Module 12

# More Visualization with Google Data Studio

*In this module we will:*

- Create Case Statements and Calculated Fields
- Avoid Performance Pitfalls with Cache considerations
- Share Dashboards and Discuss Data Access considerations



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## Creating **Case Statements** and Calculated Fields

```
CASE
    WHEN Country IN ("USA","Canada","Mexico") THEN "North America"
    WHEN Country IN ("England","France") THEN "Europe"
    ELSE "Other"
END
```

...can also be created directly in SQL functions upstream ...



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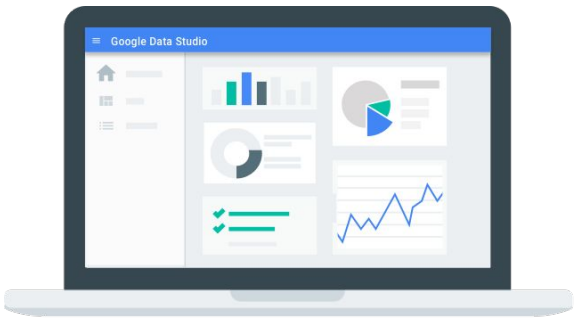
Create calculated fields in Google Data Studio
https://support.google.com/datastudio/answer/7020724?hl=en

Demo:

1. Edit your data source
2. Click + to create a new calculated field
3. Enter a name for the new field
4. In the formula field, enter the CASE statement.

## Avoiding Visualization **Performance and Cache Pitfalls**




- There are 2 parts to Data Studio cache: the query cache, and the prefetch cache.
- When all the charts in the report are being **served from the cache**, a **lightning bolt** icon appears in the bottom right corner
- Break both caches in Edit mode by using **Refresh Cache**
- You can (and should) **turn off prefetch cache** if your data **changes frequently.**

  **File → Report Settings → Enable Cache checkbox**

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Data Studio performance:
https://support.google.com/datastudio/answer/7020039?hl=en

### Query cache

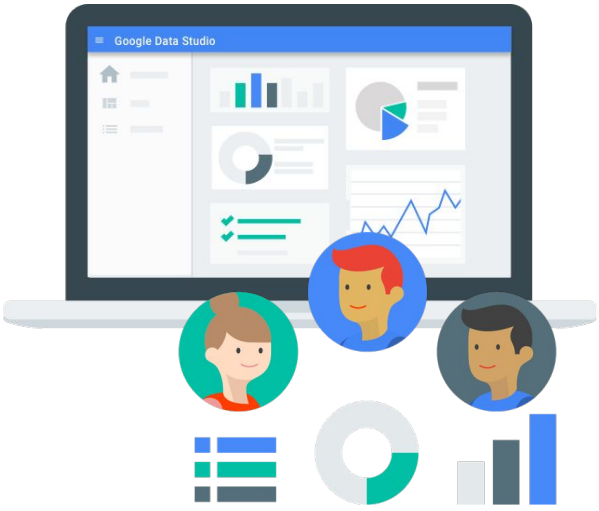
The query cache remembers the queries (requests for data) issued by the components in a report. When a person viewing the report requests the exact same query (i.e., the same dimensions, metrics, filter conditions, and date range) as a previously received query, then the data is served from the cache.

If the response can't be served from the query cache, Data Studio next looks to the prefetch cache.

### Prefetch cache

The prefetch cache (A.K.A. the "Smart cache") predicts the data that a component *could* request by analyzing the dimensions, metrics, filters, and date range properties and controls on the report. Data Studio then stores (prefetches) as much of the data as possible that could be used to answer the predicted queries. When a query can't be answered by the query cache, Data Studio tries to answer it using this prefetched data. If the query can't be answered by the prefetch cache, the data will come from the underlying data set.

## Sharing and Collaborating on Dashboards




- Data Studio uses Google Drive for sharing and storing files.
- When you share a report with view permission, no login is required to view the report. A Google login is required to edit a report.
- **Sharing a report does NOT share direct access to any added data sources.**
- Data sources must be shared separately from reports.



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Sharing Google Data Studio reports:
https://support.google.com/datastudio/answer/6287179?hl=en

Image (Data Studio): https://cloud.google.com/data-studio/