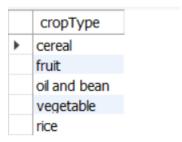
Let's assume a scenario. A customer will search for specific crops and related information. Then he/she will buy that crop. The operations will update the existing data in the database.

1. A customer will look for different crops stored in the system.

-- A customer will look for different crops stored in the system Select Distinct cropType from crop;



2. Now, he/she will only look for the durian (fruit) and related farmers.

```
Select * from crop
Where cropType = 'fruit' and cropName = 'durian';
```

cropId	cropName	cropQuantity	cropType	cropDescription	priceperUnit	farmerId
7	durian	521	fruit	a pede posuere nonummy	90.58	33
13	durian	733	fruit	quam pede lobortis ligula	81.95	40
24	durian	668	fruit	NULL	98.92	23
41	durian	707	fruit	NULL	92.37	66
42	durian	922	fruit	NULL	41.1	54
58	durian	435	fruit	NULL	71.37	60
59	durian	595	fruit	curae donec pharetra magna	94.26	6
75	durian	948	fruit	NULL	93.7	74
77	durian	336	fruit	mollis molestie lorem	43.6	91
NULL	HULL	NULL	NULL	NULL	NULL	NULL

3. Now he will select the farmers with durian and farmers' rating >= 3

```
15 • Select c.cropId, c.cropName, c.priceperUnit, c.farmerId, f.farmerFName, f.farmerLName, f.farmerLocation
      From crop c
17
      Left Join farmer f
      ON c.farmerId = f.farmerId
19
      Where (cropType = 'fruit' and cropName = 'durian') and
20
      f.farmerId IN (Select f2.farmerId From farmer f2 Where f2.farmerRating >= 3);
esult Grid 🔢 🙌 Filter Rows:
                               Export: Wrap Cell Content: TA
 cropId cropName priceperUnit farmerId farmerFName farmerLName farmerLocation
                 90.58
                           33
                                   Niki
                                               Dunford
                                                          41 Charing Cross Way
24
      durian
                98.92
                           23
                                 Olympe Matelyunas 1 Debra Court
                 92.37
                                   Patrizia
                                               Clutram
                                                          24 Dakota Junction
41
       durian
                           66
                         54 Enrichetta Smillie
                                                        70881 Linden Road
42 durian
                41.1
       durian
                 94.26
                                   Holmes
                                               Pleasants
                                                          42667 Monument Street
                                               Borg 437 Granby Point
77 durian
                43.6
                                Gayler
```

4. Now customer will buy durian from farmerId 33. Before that get some information about that farmer.

Select * from farmer Where farmerId = 33;

	farmerId	farmerFName	farmerMName	farmerLName	farmerPhone	farmerLocation	farmerGender	farmerRating
٠	33 NULL	Niki	Laīla	Dunford	437-510-0222	41 Charing Cross Way	Male	3
	NULL	HULL	NULL	NULL	NULL	HULL	HULL	NULL

Let's check the crop information of that farmer.

```
-- crop list of farmerId 33
Select * from crop Where farmerId = 33;
```

						_	
	cropId	cropName	cropQuantity	cropType	cropDescription	priceperUnit	farmerId
١	7	durian	521	fruit	a pede posuere nonummy	90.58	33
	NULL	NULL	NULL	NULL	MULL	NULL	NULL

Right now the farmer has 521 cropQantity of durian. Let's assume customer 20 will buy 30 quantity from him.

```
insert into fff.salesData (farmerId, customerId, cropId, salesQuantity, deliveryDate, orderDate, saleAmount) values (33, 20, 7, 30, '2022-09-08', '2022-08-08', 2715);
```

Then assume that payment for this transaction is done.

```
-- update payment
insert into fff.payment (customerId, farmerId, cropId, paymentStatus, paymentDate) values (20, 33, 7, 'Done', '2022-09-08');
```

Verify that payment is updated.

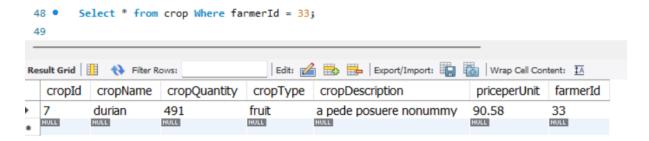
```
Select * from payment
Where customerId = 20;
```



5. Now update crop of farmerId 33 . 521 - 30 = 491

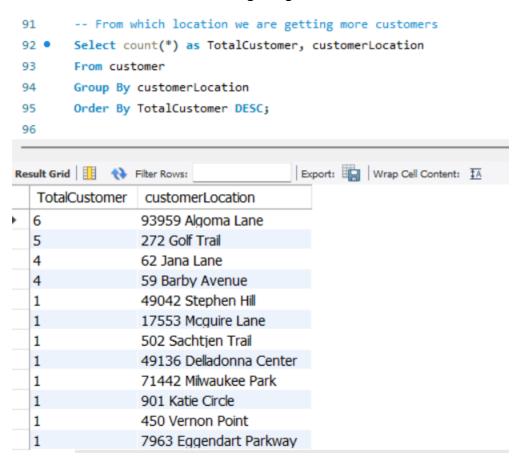
```
Update crop
Set cropQuantity = 491
Where cropId = 7 and farmerId = 33;
```

Check that the crop is updated for farmerId 33.



Customer Analysis

1. From Which location we are getting more customers.



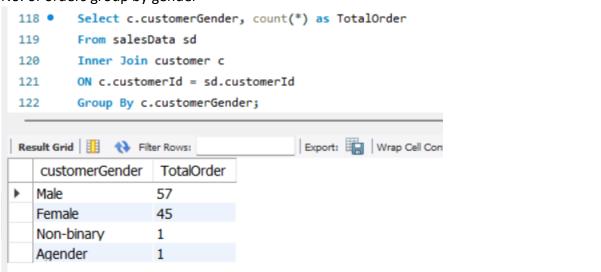
2. No. of customers by gender

```
Select customerGender, count(*) as TotalCustomer
102
        From customer
       Where customerGender = 'Male' or customerGender = 'Female'
103
        Group By customerGender;
104
105
106
Export: Wrap Cell Content: TA
  customerGender
                 TotalCustomer
  Male
                  53
  Female
                  40
```

3. No. of customers group by Age



4. No. of orders group by gender

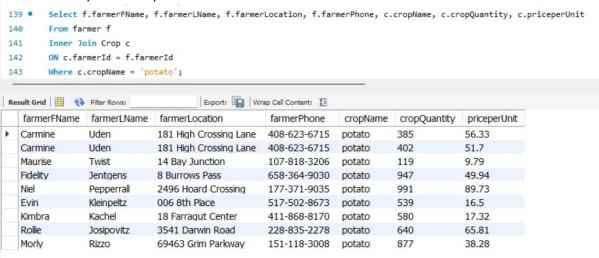


5. Top 5 customers who ordered the most.

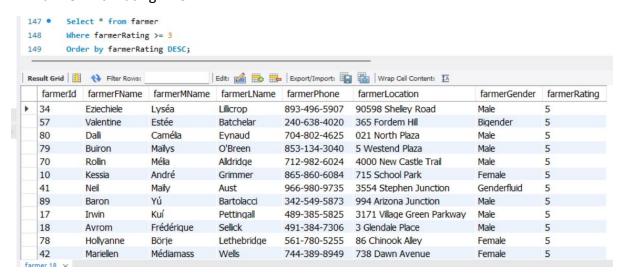
```
Select c.customerId, concat(c.customerFName, ' ', c.customerLName) as CustomerName ,c.customerGender,
126 •
127
        c.customerLocation, count(*) as TotalOrder
        From salesData sd
128
129
        Inner Join customer C
        ON sd.customerId = c.customerId
130
131
        Group By c.customerId
132
        Order By TotalOrder DESC LIMIT 5;
                                                                                Export: Wrap Cell Content: TA Fetch rows:
   customerId
               CustomerName
                                customerGender
                                                 customerLocation
                                                                         TotalOrder
                                                5 Ridgeway Street
                                                                         3
  38
               Sidnee De Filippo
                               Male
  57
               Gav McLura
                               Male
                                                0 Rvan Allev
                                                                         3
  23
               Clara Wingatt
                                                71442 Milwaukee Park
                                                                         3
                               Female
  26
                                                7963 Eggendart Parkway 3
               Shaylyn Niblo
                               Female
               Doy Meadway
                                                5236 Hollow Ridge Place
  62
                               Male
```

Farmer Analysis

1. Farmer with specific crop



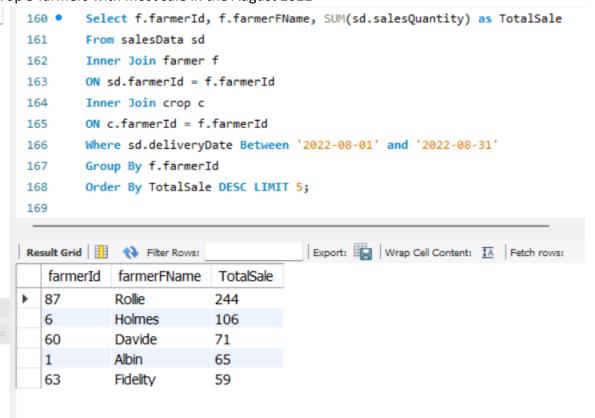
2. Farmer with rating >= 3



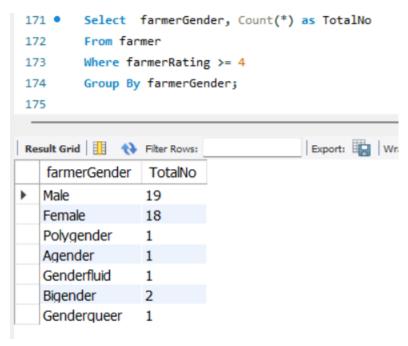
3. Farmer's sales data for August 2022

```
-- farmer's sales data for August 2022
151
        select farmerId, sum(saleAmount) as TotalSales
152 •
        from salesData
153
        where deliveryDate > '2022-07-31' and deliveryDate < '2022-09-01'</pre>
154
        group by farmerId;
155
156
                                       Export: Wrap Cell Content: IA
farmerId
            TotalSales
            114
  6
            403
  28
            471
            252
  36
  51
            100
  60
            275
  63
            145
  68
            390
  74
            272
            450
  87
```

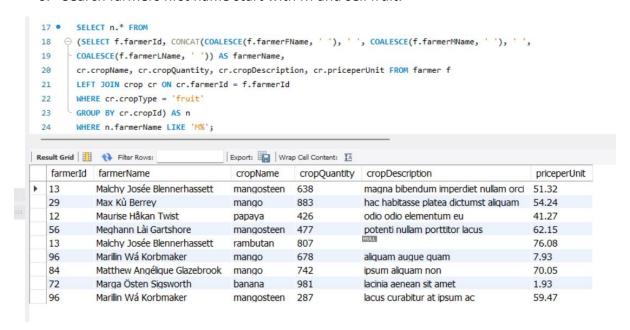
4. Top 5 farmers with most sale in the August 2022



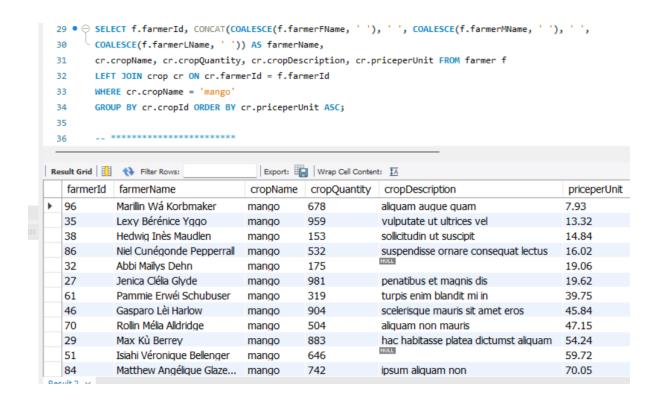
5. Male, female or other gender who is having rating >= 4. We see that in terms of high rating male and female gender having almost similar value.



6. Search farmers first name start with M and sell fruit.

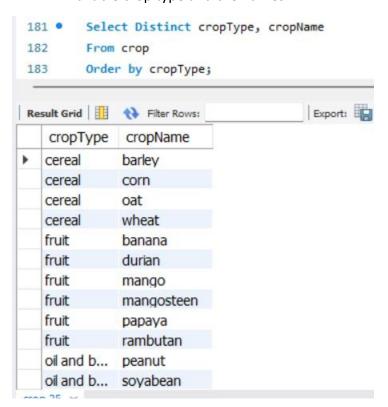


7. Search farmers who sell mango from cheap to expensive.



Crop Analysis

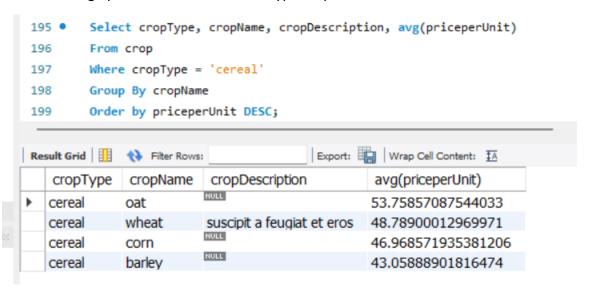
1. Available crop type and the names



2. Average prices of different types of fruits

```
Select cropType, cropName, cropDescription, avg(priceperUnit)
         From crop
188
         Where cropType = 'fruit'
189
         Group By cropName
190
         Order by priceperUnit DESC;
191
Result Grid
                                          Export: Wrap Cell Content: TA
              Filter Rows:
   cropType
               cropName
                             cropDescription
                                                        avg(priceperUnit)
  fruit
              durian
                            a pede posuere nonummy
                                                       78.6499998304579
  fruit
                                                       52.6879997253418
              papaya
                            NULL
   fruit
                                                       34.802856768880574
              banana
                            NULL
  fruit
              mangosteen
                                                       57.78466691970825
  fruit
              rambutan
                            molestie nibh in
                                                       41.610000133514404
                            turpis enim blandit mi in
                                                       41.108572244644165
  fruit
              mango
```

3. Average prices of different cereal type crops



4. Top 10 crop with best sales in 2022

```
Select c.cropName, c.farmerId, sum(sd.salesQuantity) as TotalSale
203
        From crop c
204
        Inner Join salesData sd
205
206
        ON c.cropId = sd.cropId
        Where deliveryDate > '2021-12-31'
207
        Group BY c.cropName
208
        Order BY TotalSale DESC LIMIT 10;
209
210
                                      Export: Wrap Cell Content: TA Fetch rows
cropName
                farmerId
                         TotalSale
  potato
               12
                         469
   rice
               20
                         374
               27
                         306
   banana
   mangosteen
               90
                         294
   durian
               6
                         291
               6
                         276
   papaya
   corn
               29
                         228
   peanut
               99
                         171
   rambutan
                         165
               49
   mango
               38
                         152
```

5. Top 10 crops with best sales in 2021

```
213 •
        Select c.cropName, c.farmerId, sum(sd.salesQuantity) as TotalSale
        From crop c
214
215
        Inner Join salesData sd
        ON c.cropId = sd.cropId
216
        Where deliveryDate >= '2021-01-01' and deliveryDate <= '2021-12-31'
217
218
        Group By c.cropName
        Order BY TotalSale DESC LIMIT 10;
219
Export: Wrap Cell Content: TA Fetch rows:
   cropName
               farmerId
                        TotalSale
  mangosteen
               35
                         433
  wheat
               48
                         214
  tomato
               23
                         191
               48
                         190
  barley
  rambutan
               18
                         175
  corn
               92
                         169
  durian
               33
                         165
  papaya
               78
                         123
               86
                         111
  mango
  rice
               93
                         101
```

6. Crops sold in summer season.

```
233 •
        Select c.cropName, count(sd.cropId) as TotalFrequency_Summer_Season
        From crop c
234
        Inner Join salesData sd
235
        ON c.cropId = sd.cropId
236
237
        Where deliveryDate >= '2022-03-01' and deliveryDate <= '2022-05-31'
238
        Group By c.cropName
        Order By TotalFrequency_Summer_Season DESC;
239
240
Export: Wrap Cell Content: IA
               TotalFrequency_Summer_Season
   cropName
               3
  rice
  durian
               3
               3
  mango
               2
  banana
  tomato
               1
               1
  papaya
  oat
               1
  mangosteen 1
  corn
               1
  potato
               1
  rambutan
               1
```

7. Crops sold in winter season.

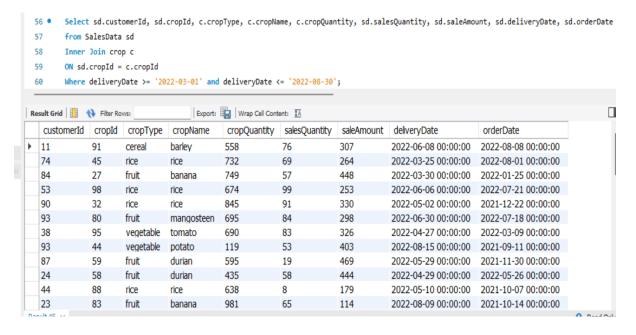
```
Select c.cropName, count(sd.cropId) as TotalFrequency_Winter_Season
243
        From crop c
244
        Inner Join salesData sd
245
        ON c.cropId = sd.cropId
246
        Where deliveryDate >= '2021-11-01' and deliveryDate <= '2021-12-31'
247
        Group By c.cropName
248
        Order By TotalFrequency_Winter_Season DESC;
249
                                      Export: Wrap Cell Content: IA
cropName
               TotalFrequency_Winter_Season
  wheat
               3
  tomato
               3
  papaya
               3
               3
  rice
  barley
               2
               2
  mangosteen
  oat
               1
  banana
               1
  durian
               1
  soyabean
               1
  corn
               1
  rambutan
               1
```

8. Crops sold in rainy season.

```
253 •
        Select c.cropName, count(sd.cropId) as TotalFrequency_Rainy_Season
254
        From crop c
        Inner Join salesData sd
255
        ON c.cropId = sd.cropId
256
        Where deliveryDate >= '2021-06-01' and deliveryDate <= '2021-10-31'
257
        Group By c.cropName
258
        Order By TotalFrequency Rainy Season DESC;
259
260
261
                                       Export: Wrap Cell Content: IA
cropName
                TotalFrequency_Rainy_Season
  mangosteen
               5
  durian
               4
  wheat
                2
  rambutan
               2
  rice
                1
  barley
                1
                1
  mango
                1
  peanut
                1
  banana
                1
  corn
```

Sales Data Analysis

1. Sales data for the last 6 months



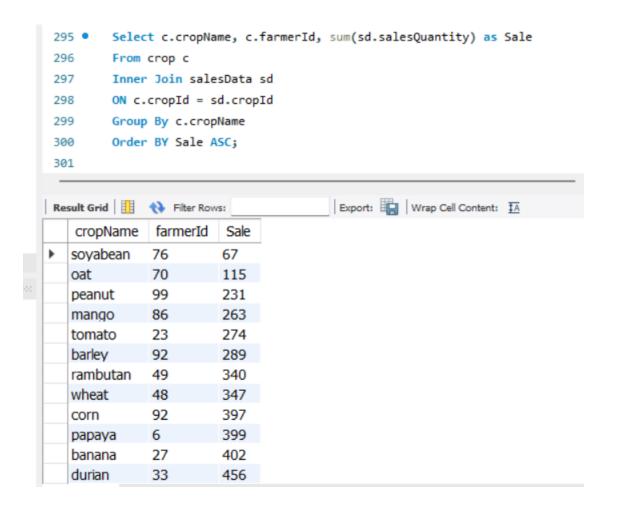
2. Most sold crops in the last 6 months

```
Select c.cropName, Sum(sd.salesQuantity) as TotalQuantity
 73
       From crop c
       Inner Join salesData sd
       ON c.cropId = sd.cropId
 75
       Where deliveryDate >= '2022-03-01' and deliveryDate <= '2022-08-30'
 76
       Group By c.cropName
 78
       Order BY TotalQuantity DESC;
                                     Export: Wrap Cell Content: IA
TotalQuantity
  cropName
  potato
               370
  rice
               336
  banana
               306
  durian
               261
  mangosteen
               209
               191
  corn
  mango
               152
  wheat
               124
               94
  papaya
  barley
               90
  tomato
               83
               75
  peanut
```

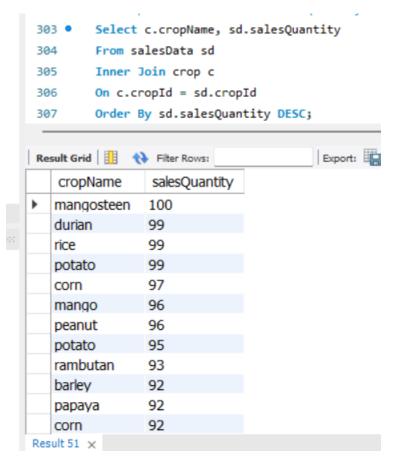
3. Most sold (sort by crop type)

```
82 •
        Select c.cropType, SUM(sd.salesQuantity) as TotalQuantity
 83
        From crop c
        Inner Join salesData sd
        ON c.cropId = sd.cropId
 85
        Where deliveryDate >= '2022-03-01' and deliveryDate <= '2022-08-30'
 86
 87
        Group BY c.cropType
        Order BY TotalQuantity DESC;
 88
                                         Export: Wrap Cell Content: IA
Result Grid
             Filter Rows:
                TotalQuantity
   cropType
  fruit
                1086
  vegetable
                453
                448
  cereal
                336
  rice
  oil and bean
               75
```

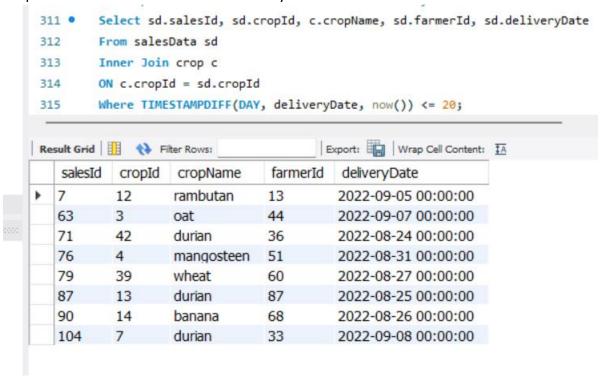
4. Crops with least sales (in quantity)



5. Crops that was the most in quantity in one transaction



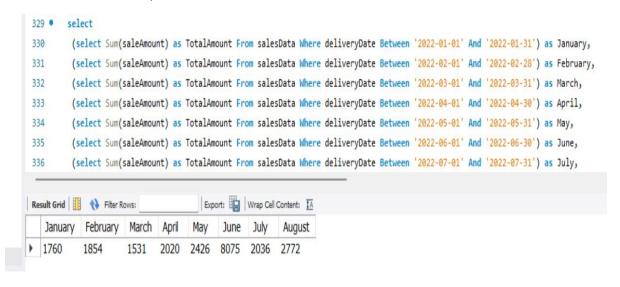
6. Crops that were delivered in the last 20 days



7. Which farmer sold durian most

```
319 •
         Select f.farmerId, f.farmerFName, sum(sd.salesQuantity) as Total
320
         From farmer f
        Inner Join salesData sd
321
        ON sd.farmerId = f.farmerId
322
         Inner Join crop c
323
        ON c.cropId = sd.cropId
324
325
        Where c.cropName = 'durian'
        Order By Total DESC LIMIT 1;
326
327
                                          Export: Wrap Cell Content: TA Fetch ro
Result Grid
             Filter Rows:
   farmerId
             farmerFName
                            Total
  70
             Rollin
                            456
```

8. Total sale amount per month in 2022



Pending payment for August 2022

```
344 •
        select paymentId, customerId, farmerId, cropId, paymentStatus
345
        from payment
        where (paymentDate > '2022-07-31' and paymentDate < '2022-09-01') and paymentStatus = 'Pending';
346
347
| Edit: 🕍 🔜 | Export/Import: 🏣 🌇 | Wrap Cell Content: 🖽
   paymentId customerId farmerId cropId paymentStatus
   8
              50
                          74
                                   7
                                           Pending
   29
              43
                          62
                                   18
                                           Pending
   59
              50
                                           Pending
                          72
                                   29
             84
                         17
RULL
   69
                                  6
                                           Pending
```