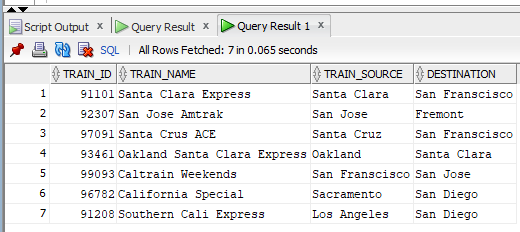
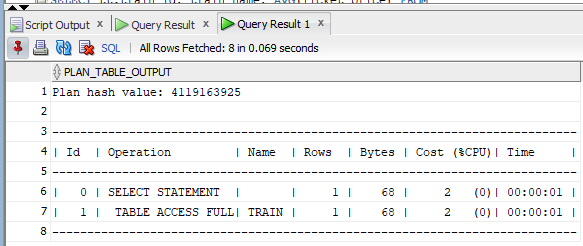
**1. Display Train Table Content.**

**Select \* from train;**

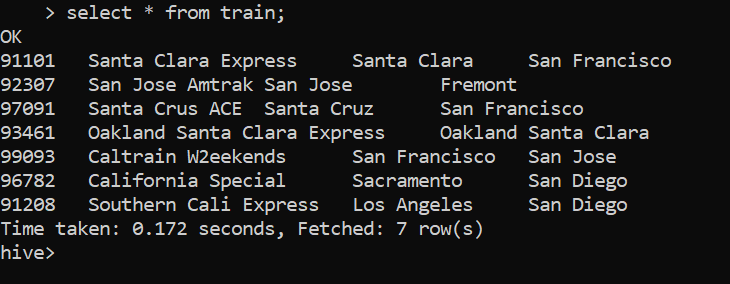
In ORACLE:



ORACLE EXPLAIN PLAN:



In HIVE:



**2. Display all passenger details( Sorted by passenger name)**

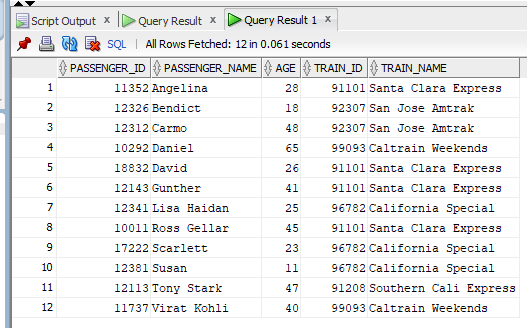
**select DISTINCT(passenger\_id),passenger\_name,age,t.train\_id,t.train\_name**

**From passenger p, train t**

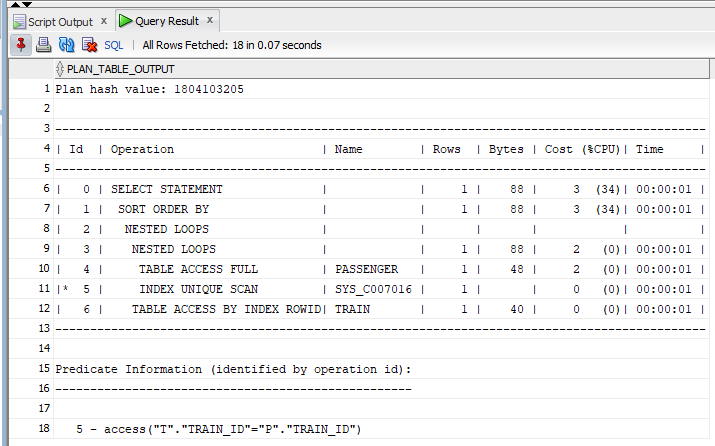
**where t.train\_id=p.train\_id**

**order by passenger\_name;**

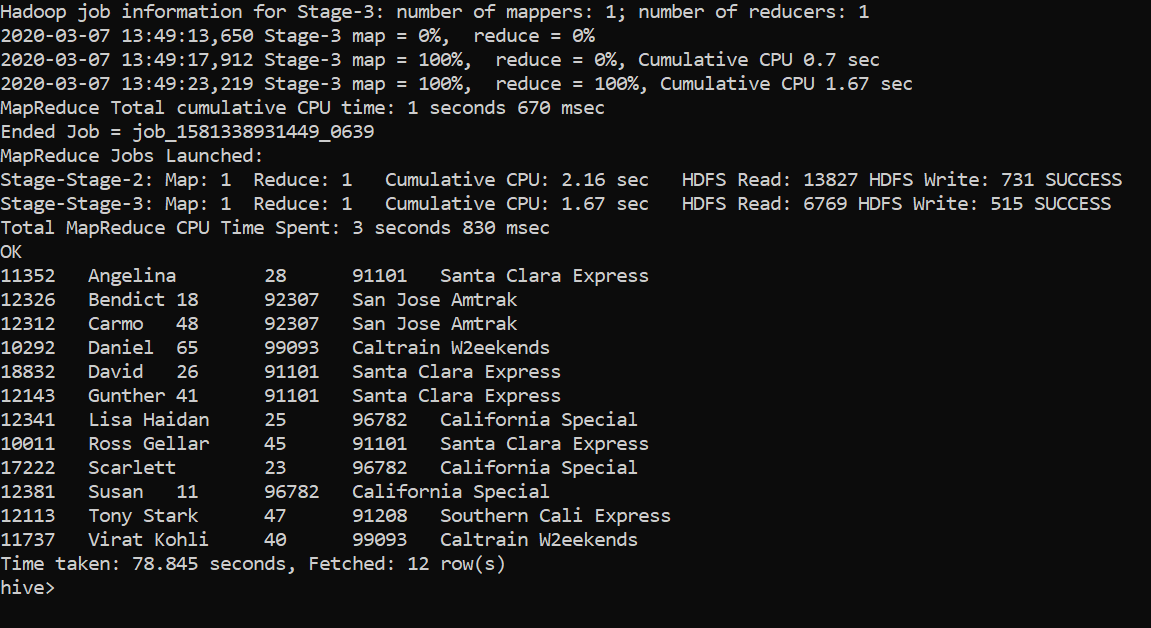
In ORACLE:



ORACLE EXPLAIN TOOL:



In HIVE:



**3. Display Trains passing through San Francisco(Nested Queries)**

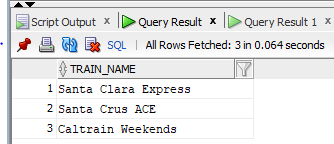
**SELECT train\_name FROM train**

**WHERE train\_id IN**

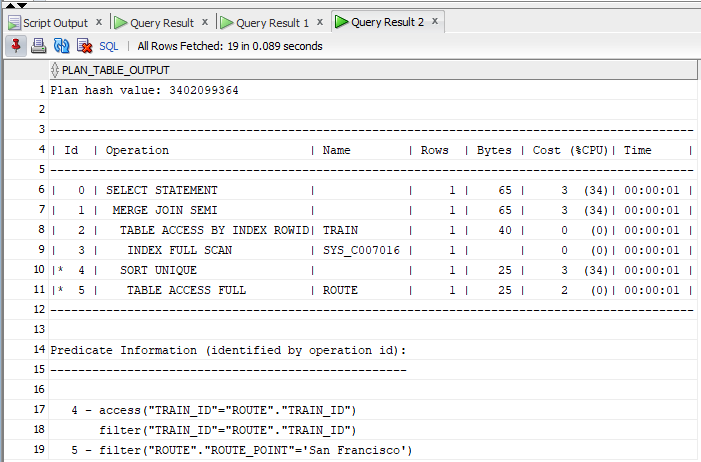
**(SELECT route.train\_id FROM route**

**WHERE route.route\_point="San Francisco");**

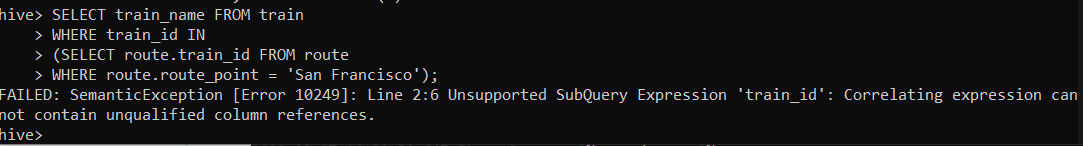
In ORACLE:

****

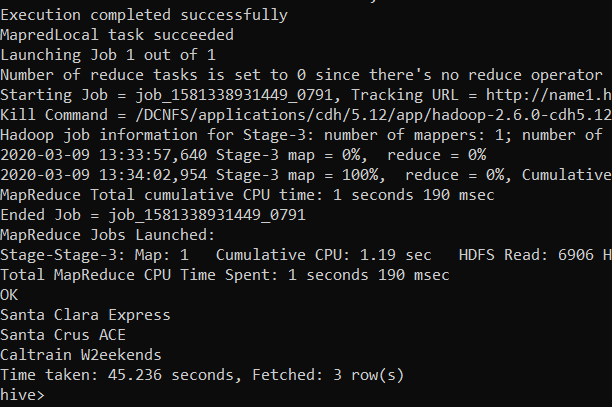
ORACLE EXPLAIN PLAN:

****

In HIVE:



Explicitly mention the column which we are referring to.



**4. Top 4 trains having maximum booked reservations**

**Oracle:**

**SELECT Train\_name, booked\_count FROM Train t**

**INNER JOIN TrainStatus ts ON**

**t.train\_id = ts.train\_id**

**ORDER BY Booked\_count DESC) tr**

**WHERE ROWNUM < 5 ;**

**HIVE:**

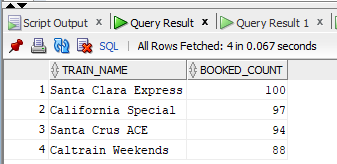
**SELECT Train\_name, booked\_count FROM Train t**

**INNER JOIN TrainStatus ts ON**

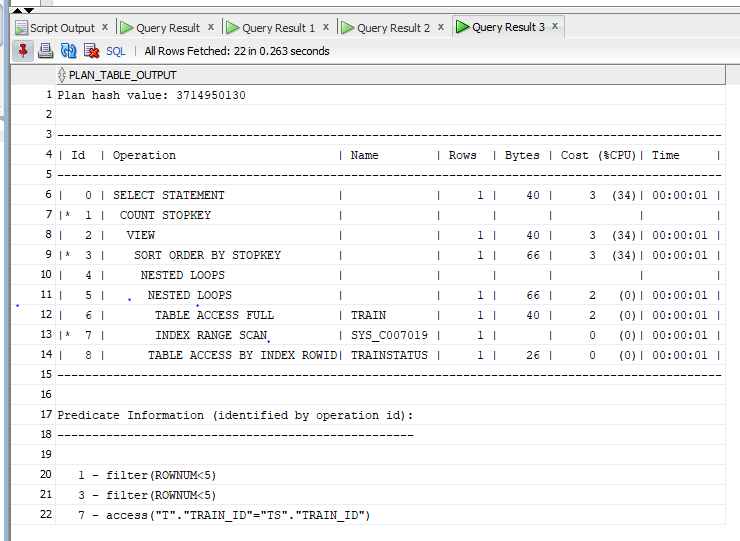
**t.train\_id = ts.train\_id**

**ORDER BY Booked\_count DESC limit 4;**

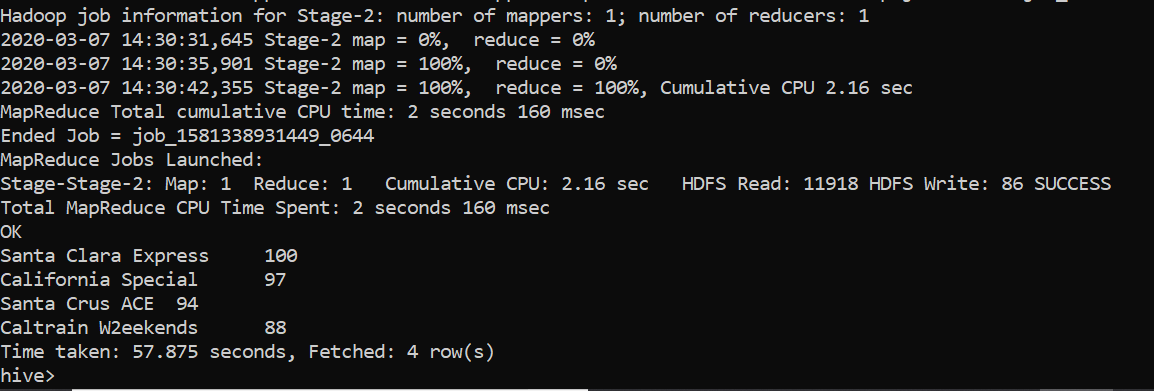
In ORACLE:

****

ORACLE EXPLAIN TOOL:

****

In HIVE:



**5. Count number of Train Stops for each train**

**SELECT train\_id train\_name, count(\*) Stops**

**FROM train T**

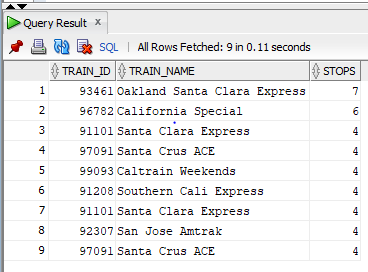
**JOIN**

**route r**

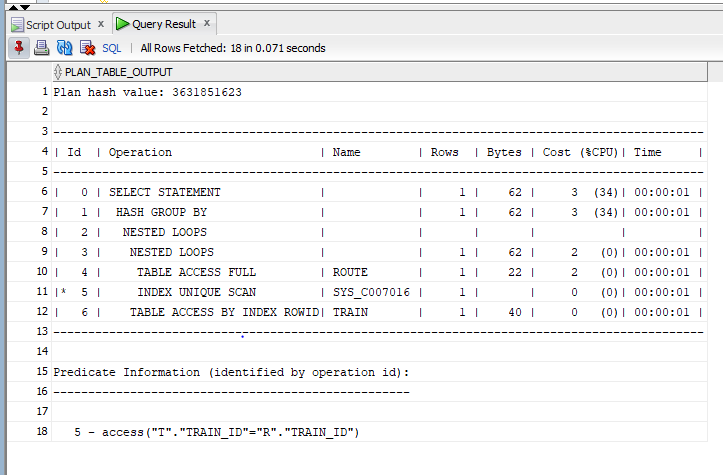
**ON r.train\_id = t.train\_id**

**GROUP BY t.train\_id, t.train\_name, Date(arrival\_time);**

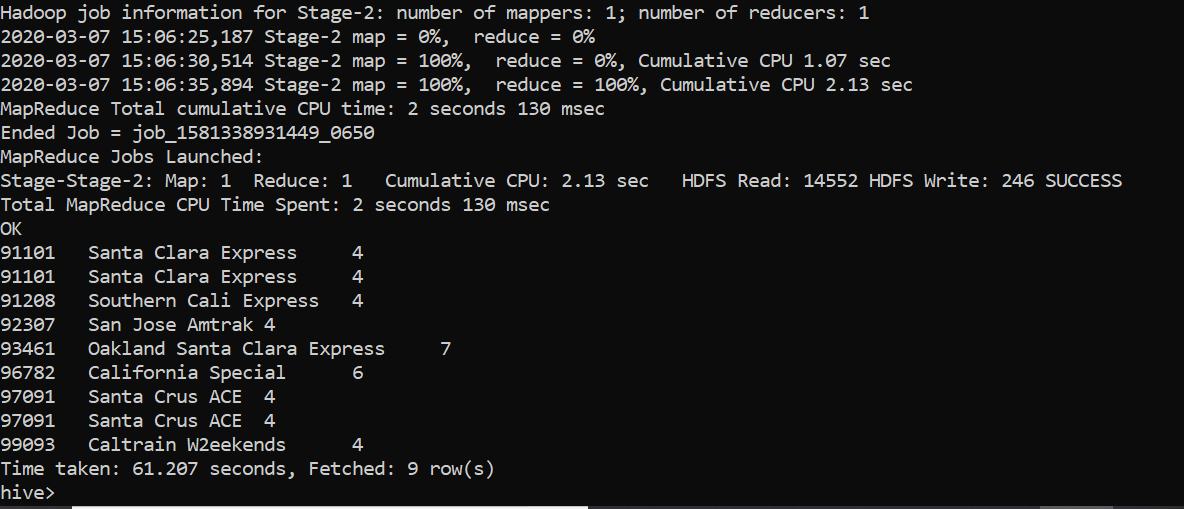
IN ORACLE:

****

ORACLE EXPLAIN TOOL:



In HIVE:



**6. Calculate male to female ratio**

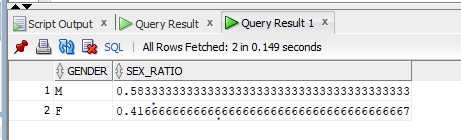
**with q1 as ( SELECT COUNT(\*) AS total\_count FROM Passenger),**

**q2 as (SELECT gender,COUNT(\*) as gender\_count FROM Passenger GROUP BY**

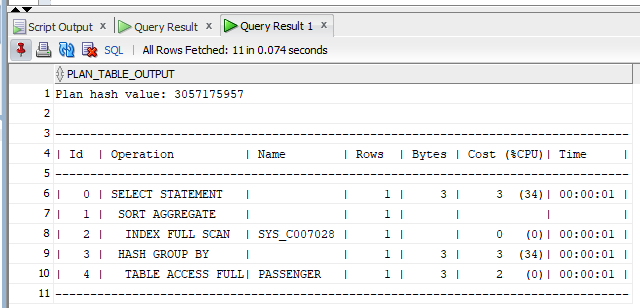
**gender)**

**select gender,gender\_count/total\_count as Sex\_Ratio from q1,q2;**

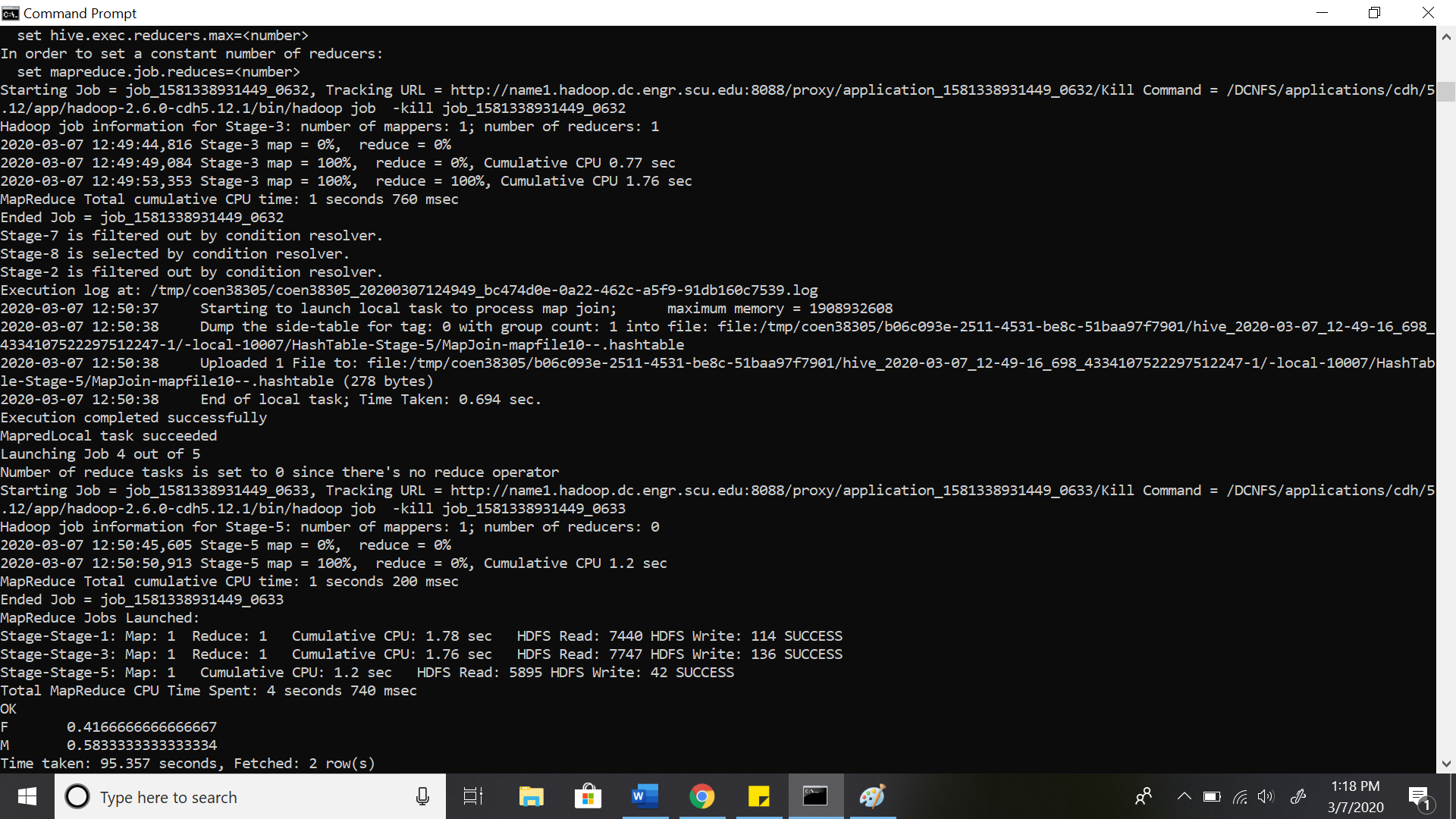
In ORACLE:



ORACLE EXPLAIN TOOL:



In HIVE:



**7. Display Trains scheduled between 12AM to 12PM**

**In ORACLE:**

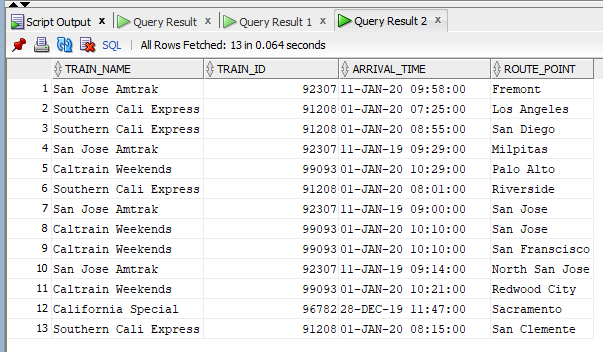
**SELECT DISTINCT train\_name, r.\* FROM route r**

**LEFT JOIN Train t**

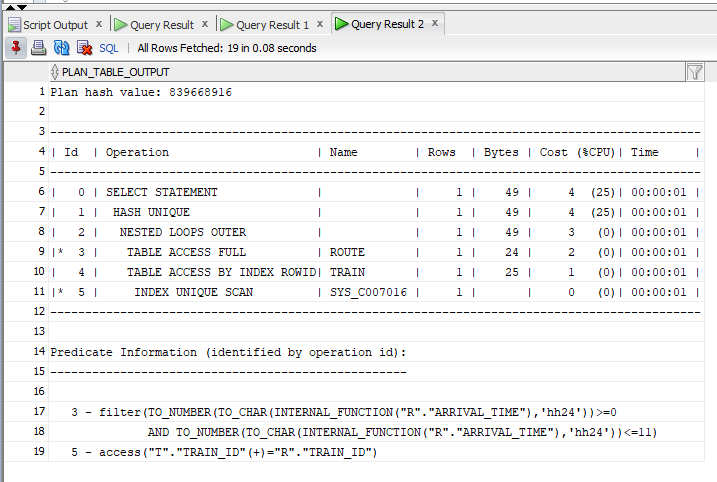
**ON t.train\_id = r.train\_id**

**Where TO\_Char(Arrival\_time,'hh24')**

**between 0 AND 11;**



ORACLE EXPLAIN PLAN:

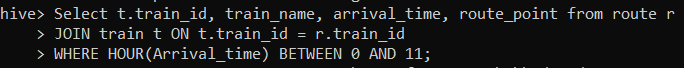


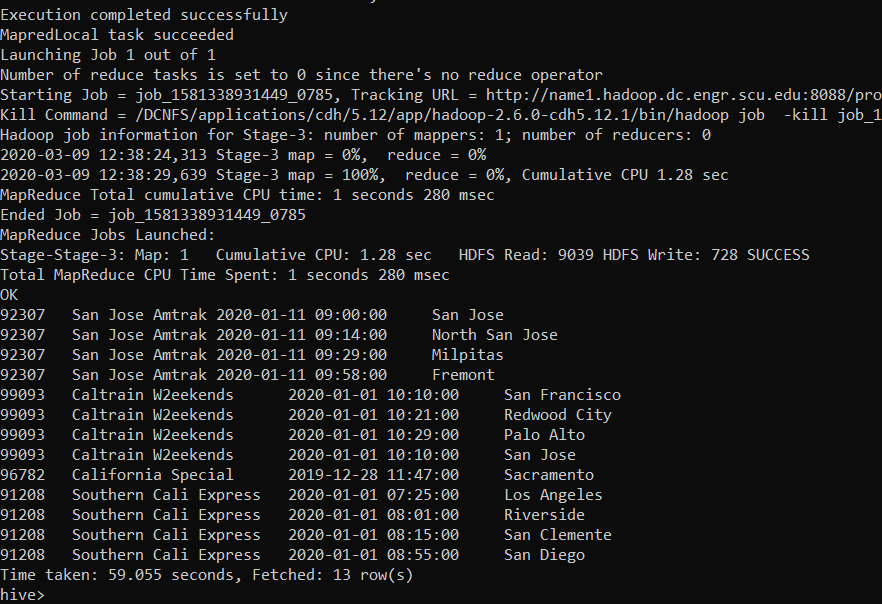
**In HIVE:**

**Select t.train\_id, train\_name, arrival\_time, route\_point from route r**

**join train t on t.train\_id = r.train\_id**

**where HOUR(arrival\_time) between 0 AND 11**





8. 3 Way Join

**9. Display Passenger and train details combined where ticket price is equal to 35 (4 Way Join)**

**SELECT DISTINCT(Passenger\_name), Train\_name, Ticket\_price, ti.Ticket\_id, Ticket\_status, Status\_date FROM Passenger p**

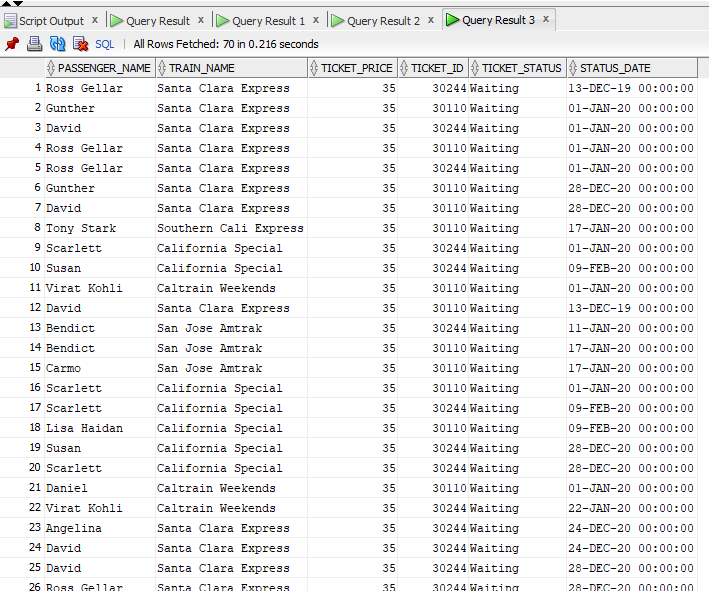
**INNER JOIN Train t ON t.train\_id = p.train\_id**

**INNER JOIN Ticket ti ON p.ticket\_id = p.ticket\_id**

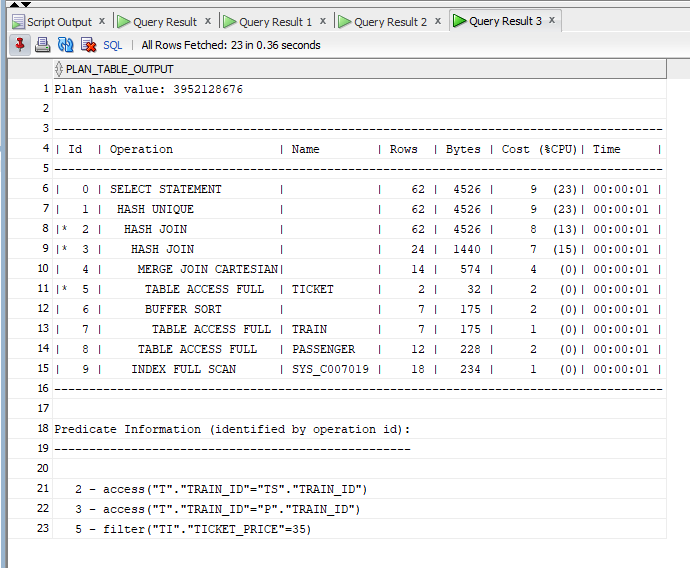
**INNER JOIN TrainStatus ts ON t.train\_id = ts.train\_id**

**WHERE Ticket\_price = 35**

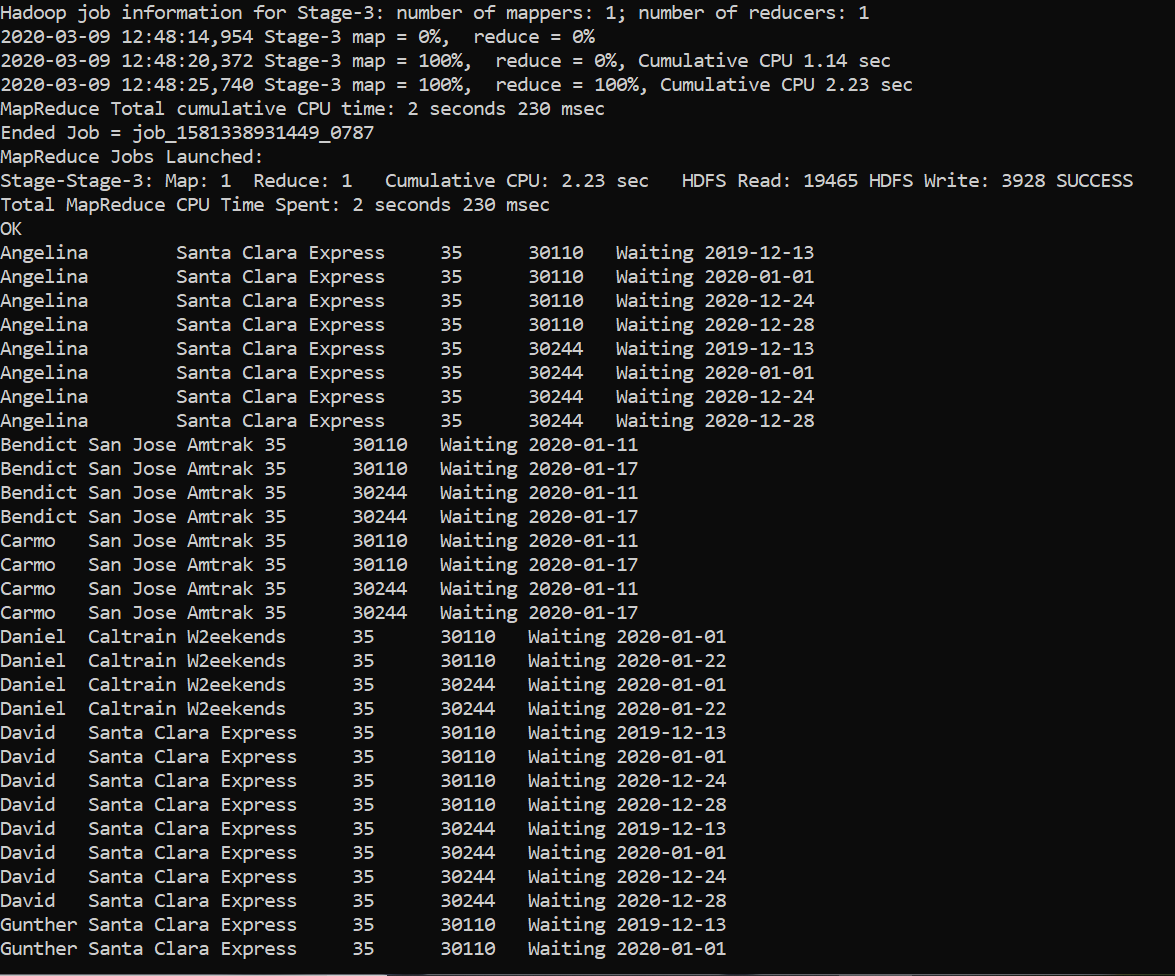
In ORACLE:

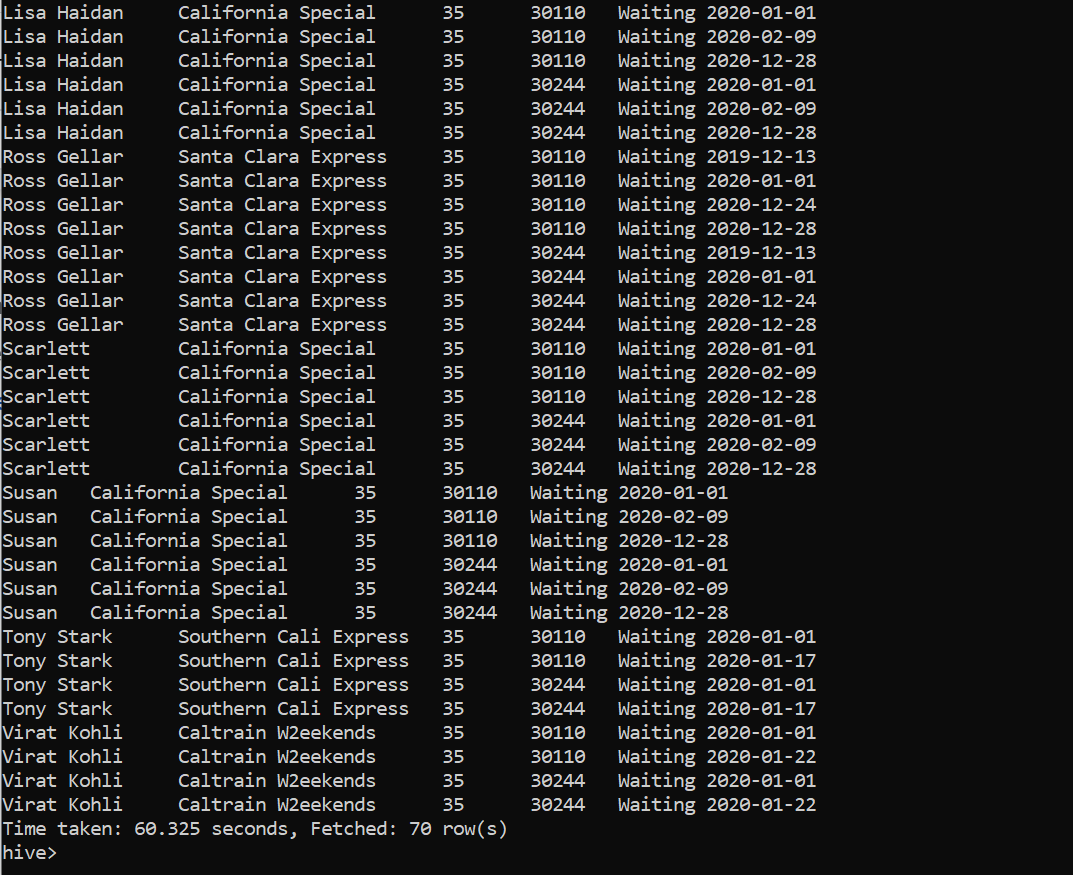


ORACLE EXPLAIN PLAN:



In HIVE:





**10. Average ticket price of Each train (Select query in From clause)**

**SELECT tt.train\_id, train\_name, AVG(Ticket\_price) FROM**

**(SELECT t.train\_id, train\_name, ticket\_id FROM train t**

**LEFT JOIN passenger p ON t.train\_id = p.train\_id)**

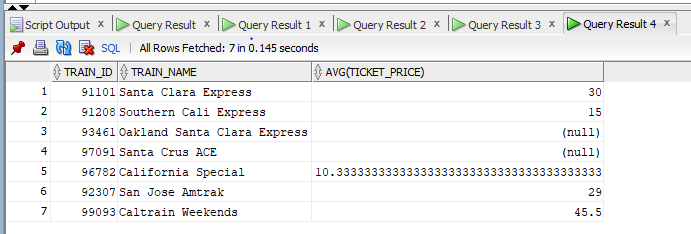
**tt**

**LEFT JOIN ticket ti ON**

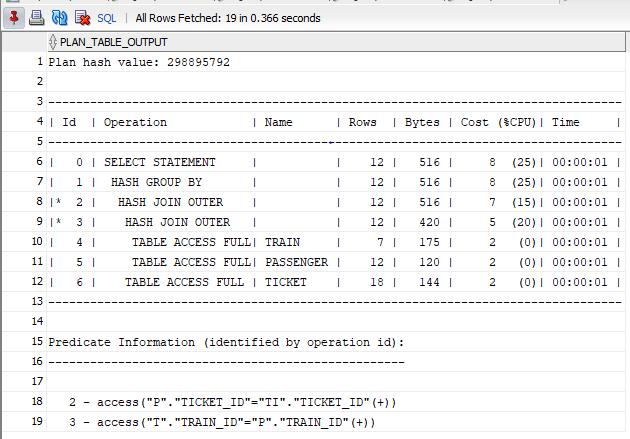
**tt.ticket\_id = ti.ticket\_id**

**GROUP BY tt.train\_id,train\_name;**

In ORACLE:



ORACLE EXPLAIN PLAN:



In HIVE:

