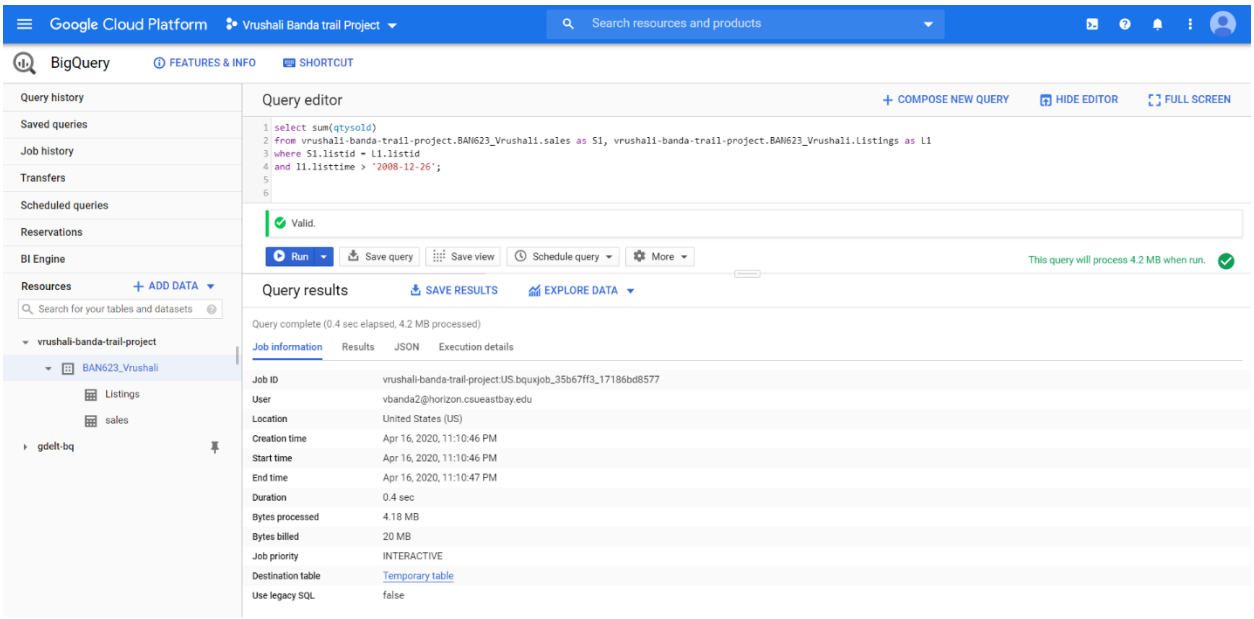
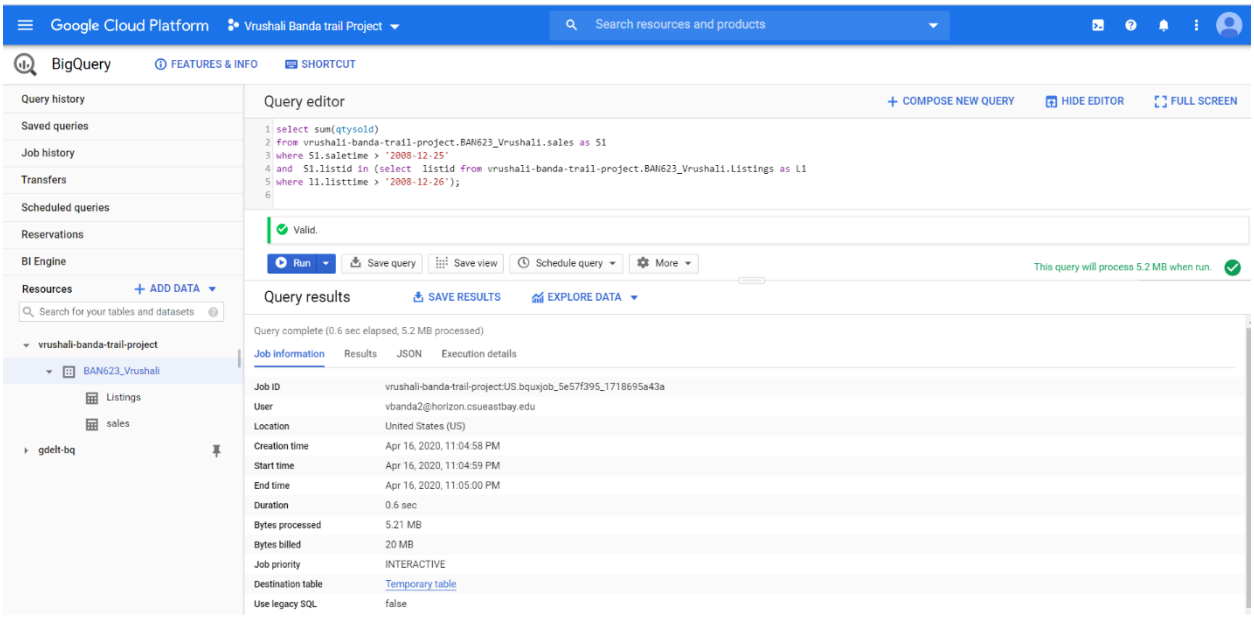
BigQuery Assignment

1. **Screenshot of query validator costs for each of the two queries.**

Query 1



Query 2



2. **A brief discussion comparing the two queries in terms of their expected output and query costs in terms of data processed (GB or TB).**

Query 1: This query calculates the total number of quantities sold from the Sales and Listings table.

We have the join on the "listid" from both the tables. Also, the query says that Listtime should be later than '2008-12-26'

Query 1 Output: 46

Query 2: This query calculates the total number of quantities sold from the Sales table where the Saletime is later than "2008-12-25" and the listid is later than '2008-12-26'

Query 2 Output: 46

- Outputs of both the queries are the same.
- Cost of Query 1 is 4.2 MB
- Cost of Query 2 is 5.2 MB
- Cost of Query 1 is less as it selects the total number of quantities sold initially where the Listid is the same from two tables and then filters the record. We run the filter on less data.
- In the query 2 , we run the filter twice on both the tables. We run filter on a lot more data than the first one so the cost is more.
- Query 1 will cost less than Query 2.

If your query processes less than 1 TB, the estimate is $0 because BigQuery provides 1 TB of on- demand query processing free per month.

In normal scenario: (On Demand Pricing)

Query 1		Units
Bytes Processed	4.2	MB
Bytes Billed	20	MB
Pricing	$5	
Total Query Price	$0.001	
Table Size	8.53	MB
Per GB Storage Cost	$0.02	
Storage Pricing	$0.00017	
Total Price	**$0.001170**	

Query 2		Units
Bytes Processed	5.2	MB
Bytes Billed	20	MB
Pricing	$5	
Total Query Price	$0.001	
Table Size	10.24	MB
Per GB Storage Cost	$0.02	
Storage Pricing	$0.000205	
Total Price	**$0.001205**	