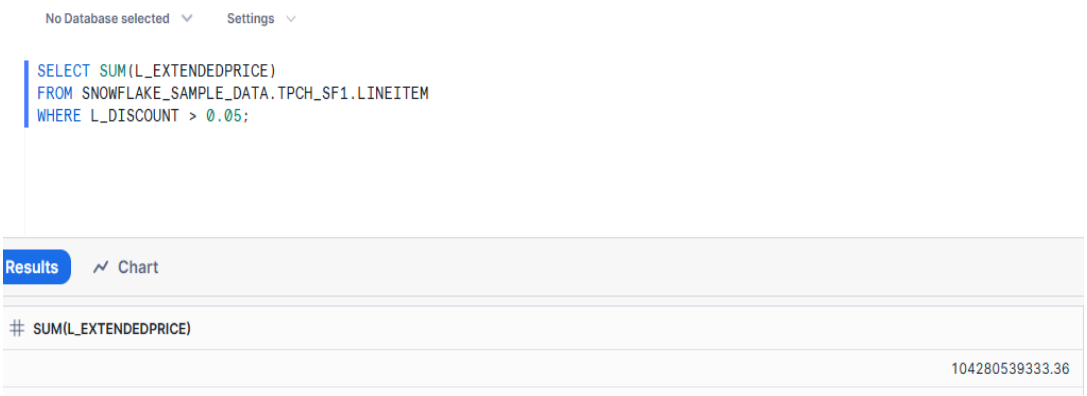
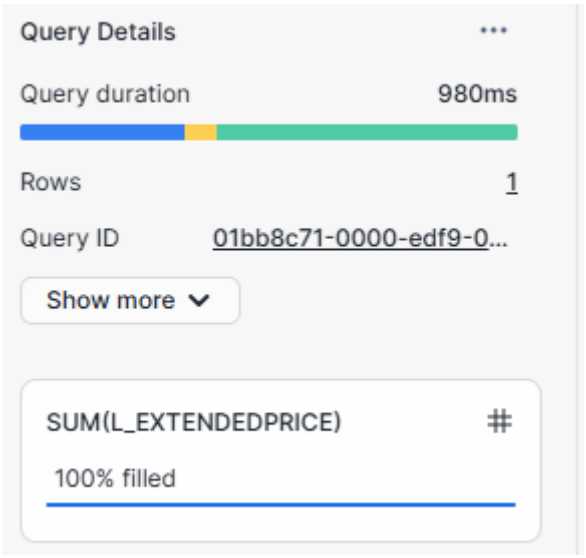
Assignment –4

- Run a Query:

  SELECT SUM(L_EXTENDEDPRICE)
  FROM SNOWFLAKE_SAMPLE_DATA.TPCH_SF1.LINEITEM
  WHERE L_DISCOUNT > 0.05;

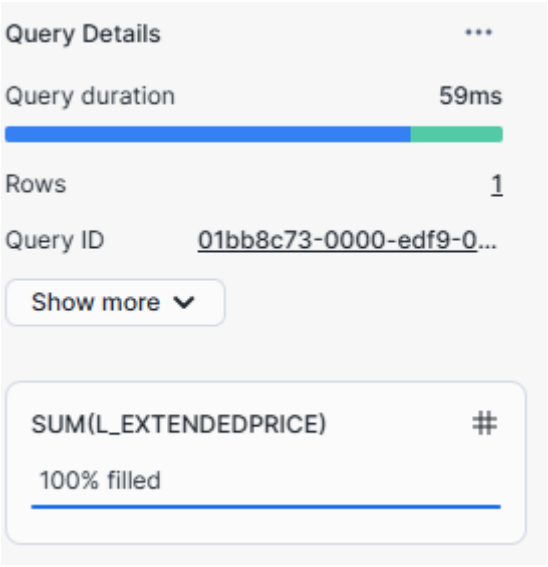




- Re-Run the Same Query:

  Execute the query again immediately after the first run.

  Snowflake uses its Result Cache to return results faster. Note the reduced query execution time.



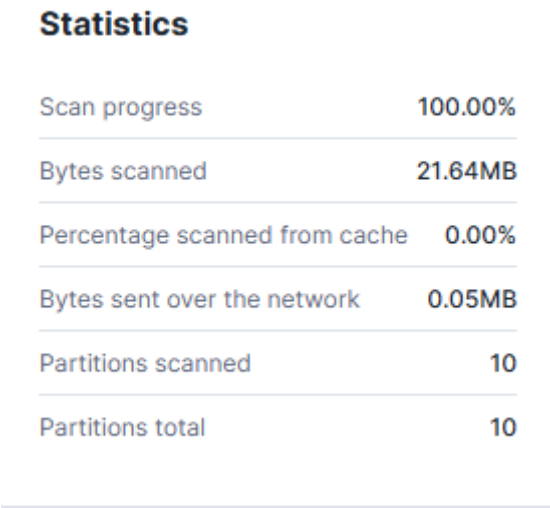
- Monitor Cache Usage:

  Go to the History tab in the Web UI.

  Locate the query and check the Bytes Scanned column:

  If the value is 0, the query was served from the Result Cache.

  Otherwise, it was processed from the database.



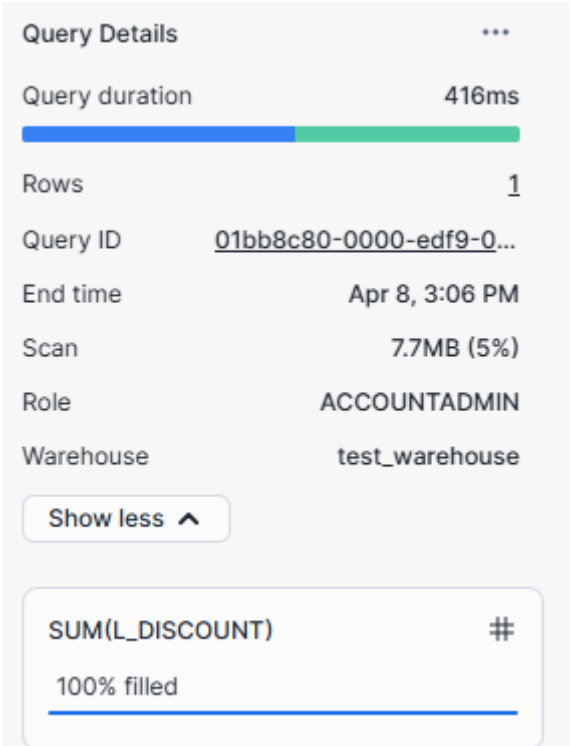
So, for the first time when we run the query almost **21.64MB** bytes are scanned. While, its **0** for the second one as result cache is used.

- Test the Metadata Cache:

  Create a new query that reads from the same table but accesses different columns.

  Snowflake leverages metadata cache to optimize query parsing and planning.

```
SELECT SUM(L_DISCOUNT)
FROM SNOWFLAKE_SAMPLE_DATA.TPCH_SF1.LINEITEM
WHERE L_QUANTITY > 5;
```



Statistics

Scan progress	100.00%
Bytes scanned	7.72MB
Percentage scanned from cache	60.33%
Bytes sent over the network	0.07MB
Partitions scanned	10
Partitions total	10