Views & Materialized Views

**Question 1**

Create a view  
a. Use the table you created in Assignment 3 - json\_example.households  
b. Write a query that provides the following results

c. Using the query from part 1.b, write code (see the BigQuery DDL for guidance)  
that creates a view called view\_example,saved to your json\_example dataset.  
Note - though you can also create a BigQuery view using the buttons in the  
console. For this assignment, please use code.

Submit your code for questions 1b and 1c. Submit a screenshot of the newly created view.

Your Answer:

1 b.

SELECT  father,mother,

(select count(\*) from unnest(children)) as child\_count

FROM `anusha-345017.Assignment3.households` LIMIT 1000

![Graphical user interface, text, application, email

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1c.

create view `anusha-345017.Assignment3.view\_example`

AS select \*

from `anusha-345017.Assignment3.households`![Graphical user interface, text, application, email

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**Question 2**

Create a materialized view

a. This is pretty much the same workflow as Part 1 of this assignment. We’ll once  
again use the table you created in Assignment 3 - json\_example.households  
b. Using the query from part 1.b, use code (see the BigQuery DDL for guidance), to  
create a view called materialized\_view\_example, saved to your json\_example  
dataset.

Submit your code for question 2 and a screenshot of the materialized view.

Your Answer:

Query:

create materialized view `anusha-345017.Assignment3.materialized\_view\_example`

AS select \*

from `anusha-345017.Assignment3.households`

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**Question 3**

When would you use a view versus a materialized view?

Submit your response to question 3.

Your Answer:

Views is a virtual copy of the table and the result is not stored anywhere in the disk and every time we query it fetches the data from the original table. Views are used when we want to access the data not very frequently and the data in the original table gets updated frequently.

If the data in original table is  dynamic or new data keeps on adding up then creating the view is necessary.  This way all the tables can be read at the same time whereas in materialized view there is no update of data to the source table.

Example of views :ad impressions collected on a daily basis With views we will get latest updated data

**Question 4**

When would you use a materialized view versus a view?

Submit your response to question 4.

Your Answer:

Materialized views are pre computed views wherein the results are periodically cached for increased efficiency and performance. They only read delta changes from base tables to compute the up to date results. This optimizes the query processing.

This way they are faster and only consume fewer resource's unlike views that retrieve same data from original table.

It has the characteristics like zero maintenance, fresh data as materialized views return fresh data. Smart tuning since it process the data on delta changes

Materialized views can actually optimize queries processing time with high computation cost and small dataset results.