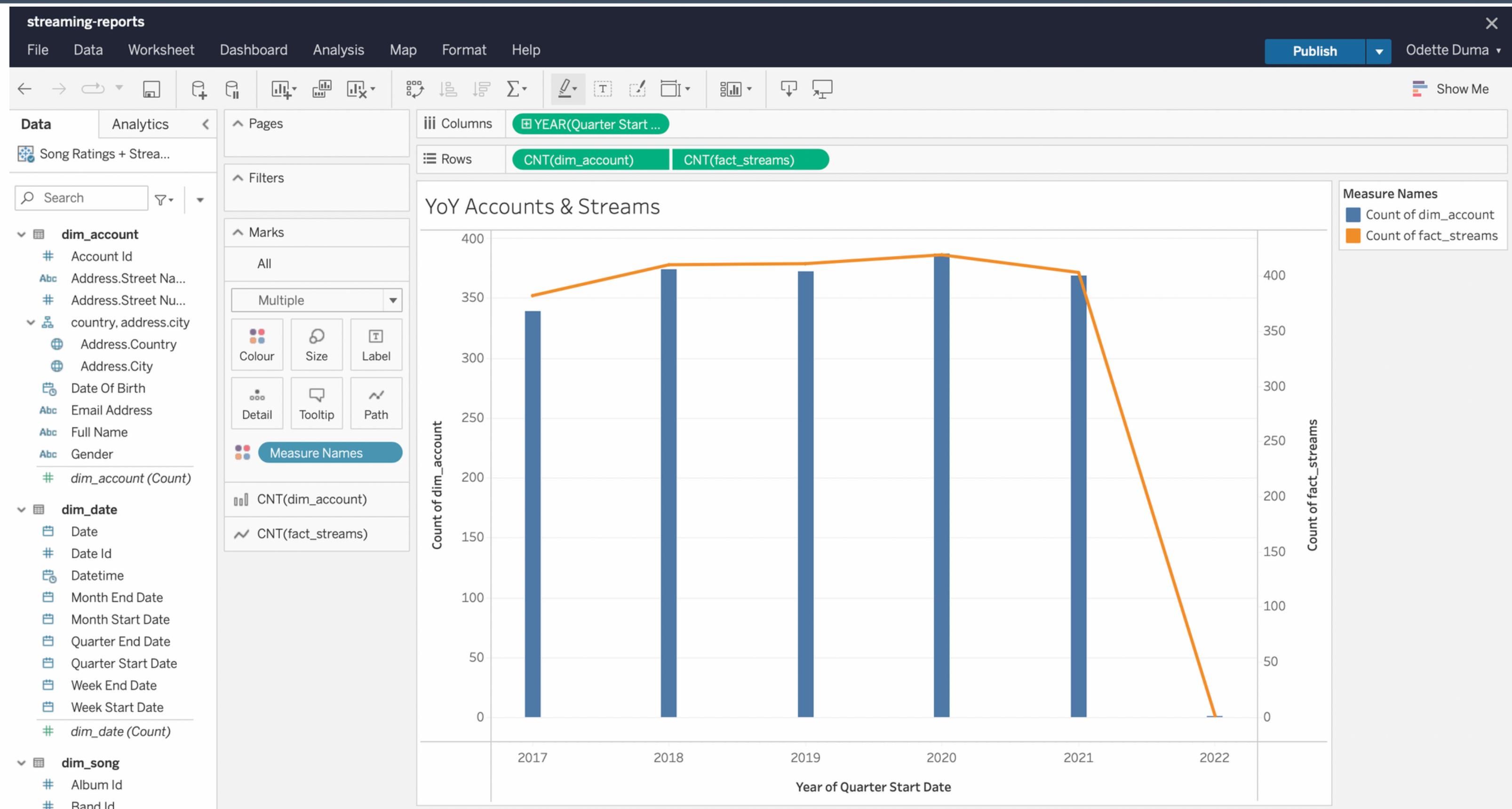
Map

Count of dim_account

1 18

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Raportarea În Tableau



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