## **DataStudio**

Study the difference between Viewer credentials and Owner credentials if you want to share some dashboards.

* Default caching and prefetch caching.
* How to connect BigQuery with DataStudio and other services like Youtube.
* Basic concepts
* Caching with BQ, including query cache and prefetch cache
* A question came up about metrics and dimensions, so you should know the difference

you must set Owner credentials to use the ‘enable cache’ option in BigQuery. It is also a Google best practice to use the ‘enable cache’ option when the business scenario calls for using prefetch caching.

The **prefetch cache** is only active for data sources that use owner’s credentials to access the underlying data.

The predictive (pre-fetch) cache analyzes the dimensions, metrics, and filter controls contained in the report, and predicts the possible queries. Data Studio then executes those queries in the background and stores the responses in the predictive cache. When a query can’t be answered by the responsive cache, Data Studio tries to answer it using this predicted data. The predictive cache is limited in size, so it’s possible your report can issue queries not already contained in the cache. If the query can’t be answered by the predictive cache, Data Studio requests the data from the underlying data set.  
Limitation: The predictive (pre-fetch) cache is only active for data sources that use the owner’s credentials to access the underlying data.

Data Studio caches data for performance and as the latest data is not shown, the caching can be disabled to fetch the latest data.

Caching in Data Studio: When a component in your report requests data, the responsive cache remembers the response returned by the underlying platform. If a person viewing the report requests the exact same data (for example, the same dimensions and metrics with the same filter conditions and date range) as a previously received query, then the new request is served by the responsive cache. If the request can’t be served by the responsive cache, Data Studio next looks to the predictive cache.

Refer GCP documentation – Data Studio Caching:- <https://support.google.com/datastudio/answer/7020039?hl=en>