Detect and Remove Outliers


```sql
WITH cte1 as (
  SELECT CustomerID, ShipName, ShipAddress, ShipPostalCode, ShipCountry,
  ROW_NUMBER() OVER(partition by CustomerID order by CustomerID) as rn
  from Orders
)

SELECT * FROM cte1 WHERE rn = 1
```

	CustomerID	ShipName	ShipAddress	ShipPostalCode	ShipCount
1	ALFKI	Alfreds Futterkiste	Obere Str. 57	12209	Germany
2	ANATR	Ana Trujillo Emparedados y helados	Avda. de la Constitución 2222	05021	Mexico
3	ANTON	Antonio Moreno Taquería	Mataderos 2312	05023	Mexico
4	AROUT	Around the Horn	Brook Farm Stratford St. Mary	CO7 6JX	UK
5	BERGS	Berglunds snabbköp	Berguvsvägen 8	S-958 22	Sweden

Clean Data With Case Statements


```sql
select Freight,
CASE WHEN Freight between 0 and 50 THEN 'Low Charge'
    WHEN freight between 50 and 200 THEN 'Medium Charge'
    WHEN freight > 200 THEN 'High Charge'
    Else 'No charge'
END as Charge
from Orders
```

	Freight	Charge
1	32.38	Low Charge
2	11.61	Low Charge
3	65.83	Medium Charge
4	41.34	Low Charge
5	51.30	Medium Charge
6	58.17	Medium Charge
7	22.98	Low Charge

Dealing with NULLs

```sql
SELECT QuantityPerUnit,
CASE WHEN UnitsOnOrder >50 and UnitsInStock <20 then 'Restock Now'
    WHEN UnitsOnOrder between 30 and 50 and UnitsInStock<20 THEN 'Restock Next Week'
    WHEN UnitsOnOrder between 30 and 50 and UnitsInStock<50 THEN 'Restock Next Month'
    WHEN UnitsOnOrder <30 and UnitsInStock<50 THEN 'Restock in 6 months'
    ELSE 'Ask Manager'
END as WhenToRestock
from Products
```

	QuantityPerUnit	WhenToRestock
1	10 boxes x 20 bags	Restock in 6 months
2	24 - 12 oz bottles	Restock Next Week
3	12 - 550 ml bottles	Restock Now
4	48 - 6 oz jars	Ask Manager
	36 boxes	Restock in 6 months
	12 - 8 oz jars	Ask Manager
	12 - 1 lb pkgs	Restock in 6 months

Northwind   ▷ Execute

SQLQuery6.sql - EC...Administrator (62))   SQLQuery5.sql - EC...Administrator (67))*

```sql
with blank_fax as (
  SELECT CustomerID, ContactName, City, Region,
  ISNULL(Fax, 'No Fax') as Fax
  from Customers
)

select * from blank_fax where fax = 'No Fax'
```

100 %

Results   Messages

	CustomerID	ContactName	City	Region	Fax
1	ANTON	Antonio Moreno	México D.F.	NULL	No Fax
2	BSBEV	Victoria Ashworth	London	NULL	No Fax
3	CHOPS	Yang Wang	Bern	NULL	No Fax
4	COMMI	Pedro Afonso	Sao Paulo	SP	No Fax
5	FAMIA	Aria Cruz	Sao Paulo	SP	No Fax
6	FOLKO	Maria Larsson	Bräcke	NULL	No Fax