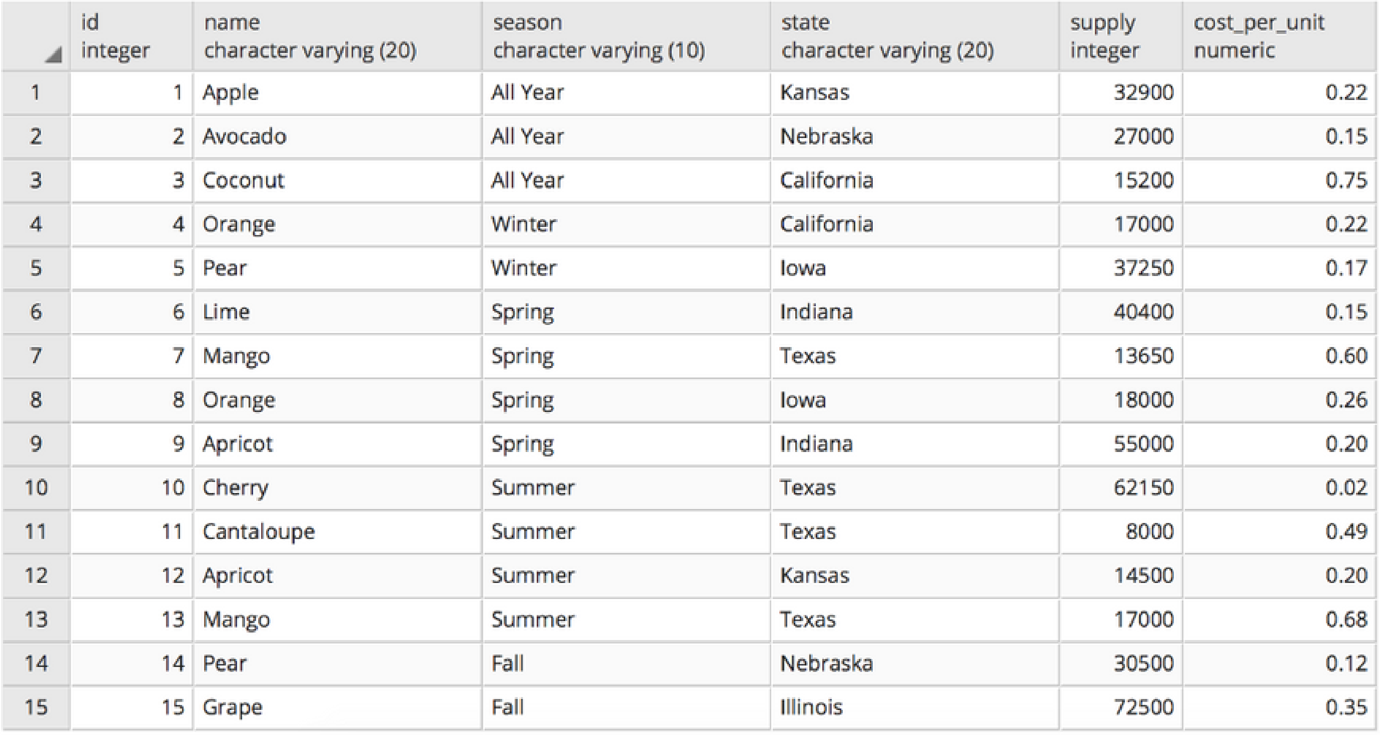
Assignment 6: Practice Using Case and Transposing Data

This assignment involves using the table you created in Assignment 4. We'll be getting practice using the CASE statement in interesting ways and transposing data.

The image below shows the fruit_imports table you created in assignment 4. The problems that follow will be using this table.



	id	name	season	state	supply	cost_per_unit
	integer	character varying (20)	character varying (10)	character varying (20)	integer	numeric
1	1	Apple	All Year	Kansas	32900	0.22
2	2	Avocado	All Year	Nebraska	27000	0.15
3	3	Coconut	All Year	California	15200	0.75
4	4	Orange	Winter	California	17000	0.22
5	5	Pear	Winter	Iowa	37250	0.17
6	6	Lime	Spring	Indiana	40400	0.15
7	7	Mango	Spring	Texas	13650	0.60
8	8	Orange	Spring	Iowa	18000	0.26
9	9	Apricot	Spring	Indiana	55000	0.20
10	10	Cherry	Summer	Texas	62150	0.02
11	11	Cantaloupe	Summer	Texas	8000	0.49
12	12	Apricot	Summer	Kansas	14500	0.20
13	13	Mango	Summer	Texas	17000	0.68
14	14	Pear	Fall	Nebraska	30500	0.12
15	15	Grape	Fall	Illinois	72500	0.35

Questions for this assignment

1. Write a query that displays 3 columns. The query should display the fruit and it's total supply along with a category of either LOW, ENOUGH or FULL. Low category means that the total supply of the fruit is less than 20,000. The enough category means that the total supply is between 20,000 and 50,000. If the total supply is greater than 50,000 then that fruit falls in the full category.

2. Taking into consideration the supply column and the cost_per_unit column, you should be able to tabulate the total cost to import fruits by each season. The result will look something like this:

```
"Winter" "10072.50"
"Summer" "19623.00"
"All Year" "22688.00"
"Spring" "29930.00"
"Fall" "29035.00"
```

Write a query that would transpose this data so that the seasons become columns and the total cost for each season fills the first row?

Do not scroll past here without trying out the assignment yourself

Instructor Solutions for this assignment

1. Write a query that displays 3 columns. The query should display the fruit and it's total supply along with a category of either LOW, ENOUGH or FULL. Low category means that the total supply of the fruit is less than 20,000. The enough category means that the total supply is between 20,000 and 50,000. If the total supply is greater than 50,000 then that fruit falls in the full category.

```
SELECT name, total_supply,
CASE WHEN total_supply < 20000 THEN 'LOW'
   WHEN total_supply >= 20000 AND total_supply <= 50000 THEN 'ENOUGH'
   WHEN total_supply > 50000 THEN 'FULL'
END as category
FROM (
SELECT name, sum(supply) total_supply
FROM fruit_imports
GROUP BY name
  ) a
```

2. Taking into consideration the supply column and the cost_per_unit column, you should be able to tabulate the total cost to import fruits by each season. The result will look something like this:

```
"Winter" "10072.50"
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```

Write a query that would transpose this data so that the seasons become columns and the total cost for each season fills the first row?

```
SELECT SUM(CASE WHEN season = 'Winter' THEN total_cost end) as Winter_total,

SUM(CASE WHEN season = 'Summer' THEN total_cost end) as Summer_total,

SUM(CASE WHEN season = 'Spring' THEN total_cost end) as Spring_total,

SUM(CASE WHEN season = 'Fall' THEN total_cost end) as Spring_total,

SUM(CASE WHEN season = 'All Year' THEN total_cost end) as Spring_total

FROM (

select season, sum(supply * cost_per_unit) total_cost

from fruit_imports

group by season

   ) a
```