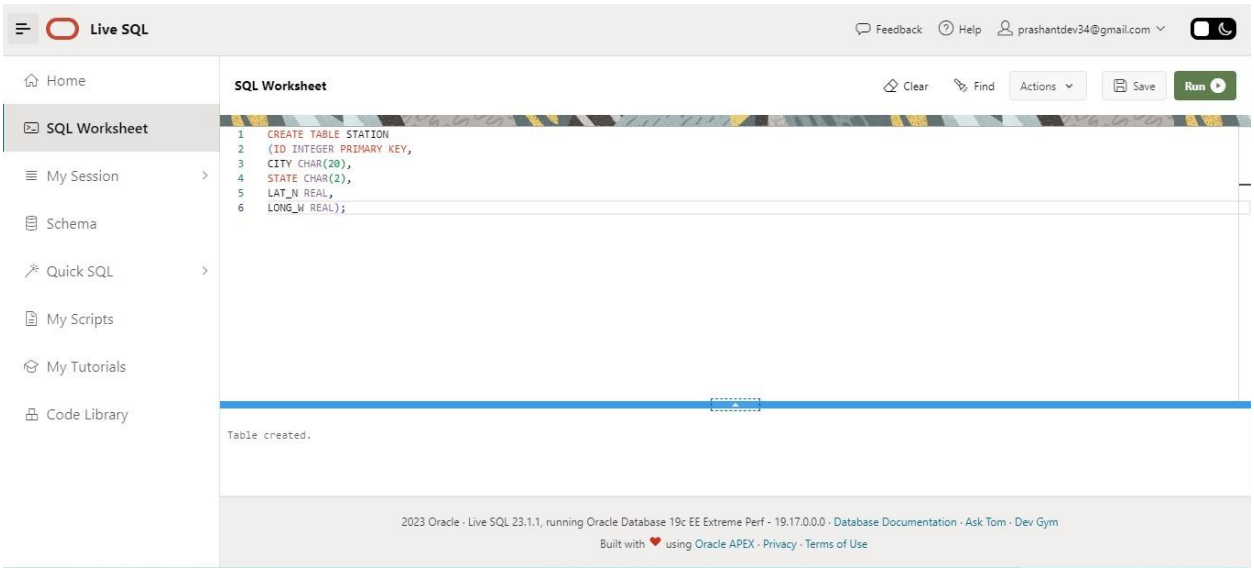
1. Create a table “Station” to store information about weather observation stations:

ID	Number	Primary key
CITY	CHAR(20)	
STATE	CHAR(2)	
LAT_N	Number	
LONG_W	Number	

ANS 1

```
CREATE TABLE STATION
(ID INTEGER PRIMARY KEY,
CITY CHAR(20),
STATE CHAR(2),
LAT_N REAL,
LONG_W REAL);
```

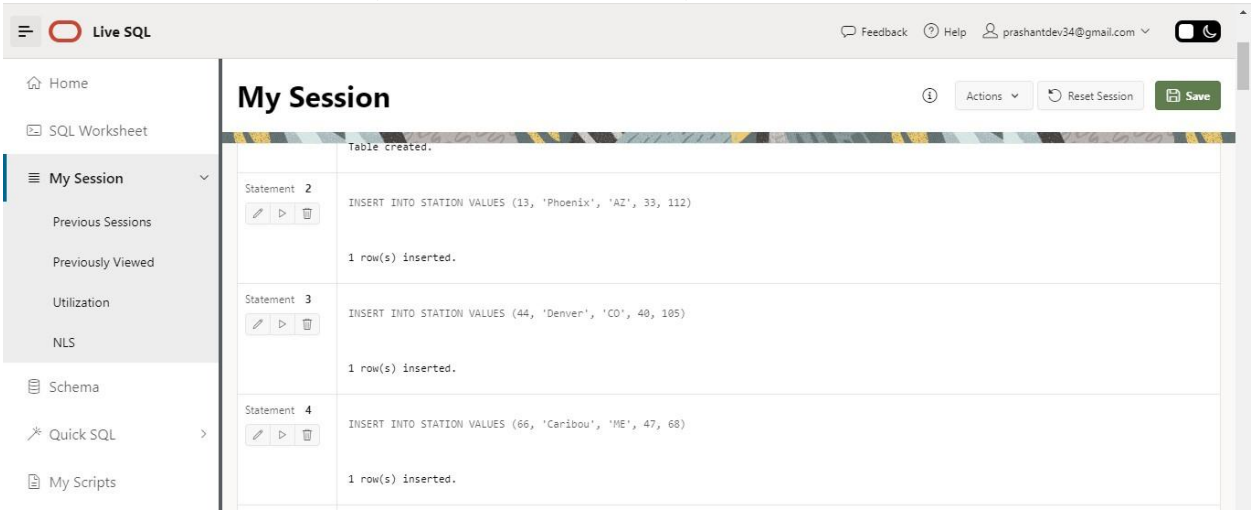


2. Insert the following records into the table:

ID	CITY	STATE	LAT_N	LONG_W
13	PHOENIX	AZ	33	112
44	DENVER	CO	40	105
66	CARIBOU	ME	47	68

ANS 2

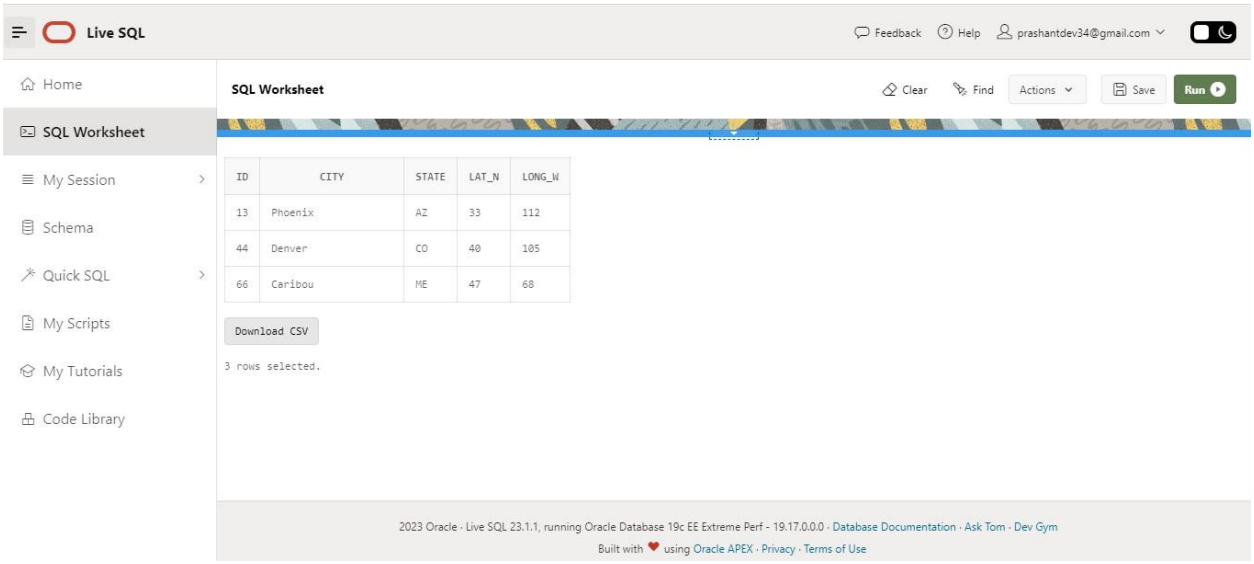
```
INSERT INTO STATION VALUES (13, 'Phoenix', 'AZ', 33, 112);
INSERT INTO STATION VALUES (44, 'Denver', 'CO', 40, 105);
INSERT INTO STATION VALUES (66, 'Caribou', 'ME', 47, 68);
```



3. Execute a query to look at table STATION in undefined order.

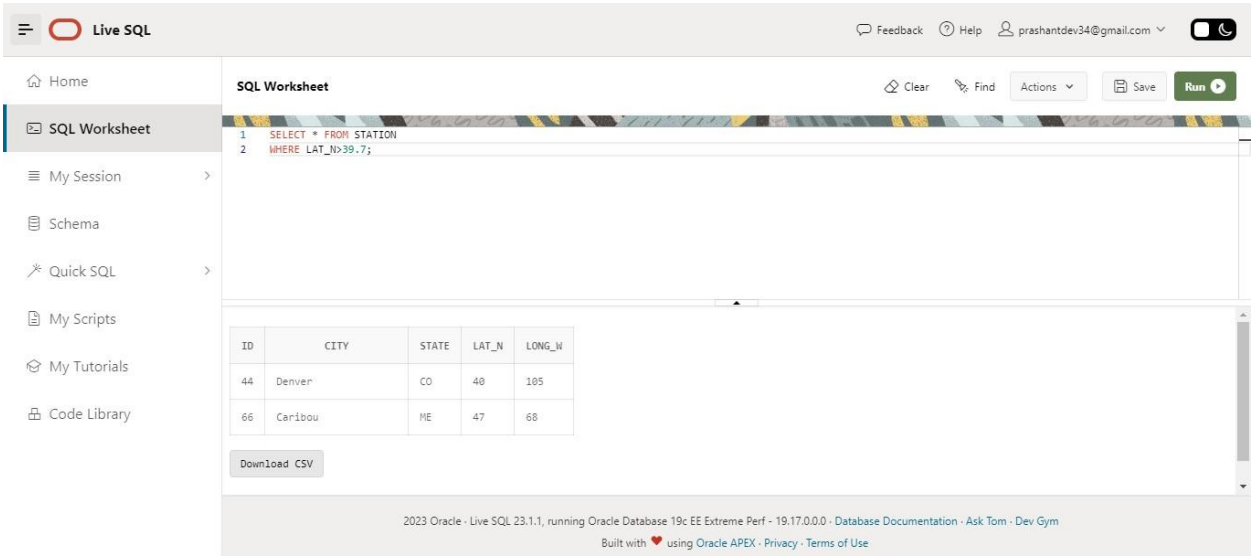
ANS 3

SELECT * FROM STATION;



4. Execute a query to select Northern stations (Northern latitude >39.7).

ANS 4

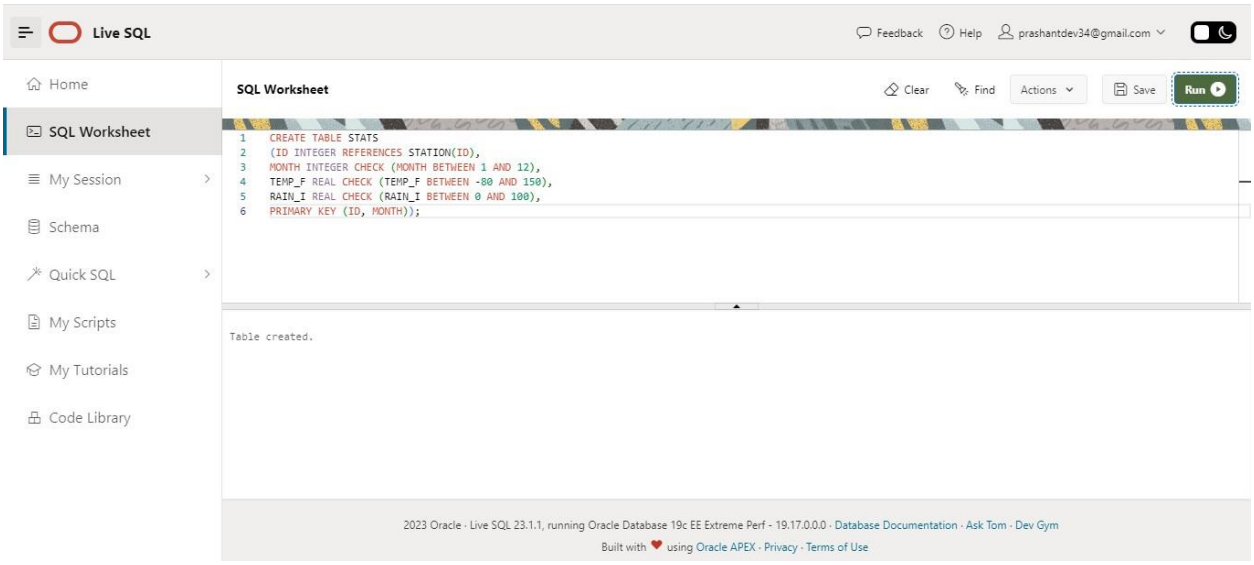


5. Create another table, ‘STATS’, to store normalized temperature and precipitation data:

Column	Data type	Remark
ID	Number	must match some STATION table ID(so name & location will be known).
MONTH	Number	Range between 1 and 12
TEMP_F	Number	in Fahrenheit degrees,Range between -80 and 150
RAIN_I	Number	in inches, Range between 0 and 100

There will be no Duplicate ID and MONTH combination.

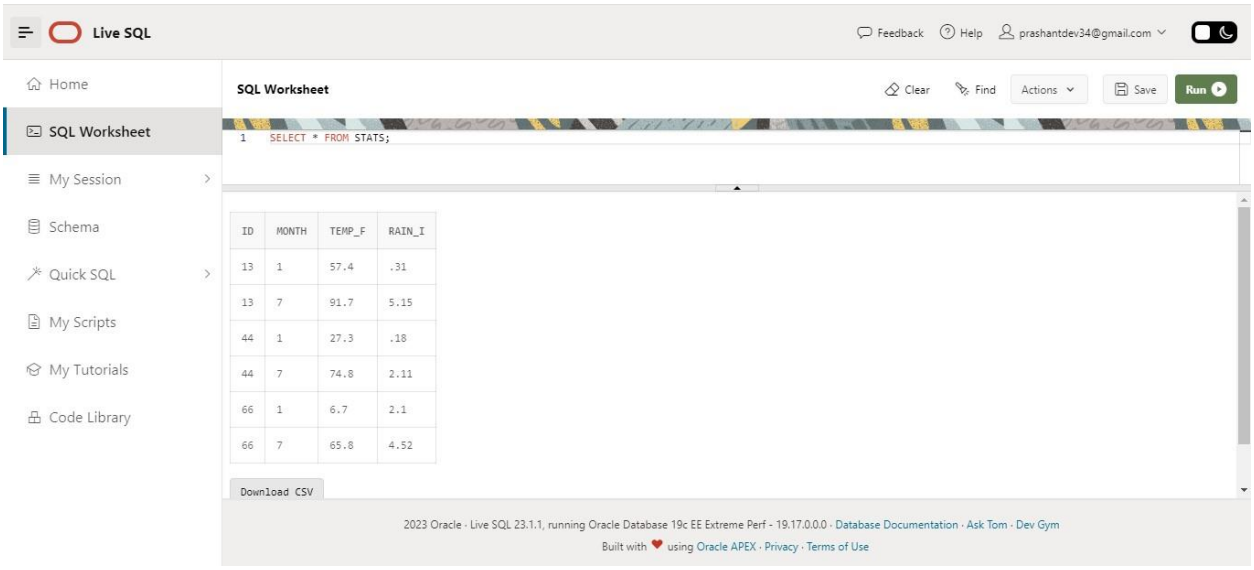
ANS 5



6. Populate the table STATS with some statistics for January and July:

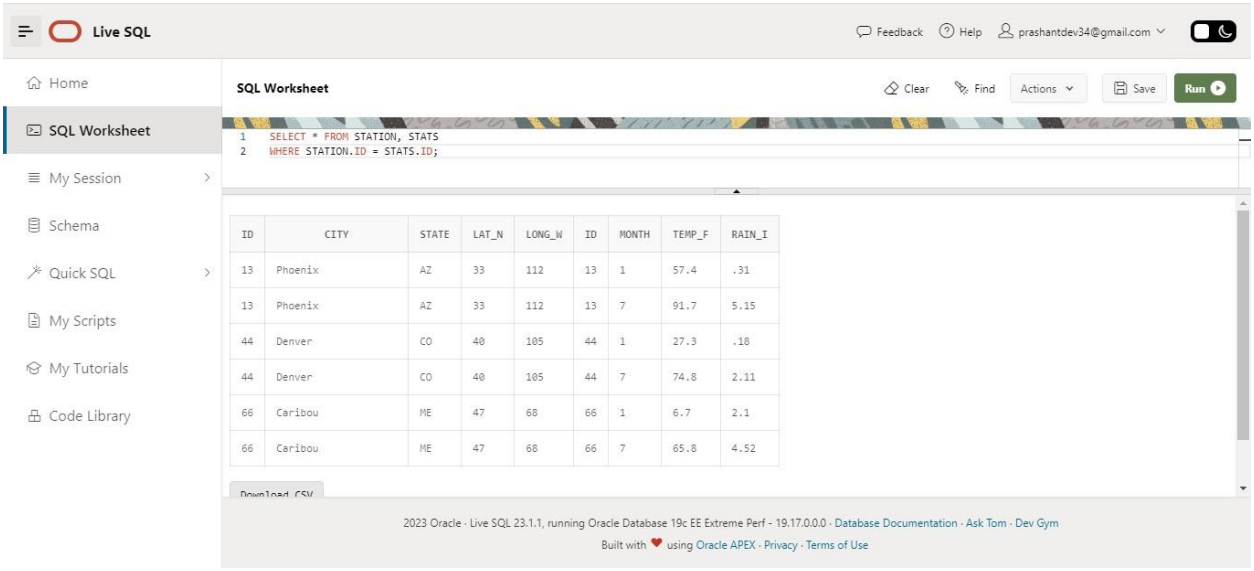
ID	MONTH	TEMP_F	RAIN_I
13	1	57.4	.31
13	7	91.7	5.15
44	1	27.3	.18
44	7	74.8	2.11
66	1	6.7	2.1
66	7	65.8	4.52

ANS 6



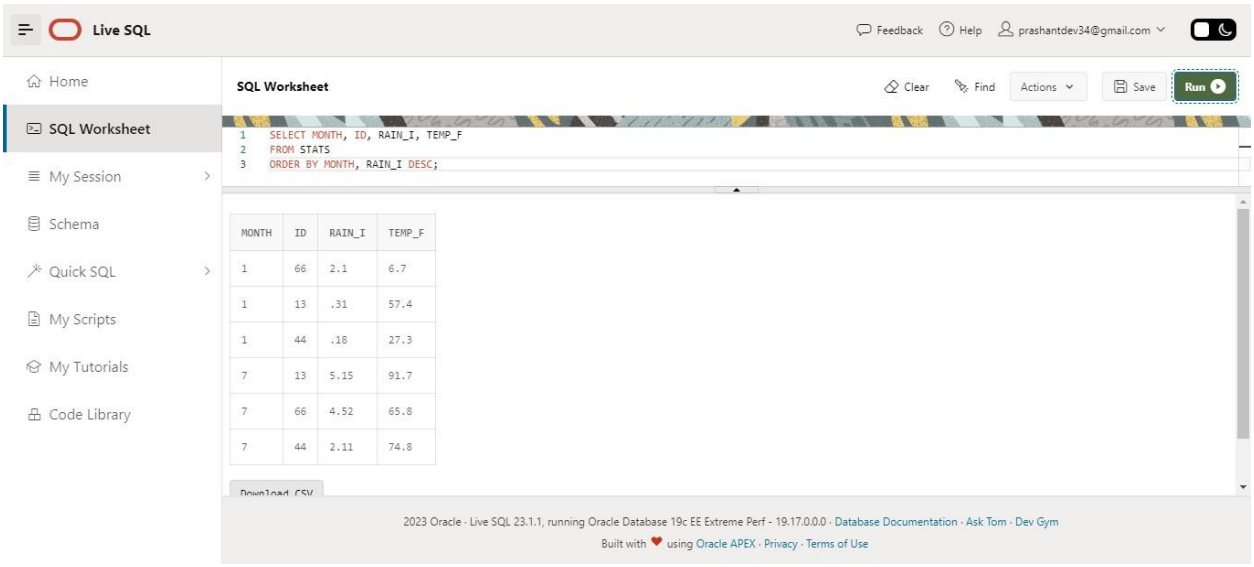
7. Execute a query to display temperature stats (from STATS table) for each city (from Station table).

ANS 7



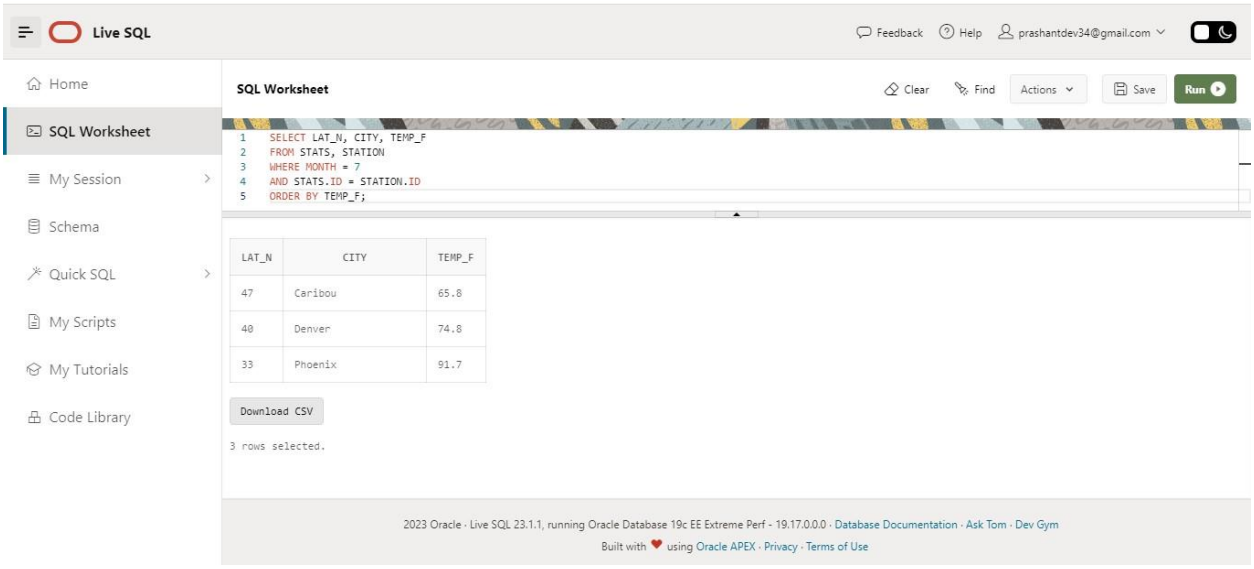
8. Execute a query to look at the table STATS, ordered by month and greatest rainfall, with columns rearranged. It should also show the corresponding cities.

ANS 8



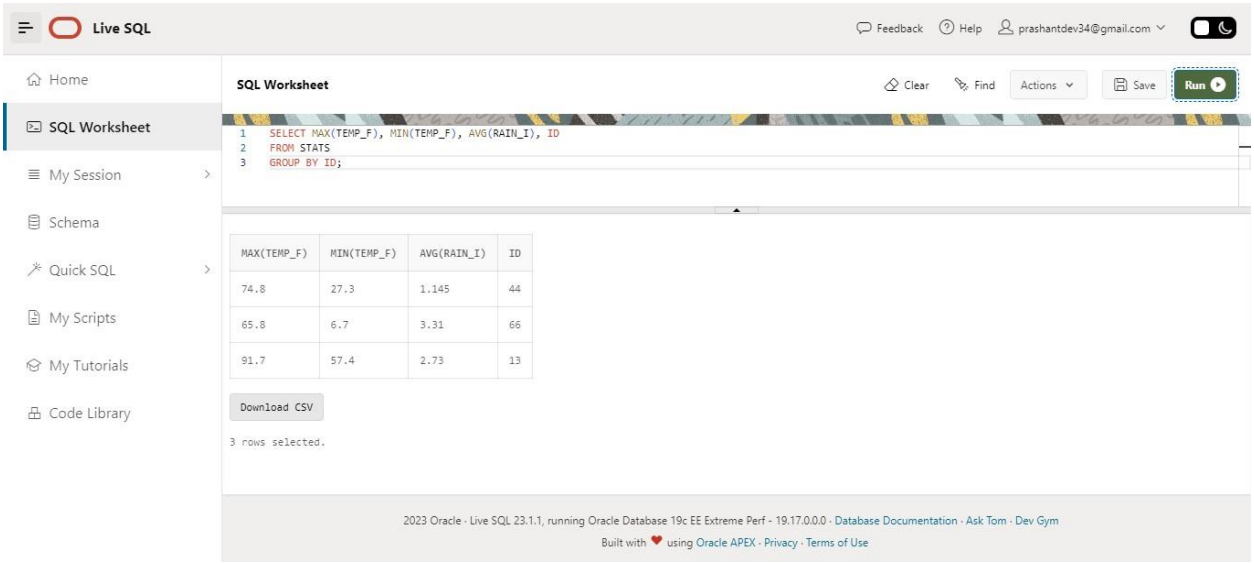
9. Execute a query to look at temperatures for July from table STATS, lowest temperatures first, picking up city name and latitude.

ANS 9



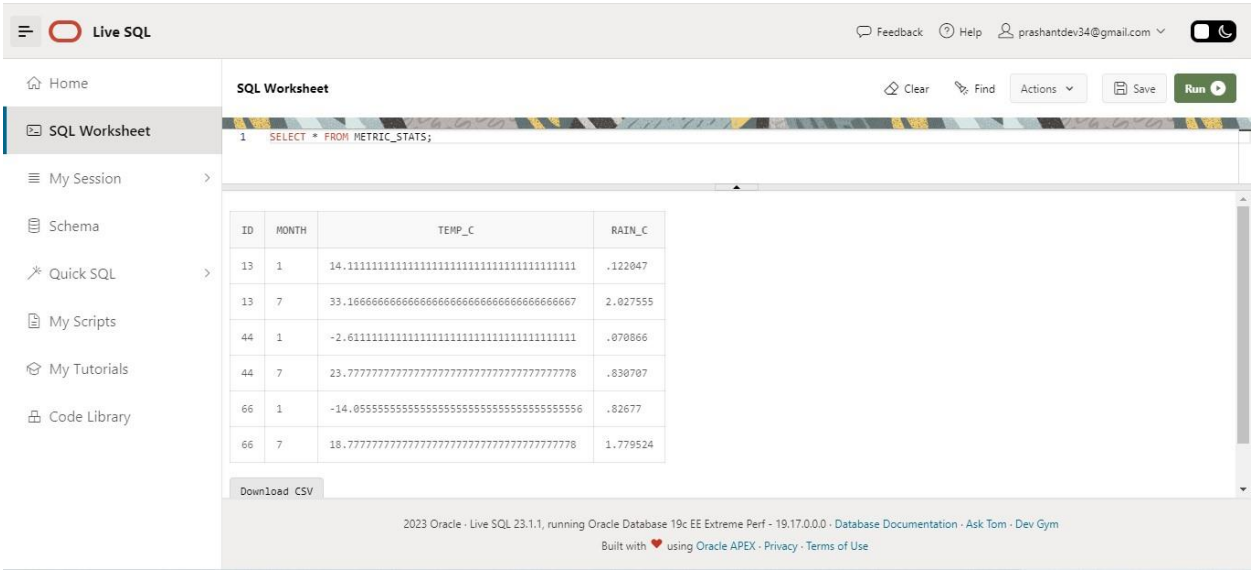
10. Execute a query to show MAX and MIN temperatures as well as average rainfall for each city.

ANS 10



11. Execute a query to display each city’s monthly temperature in Celcius and rainfall in Centimeter.

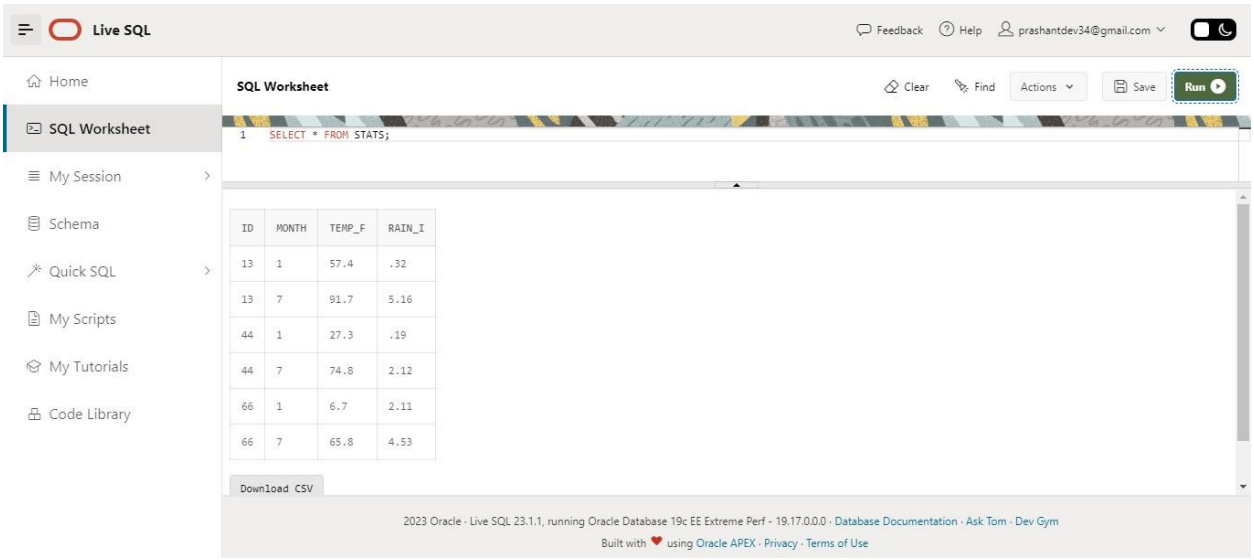
ANS 11



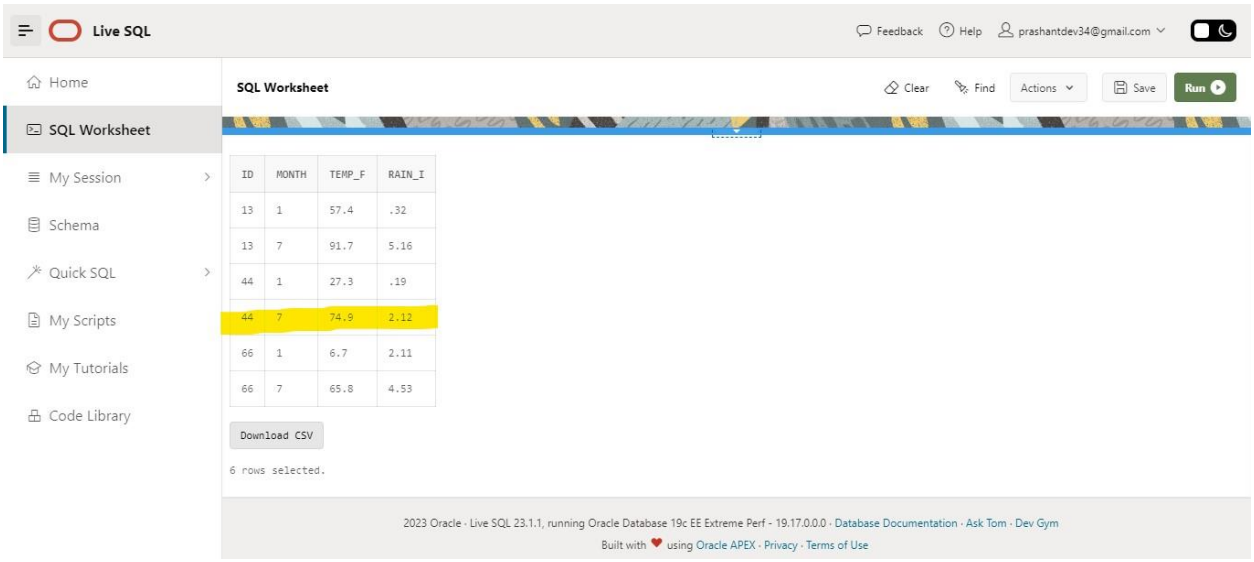
12. Update all rows of table STATS to compensate for faulty rain gauges known to read 0.01 inches low.

ANS 12

```
UPDATE STATS SET RAIN_I = RAIN_I + 0.01;
```



13. Update Denver's July temperature reading as 74.9

ANS 13

```
UPDATE STATS SET TEMP_F = 74.9
WHERE ID = 44
AND MONTH = 7;
```