Add Load Data Screenshots here

Q. Has the data been loaded okay? [SELECT, LIMIT]

```
postgres=# SELECT *
postgres-# FROM avo
postgres-# LIMIT 5;
 id |    date    | averageprice | totalvolume |  small  |   large   | xlarge | totalbags | smallbags | largebags | xlargebags |     type     | year | region
----+------------+--------------+-------------+---------+-----------+--------+-----------+-----------+-----------+------------+--------------+------+--------
  0 | 2015-12-27 |         1.33 |    64236.62 | 1036.74 |  54454.85 |  48.16 |   8696.87 |   8603.62 |     93.25 |       0.00 | conventional | 2015 | Albany
  1 | 2015-12-20 |         1.35 |    54876.98 |  674.28 |  44638.81 |  58.33 |   9505.56 |   9408.07 |     97.49 |       0.00 | conventional | 2015 | Albany
  2 | 2015-12-13 |         0.93 |   118220.22 |  794.70 | 109149.67 | 130.50 |   8145.35 |   8042.21 |    103.14 |       0.00 | conventional | 2015 | Albany
  3 | 2015-12-06 |         1.08 |    78992.15 | 1132.00 |  71976.41 |  72.58 |   5811.16 |   5677.40 |    133.76 |       0.00 | conventional | 2015 | Albany
  4 | 2015-11-29 |         1.28 |    51039.60 |  941.48 |  43838.39 |  75.78 |   6183.95 |   5986.26 |    197.69 |       0.00 | conventional | 2015 | Albany
(5 rows)
```

Q. Has all of the data been loaded [COUNT]

```
postgres=# SELECT COUNT(*)
postgres-# FROM avo
postgres-# ;
 count
-------
 18249
(1 row)
```

Q. How many different regions do we have data for [DISTINCT]

```
postgres=# SELECT COUNT (DISTINCT(region))
postgres-# FROM avo;
 count
-------
    54
(1 row)
```

Q. On which days did the average price in Albany exceed $2.10 [WHERE, LOGICAL OPERATORS, AND]

```
postgres=# SELECT date, averageprice, type
postgres-# FROM avo
postgres-# WHERE region = 'Albany' AND averageprice > 2.1;
    date    | averageprice |  type
------------+--------------+---------
 2017-06-25 |         2.13 | organic
(1 row)
```

Q. What are the top 10 regions for highest average price [GROUP BY, ORDER BY, aliasing, MAX]

```
postgres=#
postgres=# SELECT max(averageprice) AS HighestPrice, region
postgres-# FROM avo
postgres-# GROUP BY region
postgres-# ORDER BY HighestPrice DESC
postgres-# LIMIT 10 ;
 highestprice |      region
--------------+------------------
         3.25 | SanFrancisco
         3.17 | Tampa
         3.05 | MiamiFtLauderdale
         3.04 | RaleighGreensboro
         3.03 | LasVegas
         2.99 | Jacksonville
         2.96 | Seattle
         2.95 | Spokane
         2.93 | WestTexNewMexico
         2.87 | Orlando
(10 rows)
```

Q. How many small & large avocados were bought in New York & New Orleans over the total period [string search, wildcard, text search]

```
postgres=# SELECT sum(small) as small_total, sum(large) as large_total, region
postgres-# FROM avo
postgres-# WHERE region LIKE 'New%'
postgres-# GROUP BY region;
 small_total | large_total  |      region
-------------+--------------+------------------
  7639326.78 | 163353842.88 | NewYork
 26804739.08 |   4413219.12 | NewOrleansMobile
(2 rows)
```

Q. How does the average price in Albany vary throughout the 4 years of data. [ROUND, AVERAGE, AGGREGATE FUNCTION]

```
postgres=# SELECT round(avg(averageprice),2) AS avg_avgprice, year, region
postgres-# FROM avo
postgres-# WHERE region = 'Albany'
postgres-# GROUP BY year, region
postgres-# ORDER BY year;
 avg_avgprice | year | region
--------------+------+--------
         1.54 | 2015 | Albany
         1.53 | 2016 | Albany
         1.64 | 2017 | Albany
         1.44 | 2018 | Albany
(4 rows)
```

Q. How does the total number of organic avocados vary by year in Orlando. [WHERE filtering]

```
postgres=# SELECT ROUND(sum(small),0) AS Small_Avocados, ROUND(sum(large),0) AS Large_Avocados, region, year
postgres-# FROM avo
postgres-# WHERE type = 'organic' AND region = 'Orlando'
postgres-# GROUP BY year, region
postgres-# ORDER BY year;
 small_avocados | large_avocados | region  | year
----------------+----------------+---------+------
          91272 |           2674 | Orlando | 2015
         116550 |           6403 | Orlando | 2016
          47518 |          48139 | Orlando | 2017
           2453 |          10942 | Orlando | 2018
(4 rows)
```

Q. Which regions have the highest proportion of extra-large avocados purchased, remove any small regions which have sold < 1,000,000 in total? [WHERE]

```
postgres=# SELECT SUM(xlarge), ROUND(AVG(xlarge / (small + large + xlarge)*100),1) AS Percentage_XLarge_Avos, region
postgres-# FROM avo
postgres-# GROUP BY region
postgres-# HAVING sum(xlarge) > 1000000
postgres-# ORDER BY Percentage_XLarge_Avos DESC
postgres-# LIMIT 10;
     sum     | percentage_xlarge_avos |      region
-------------+------------------------+------------------
  3913522.04 |                   18.4 | Charlotte
  4027113.58 |                   12.4 | RaleighGreensboro
  8614802.90 |                   10.5 | Detroit
 19965391.05 |                    9.0 | Chicago
  3307836.82 |                    8.2 | GrandRapids
  1558374.28 |                    6.9 | SouthCarolina
 50075971.25 |                    6.2 | GreatLakes
  1077134.29 |                    6.2 | Boise
  1169413.51 |                    5.4 | RichmondNorfolk
 19031957.33 |                    5.3 | Midsouth
(10 rows)
```

Q. Analyse the outliers, were there any days where the average price was more than twice the overall average across the USA over the 4 years. [sub-query in WHERE]

```
postgres=# SELECT *
postgres-# FROM avo
postgres-# WHERE averageprice > (2 * (SELECT avg(averageprice) FROM avo))
postgres-# ORDER BY averageprice
postgres-# LIMIT 5;
 id |    date    | averageprice | totalvolume |  small  |  large  | xlarge | totalbags | smallbags | largebags | xlargebags |  type   | year |      region
----+------------+--------------+-------------+---------+---------+--------+-----------+-----------+-----------+------------+---------+------+-----------------
 17 | 2017-09-03 |         2.82 |    10311.34 |   17.76 | 4696.17 | 241.64 |   5355.77 |   5203.28 |    152.49 |       0.00 | organic | 2017 | Charlotte
 13 | 2017-10-01 |         2.82 |     8276.33 |   12.62 | 4182.38 | 174.37 |   3906.96 |   3656.44 |    250.52 |       0.00 | organic | 2017 | Charlotte
  7 | 2016-11-06 |         2.82 |     5372.30 | 1769.57 | 3105.69 |   0.00 |    497.04 |    493.71 |      3.33 |       0.00 | organic | 2016 | Sacramento
 13 | 2016-09-25 |         2.83 |     4984.76 |  652.27 | 3047.02 |   8.54 |   1276.93 |   1231.67 |     45.26 |       0.00 | organic | 2016 | WestTexNewMexico
 18 | 2017-08-27 |         2.83 |     9801.89 |   66.38 | 4585.79 | 175.49 |   4974.23 |   4970.90 |      3.33 |       0.00 | organic | 2017 | Charlotte
(5 rows)
```

Q. Compare the places with the highest average prices to the overall country average [Sub-Query in SELECT, CTE, Common Table Expression preparation]

```
postgres=# SELECT region, ROUND(AVG(averageprice),2) AS Region_Ave_Price, ROUND((SELECT avg(averageprice) FROM avo),2) AS Grand_Average
postgres-# FROM avo
postgres-# GROUP BY region
postgres-# ORDER BY Region_Ave_Price DESC
postgres-# LIMIT 5;
       region        | region_ave_price | grand_average
---------------------+------------------+---------------
 HartfordSpringfield |             1.82 |          1.41
 SanFrancisco        |             1.80 |          1.41
 NewYork             |             1.73 |          1.41
 Philadelphia        |             1.63 |          1.41
 Sacramento          |             1.62 |          1.41
(5 rows)
```