Name:- Atish Kumar

Roll No:- 120CS0173

Date:- 16 March, 2022

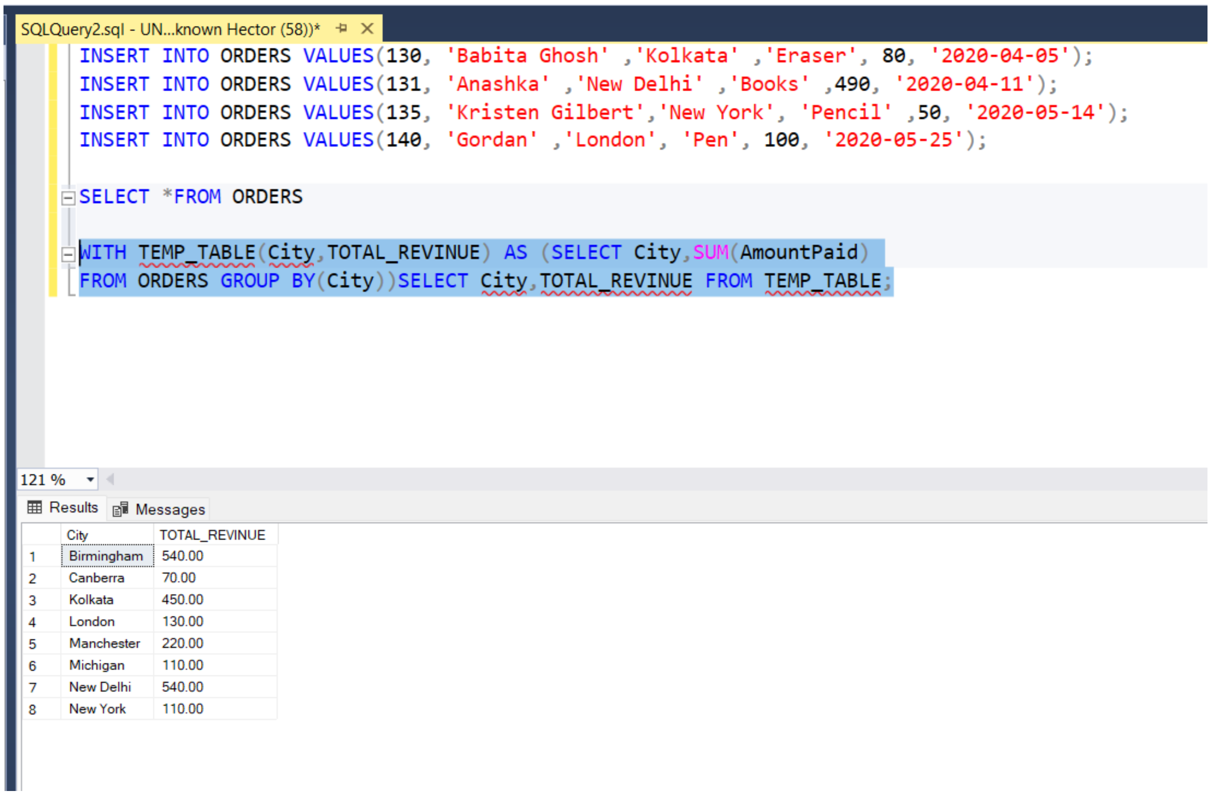
DE Lab Assignment 05

1. Display total revenue generated country wise (using with clause)

Program:-

```
WITH TEMP_TABLE(City,TOTAL_REVINUE) AS (SELECT City,SUM(AmountPaid)
FROM ORDERS GROUP BY(City))SELECT City,TOTAL_REVINUE FROM TEMP_TABLE;
```

Output:-



SQLQuery2.sql - UN...known Hector (58))*

```
INSERT INTO ORDERS VALUES(130, 'Babita Ghosh' ,'Kolkata' ,'Eraser', 80, '2020-04-05');
INSERT INTO ORDERS VALUES(131, 'Anashka' ,'New Delhi' ,'Books' ,490, '2020-04-11');
INSERT INTO ORDERS VALUES(135, 'Kristen Gilbert','New York', 'Pencil' ,50, '2020-05-14');
INSERT INTO ORDERS VALUES(140, 'Gordan' ,'London', 'Pen', 100, '2020-05-25');

SELECT *FROM ORDERS

WITH TEMP_TABLE(City,TOTAL_REVINUE) AS (SELECT City,SUM(AmountPaid)
FROM ORDERS GROUP BY(City))SELECT City,TOTAL_REVINUE FROM TEMP_TABLE;
```

121 %

Results Messages

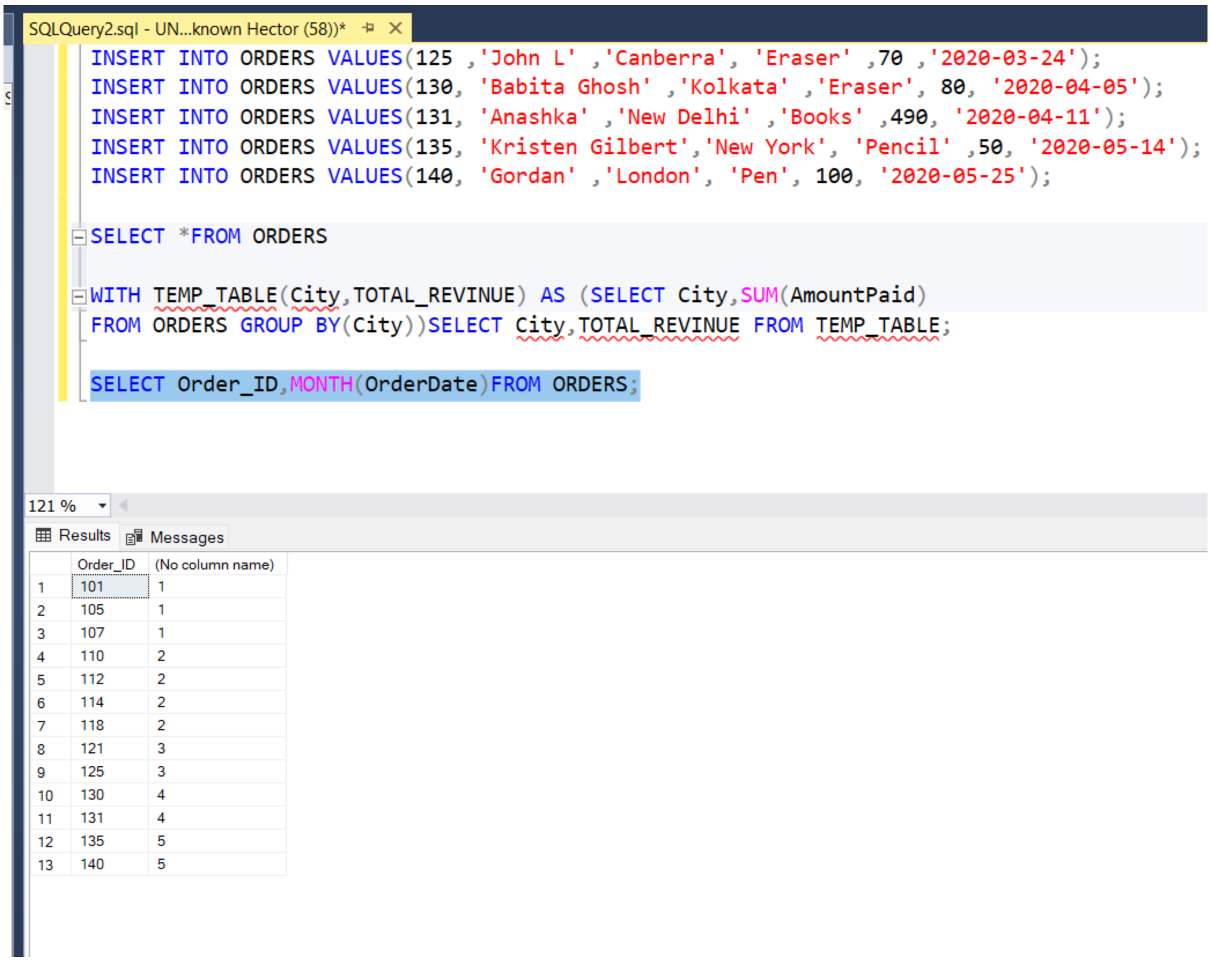
	City	TOTAL_REVINUE
1	Birmingham	540.00
2	Canberra	70.00
3	Kolkata	450.00
4	London	130.00
5	Manchester	220.00
6	Michigan	110.00
7	New Delhi	540.00
8	New York	110.00

2. Display the month of each order from order date

Program:-

```
SELECT Order_ID,MONTH(OrderDate)FROM ORDERS;
```

Output



SQLQuery2.sql - UN...known Hector (58))*

```
INSERT INTO ORDERS VALUES(125 ,'John L' ,'Canberra', 'Eraser' ,70 ,'2020-03-24');
INSERT INTO ORDERS VALUES(130, 'Babita Ghosh' ,'Kolkata' ,'Eraser', 80, '2020-04-05');
INSERT INTO ORDERS VALUES(131, 'Anashka' ,'New Delhi' ,'Books' ,490, '2020-04-11');
INSERT INTO ORDERS VALUES(135, 'Kristen Gilbert','New York', 'Pencil' ,50, '2020-05-14');
INSERT INTO ORDERS VALUES(140, 'Gordan' ,'London', 'Pen', 100, '2020-05-25');

SELECT *FROM ORDERS

WITH TEMP_TABLE(City,TOTAL_REVINUE) AS (SELECT City,SUM(AmountPaid)
FROM ORDERS GROUP BY(City))SELECT City,TOTAL_REVINUE FROM TEMP_TABLE;

SELECT Order_ID,MONTH(OrderDate)FROM ORDERS;
```

121 %

Results | Messages

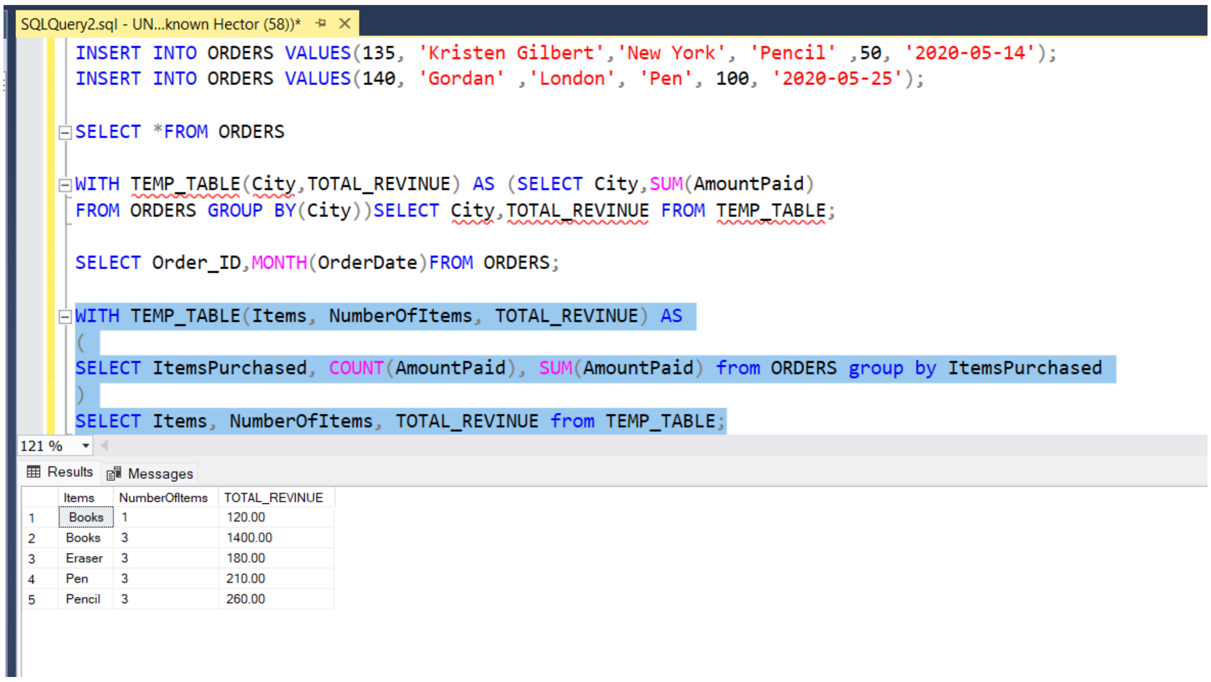
	Order_ID	(No column name)
1	101	1
2	105	1
3	107	1
4	110	2
5	112	2
6	114	2
7	118	2
8	121	3
9	125	3
10	130	4
11	131	4
12	135	5
13	140	5

3. Display number of orders placed and the total revenue generated per month by different categories of items (Using with clause)

Program:-

```
WITH TEMP_TABLE(Items, NumberOfItems, TOTAL_REVINUE) AS
(
SELECT ItemsPurchased, COUNT(AmountPaid), SUM(AmountPaid) from ORDERS group by
ItemsPurchased
)
SELECT Items, NumberOfItems, TOTAL_REVINUE from TEMP_TABLE;
```

Output:-



SQLQuery2.sql - UN...known Hector (58))*

```
INSERT INTO ORDERS VALUES(135, 'Kristen Gilbert','New York', 'Pencil' ,50, '2020-05-14');
INSERT INTO ORDERS VALUES(140, 'Gordan' ,'London', 'Pen', 100, '2020-05-25');

SELECT *FROM ORDERS

WITH TEMP_TABLE(City,TOTAL_REVINUE) AS (SELECT City,SUM(AmountPaid)
FROM ORDERS GROUP BY(City))SELECT City,TOTAL_REVINUE FROM TEMP_TABLE;

SELECT Order_ID,MONTH(OrderDate)FROM ORDERS;

WITH TEMP_TABLE(Items, NumberOfItems, TOTAL_REVINUE) AS
(
SELECT ItemsPurchased, COUNT(AmountPaid), SUM(AmountPaid) from ORDERS group by ItemsPurchased
)
SELECT Items, NumberOfItems, TOTAL_REVINUE from TEMP_TABLE;
```

121 %

Results Messages

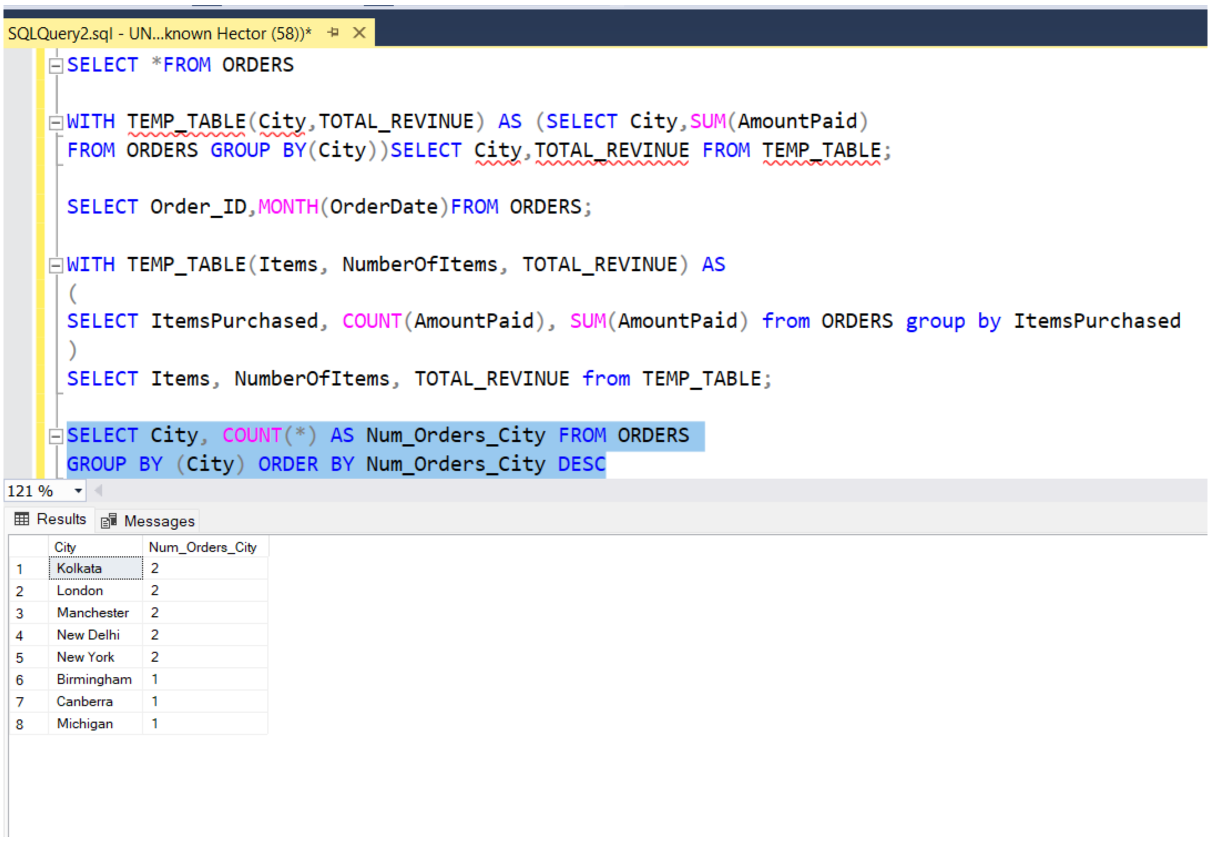
	Items	NumberOfItems	TOTAL_REVINUE
1	Books	1	120.00
2	Books	3	1400.00
3	Eraser	3	180.00
4	Pen	3	210.00
5	Pencil	3	260.00

4. Find the number of customers in each city, sorted high to low

Program:-

```
SELECT City, COUNT(*) AS Num_Orders_City FROM ORDERS
GROUP BY (City) ORDER BY Num_Orders_City DESC
```

Output



SQLQuery2.sql - UN...known Hector (58))*

```
SELECT *FROM ORDERS

WITH TEMP_TABLE(City,TOTAL_REVINUE) AS (SELECT City,SUM(AmountPaid)
FROM ORDERS GROUP BY(City))SELECT City,TOTAL_REVINUE FROM TEMP_TABLE;

SELECT Order_ID,MONTH(OrderDate)FROM ORDERS;

WITH TEMP_TABLE(Items, NumberOfItems, TOTAL_REVINUE) AS
(
SELECT ItemsPurchased, COUNT(AmountPaid), SUM(AmountPaid) from ORDERS group by ItemsPurchased
)
SELECT Items, NumberOfItems, TOTAL_REVINUE from TEMP_TABLE;

SELECT City, COUNT(*) AS Num_Orders_City FROM ORDERS
GROUP BY (City) ORDER BY Num_Orders_City DESC
```

121 %

Results Messages

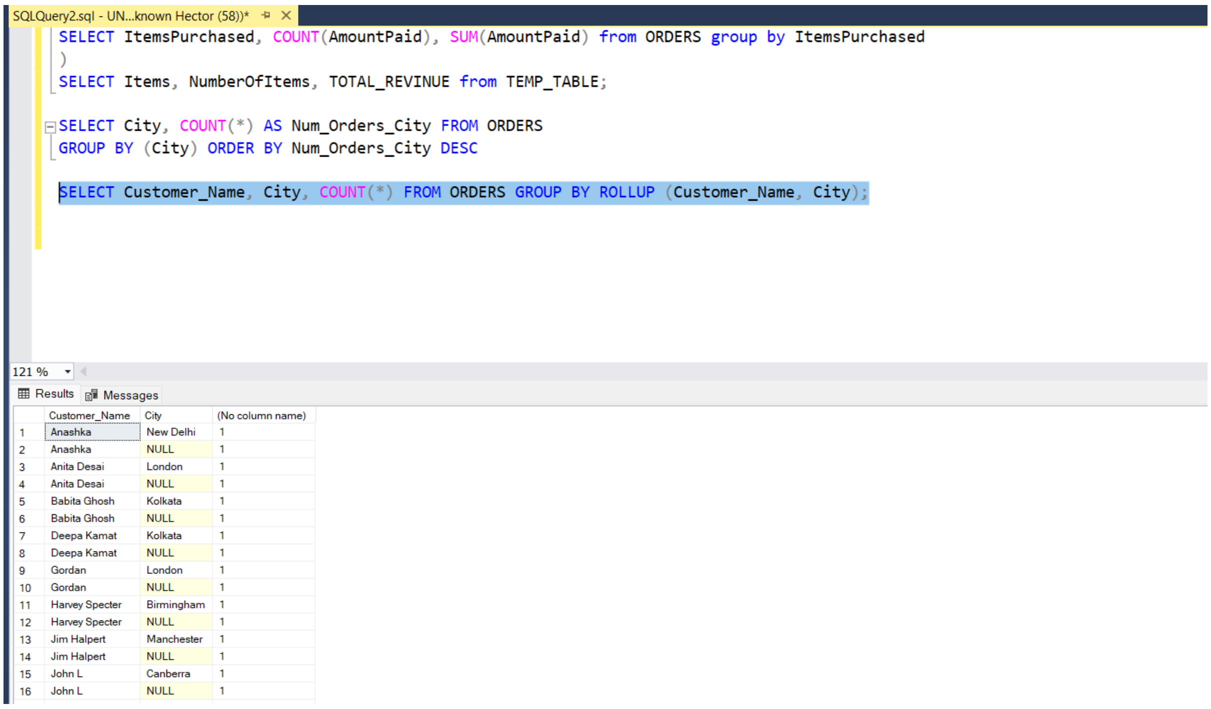
	City	Num_Orders_City
1	Kolkata	2
2	London	2
3	Manchester	2
4	New Delhi	2
5	New York	2
6	Birmingham	1
7	Canberra	1
8	Michigan	1

5. Run a group by roll up, cube and grouping sets on customer name and city

Program:-

```sql
SELECT Customer_Name, City, COUNT(*) FROM ORDERS GROUP BY ROLLUP (Customer_Name,
City);

SELECT Customer_Name City, COUNT(*) FROM ORDERS GROUP BY CUBE (Customer_Name, City);

SELECT Customer_Name City, COUNT(*) FROM ORDERS  GROUP BY GROUPING SETS
(ROLLUP(Customer_Name, City), CUBE(Customer_Name, City));
```

Output



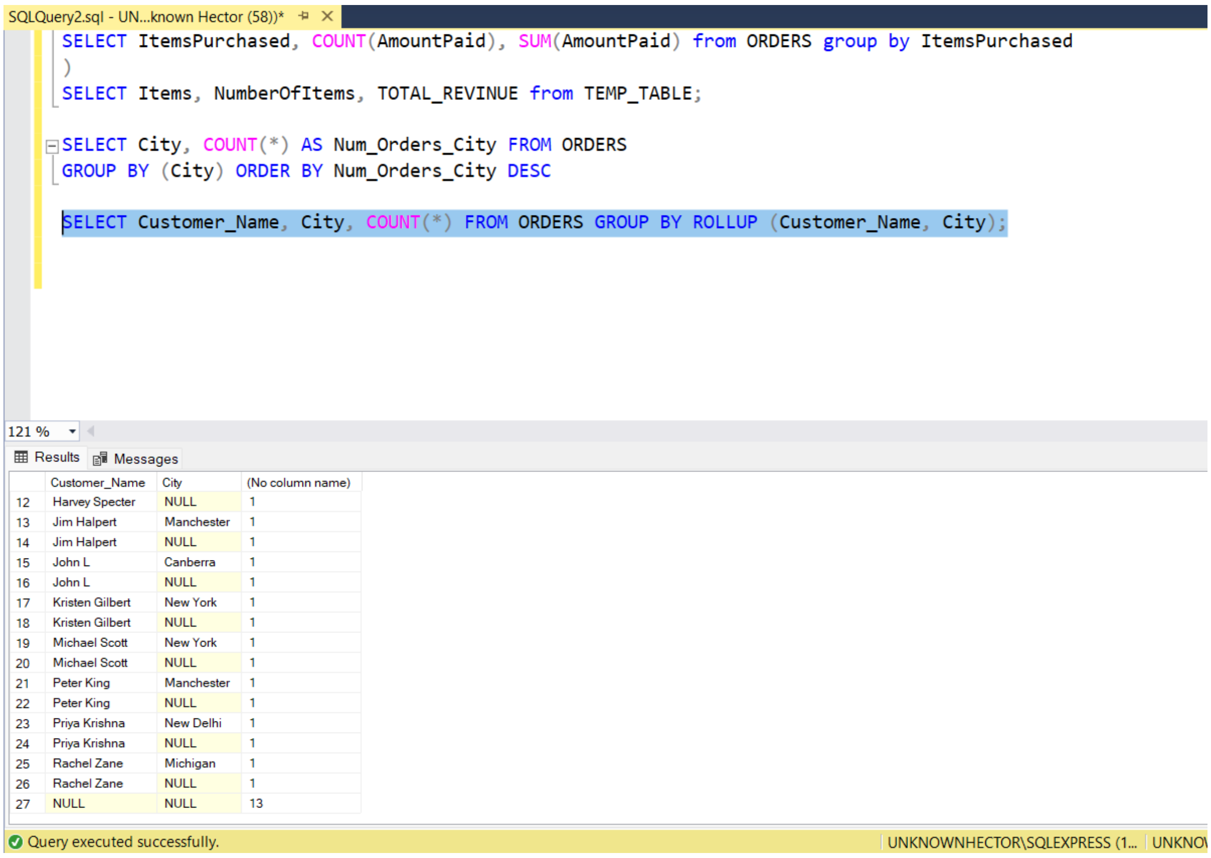
SQLQuery2.sql - UN...known Hector (58))*

```sql
SELECT ItemsPurchased, COUNT(AmountPaid), SUM(AmountPaid) from ORDERS group by ItemsPurchased
)
SELECT Items, NumberOfItems, TOTAL_REVINUE from TEMP_TABLE;

SELECT City, COUNT(*) AS Num_Orders_City FROM ORDERS
GROUP BY (City) ORDER BY Num_Orders_City DESC

SELECT Customer_Name, City, COUNT(*) FROM ORDERS GROUP BY ROLLUP (Customer_Name, City);
```

121 %

Results | Messages

	Customer_Name	City	(No column name)
1	Anashka	New Delhi	1
2	Anashka	NULL	1
3	Anita Desai	London	1
4	Anita Desai	NULL	1
5	Babita Ghosh	Kolkata	1
6	Babita Ghosh	NULL	1
7	Deepa Kamat	Kolkata	1
8	Deepa Kamat	NULL	1
9	Gordan	London	1
10	Gordan	NULL	1
11	Harvey Specter	Birmingham	1
12	Harvey Specter	NULL	1
13	Jim Halpert	Manchester	1
14	Jim Halpert	NULL	1
15	John L	Canberra	1
16	John L	NULL	1



SQLQuery2.sql - UN...known Hector (58))*

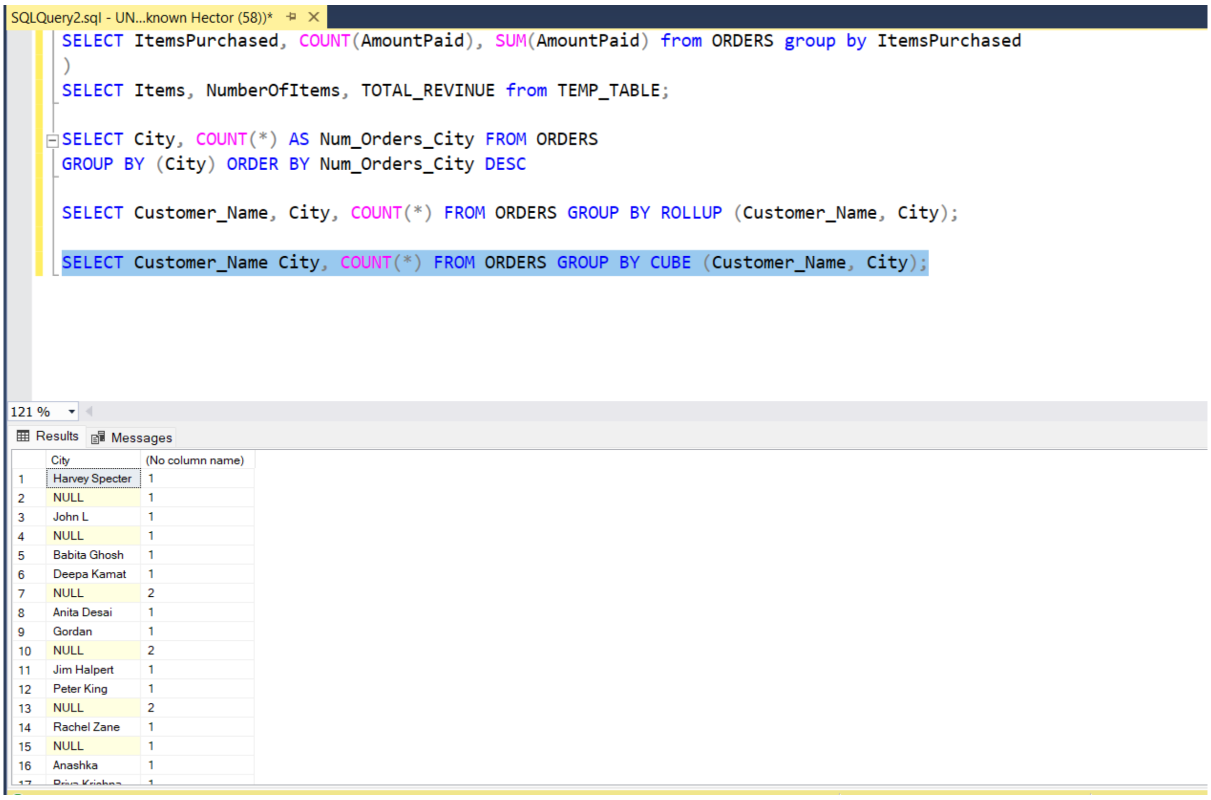
```sql
SELECT ItemsPurchased, COUNT(AmountPaid), SUM(AmountPaid) from ORDERS group by ItemsPurchased
)
SELECT Items, NumberOfItems, TOTAL_REVINUE from TEMP_TABLE;

SELECT City, COUNT(*) AS Num_Orders_City FROM ORDERS
GROUP BY (City) ORDER BY Num_Orders_City DESC

SELECT Customer_Name, City, COUNT(*) FROM ORDERS GROUP BY ROLLUP (Customer_Name, City);
```

121 %

Results | Messages

```
    Customer_Name   City         (No column name)
12  Harvey Specter  NULL         1
13  Jim Halpert     Manchester   1
14  Jim Halpert     NULL         1
15  John L          Canberra     1
16  John L          NULL         1
17  Kristen Gilbert New York     1
18  Kristen Gilbert NULL         1
19  Michael Scott   New York     1
20  Michael Scott   NULL         1
21  Peter King      Manchester   1
22  Peter King      NULL         1
23  Priya Krishna   New Delhi    1
24  Priya Krishna   NULL         1
25  Rachel Zane     Michigan     1
26  Rachel Zane     NULL         1
27  NULL            NULL         13
```

Query executed successfully. | UNKNOWNHECTOR\SQLEXPRESS (1... | UNKNO



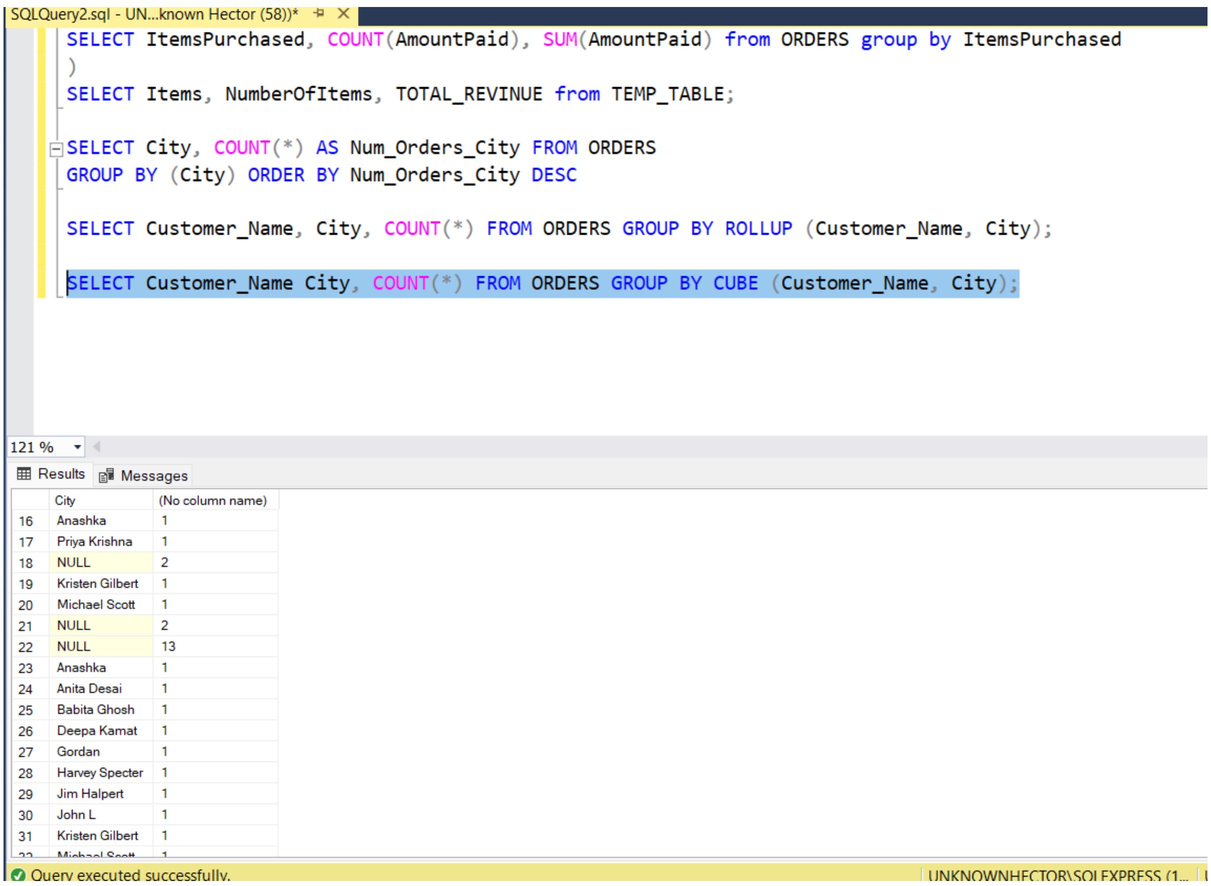
SQLQuery2.sql - UN...known Hector (58))*

```sql
SELECT ItemsPurchased, COUNT(AmountPaid), SUM(AmountPaid) from ORDERS group by ItemsPurchased
)
SELECT Items, NumberOfItems, TOTAL_REVINUE from TEMP_TABLE;

SELECT City, COUNT(*) AS Num_Orders_City FROM ORDERS
GROUP BY (City) ORDER BY Num_Orders_City DESC

SELECT Customer_Name, City, COUNT(*) FROM ORDERS GROUP BY ROLLUP (Customer_Name, City);

SELECT Customer_Name City, COUNT(*) FROM ORDERS GROUP BY CUBE (Customer_Name, City);
```

121 %

Results | Messages

```
    City            (No column name)
1   Harvey Specter  1
2   NULL            1
3   John L          1
4   NULL            1
5   Babita Ghosh    1
6   Deepa Kamat     1
7   NULL            2
8   Anita Desai     1
9   Gordan          1
10  NULL            2
11  Jim Halpert     1
12  Peter King      1
13  NULL            2
14  Rachel Zane     1
15  NULL            1
16  Anashka         1
17  Priya Krishna   1
```



SQLQuery2.sql - UN...known Hector (58))*

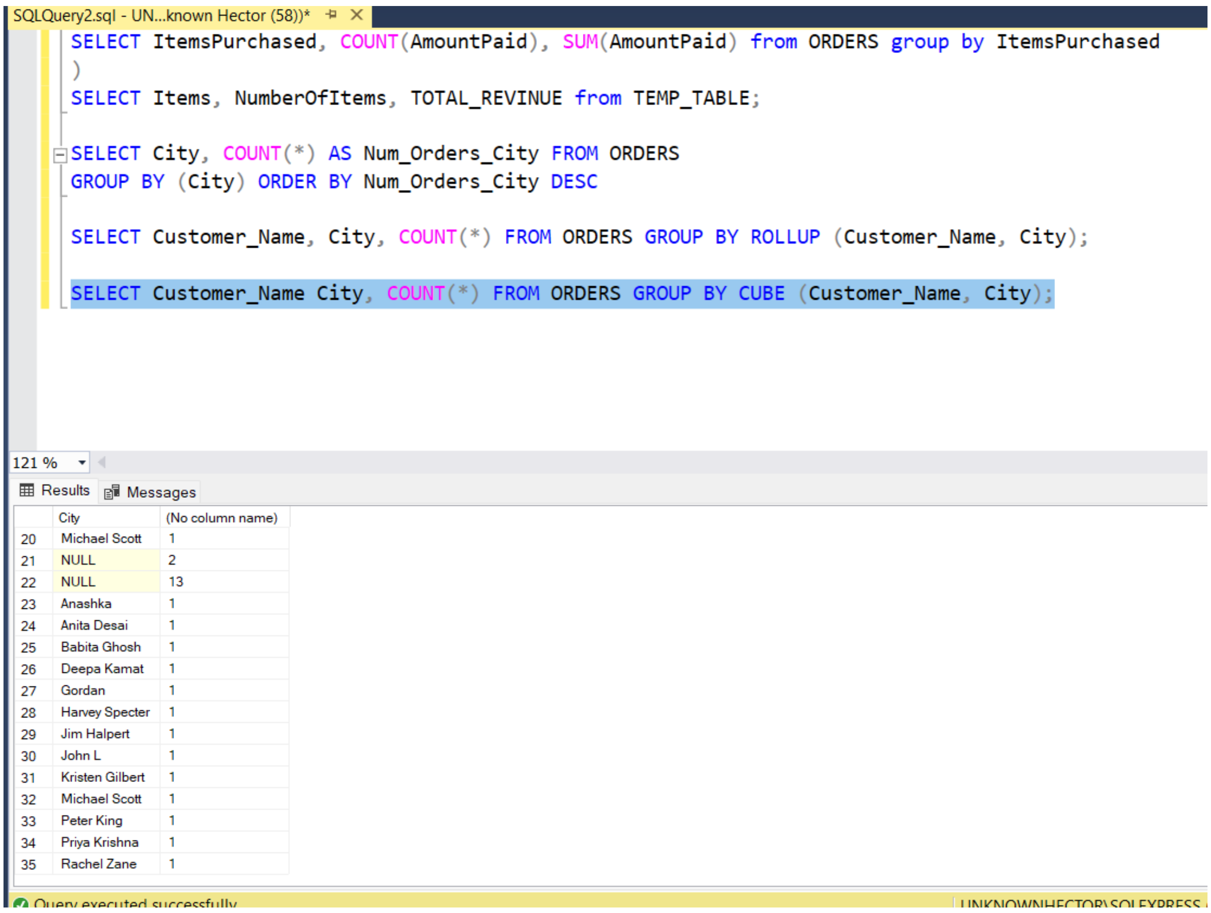
```
SELECT ItemsPurchased, COUNT(AmountPaid), SUM(AmountPaid) from ORDERS group by ItemsPurchased
)
SELECT Items, NumberOfItems, TOTAL_REVINUE from TEMP_TABLE;

SELECT City, COUNT(*) AS Num_Orders_City FROM ORDERS
GROUP BY (City) ORDER BY Num_Orders_City DESC

SELECT Customer_Name, City, COUNT(*) FROM ORDERS GROUP BY ROLLUP (Customer_Name, City);

SELECT Customer_Name City, COUNT(*) FROM ORDERS GROUP BY CUBE (Customer_Name, City);
```

121 %

Results | Messages

	City	(No column name)
16	Anashka	1
17	Priya Krishna	1
18	NULL	2
19	Kristen Gilbert	1
20	Michael Scott	1
21	NULL	2
22	NULL	13
23	Anashka	1
24	Anita Desai	1
25	Babita Ghosh	1
26	Deepa Kamat	1
27	Gordan	1
28	Harvey Specter	1
29	Jim Halpert	1
30	John L	1
31	Kristen Gilbert	1

Query executed successfully. UNKNOWNHECTOR\SQLEXPRESS (1...



SQLQuery2.sql - UN...known Hector (58))*

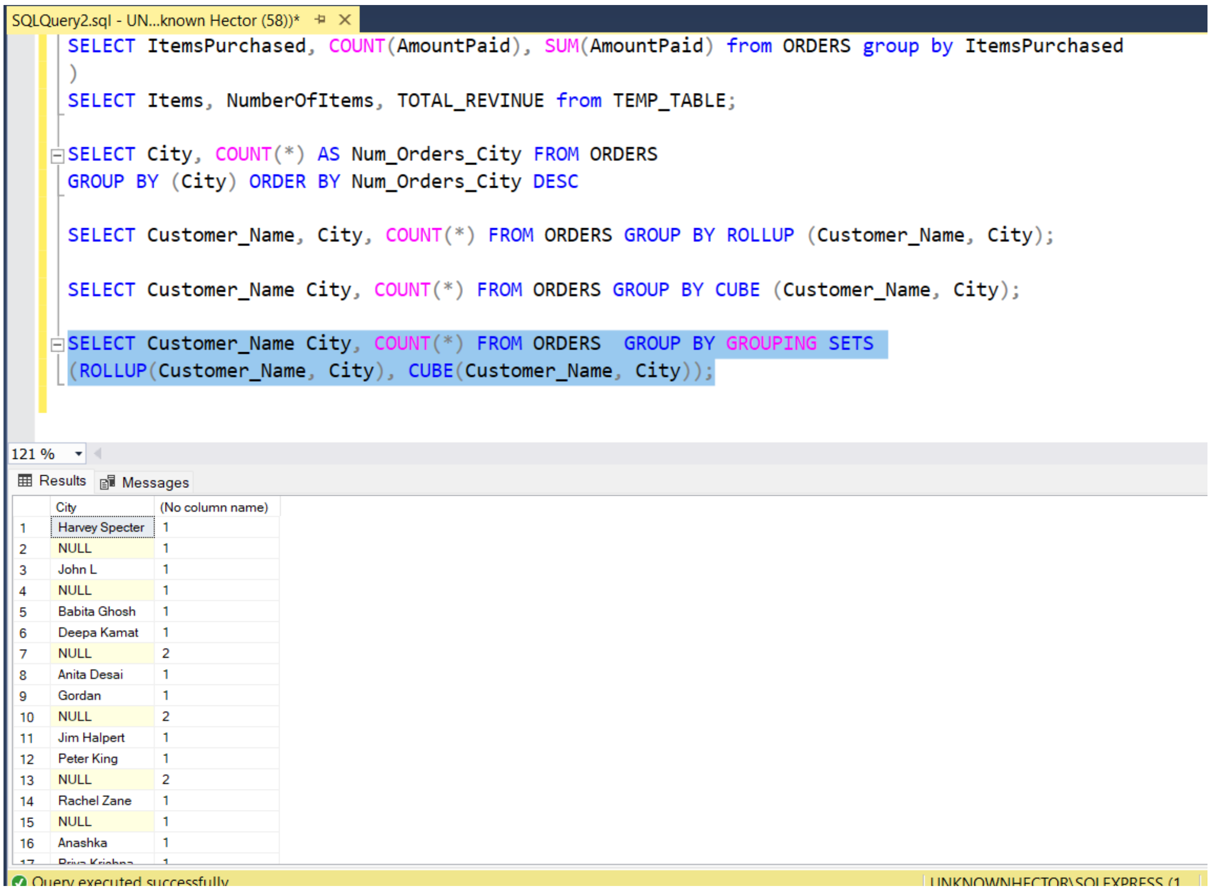
```
SELECT ItemsPurchased, COUNT(AmountPaid), SUM(AmountPaid) from ORDERS group by ItemsPurchased
)
SELECT Items, NumberOfItems, TOTAL_REVINUE from TEMP_TABLE;

SELECT City, COUNT(*) AS Num_Orders_City FROM ORDERS
GROUP BY (City) ORDER BY Num_Orders_City DESC

SELECT Customer_Name, City, COUNT(*) FROM ORDERS GROUP BY ROLLUP (Customer_Name, City);

SELECT Customer_Name City, COUNT(*) FROM ORDERS GROUP BY CUBE (Customer_Name, City);
```

121 %

Results | Messages

	City	(No column name)
20	Michael Scott	1
21	NULL	2
22	NULL	13
23	Anashka	1
24	Anita Desai	1
25	Babita Ghosh	1
26	Deepa Kamat	1
27	Gordan	1
28	Harvey Specter	1
29	Jim Halpert	1
30	John L	1
31	Kristen Gilbert	1
32	Michael Scott	1
33	Peter King	1
34	Priya Krishna	1
35	Rachel Zane	1

Query executed successfully. UNKNOWNHECTOR\SQLEXPRESS



SQLQuery2.sql - UN...known Hector (58))*

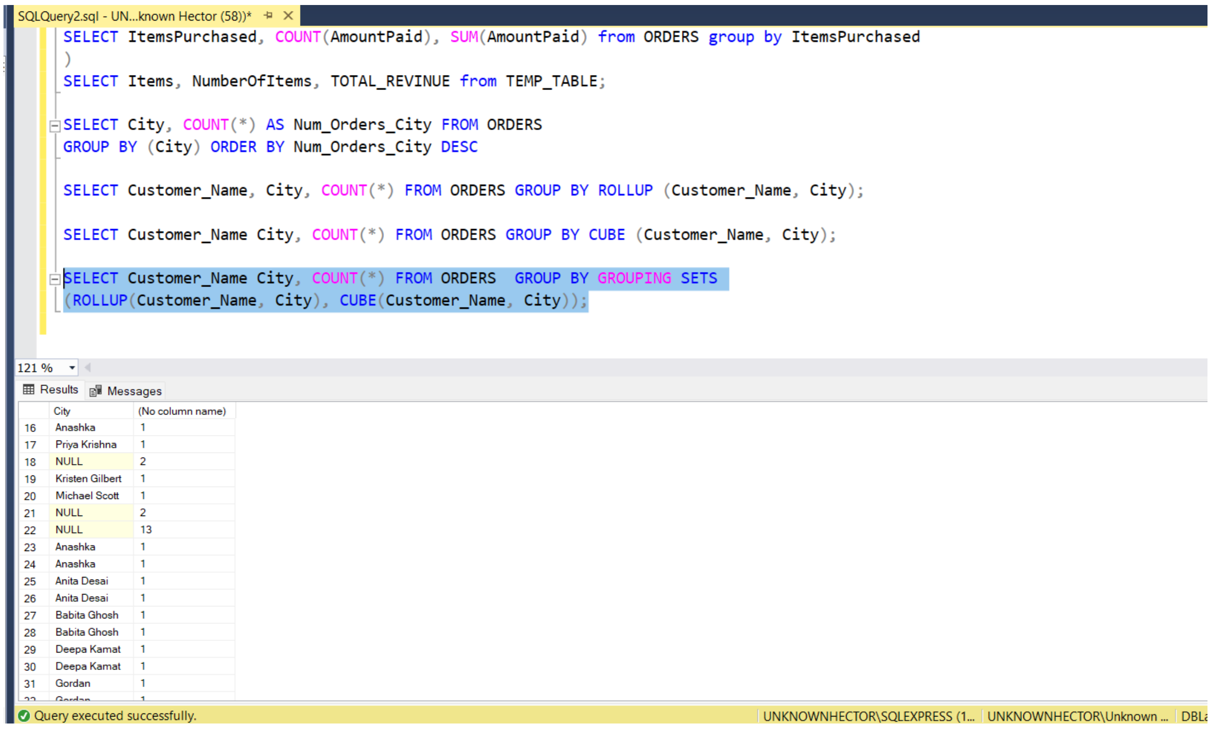
```sql
SELECT ItemsPurchased, COUNT(AmountPaid), SUM(AmountPaid) from ORDERS group by ItemsPurchased
)
SELECT Items, NumberOfItems, TOTAL_REVINUE from TEMP_TABLE;

SELECT City, COUNT(*) AS Num_Orders_City FROM ORDERS
GROUP BY (City) ORDER BY Num_Orders_City DESC

SELECT Customer_Name, City, COUNT(*) FROM ORDERS GROUP BY ROLLUP (Customer_Name, City);

SELECT Customer_Name City, COUNT(*) FROM ORDERS GROUP BY CUBE (Customer_Name, City);

SELECT Customer_Name City, COUNT(*) FROM ORDERS  GROUP BY GROUPING SETS
(ROLLUP(Customer_Name, City), CUBE(Customer_Name, City));
```

121 %

Results | Messages

	City	(No column name)
1	Harvey Specter	1
2	NULL	1
3	John L	1
4	NULL	1
5	Babita Ghosh	1
6	Deepa Kamat	1
7	NULL	2
8	Anita Desai	1
9	Gordan	1
10	NULL	2
11	Jim Halpert	1
12	Peter King	1
13	NULL	2
14	Rachel Zane	1
15	NULL	1
16	Anashka	1

Query executed successfully | UNKNOWNHECTOR\SQLEXPRESS (1



SQLQuery2.sql - UN...known Hector (58))*

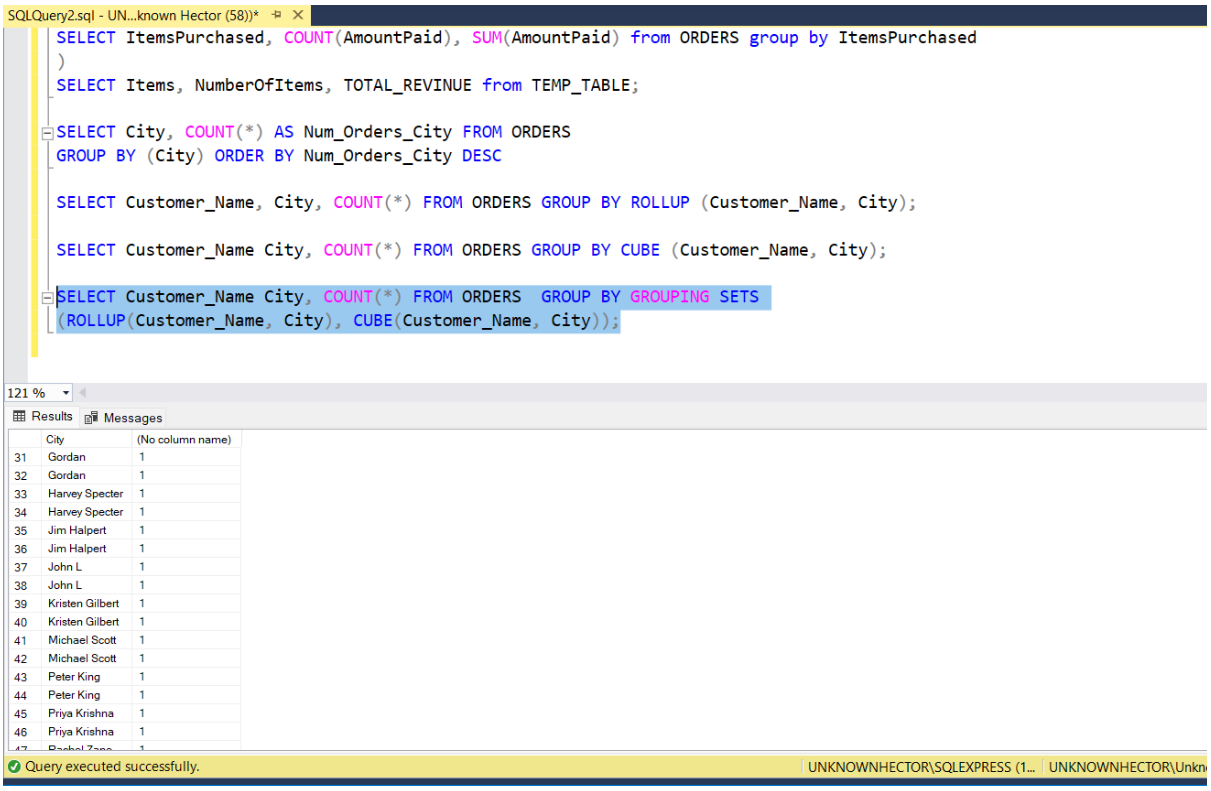
```sql
SELECT ItemsPurchased, COUNT(AmountPaid), SUM(AmountPaid) from ORDERS group by ItemsPurchased
)
SELECT Items, NumberOfItems, TOTAL_REVINUE from TEMP_TABLE;

SELECT City, COUNT(*) AS Num_Orders_City FROM ORDERS
GROUP BY (City) ORDER BY Num_Orders_City DESC

SELECT Customer_Name, City, COUNT(*) FROM ORDERS GROUP BY ROLLUP (Customer_Name, City);

SELECT Customer_Name City, COUNT(*) FROM ORDERS GROUP BY CUBE (Customer_Name, City);

SELECT Customer_Name City, COUNT(*) FROM ORDERS  GROUP BY GROUPING SETS
(ROLLUP(Customer_Name, City), CUBE(Customer_Name, City));
```

121 %

Results | Messages

	City	(No column name)
16	Anashka	1
17	Priya Krishna	1
18	NULL	2
19	Kristen Gilbert	1
20	Michael Scott	1
21	NULL	2
22	NULL	13
23	Anashka	1
24	Anashka	1
25	Anita Desai	1
26	Anita Desai	1
27	Babita Ghosh	1
28	Babita Ghosh	1
29	Deepa Kamat	1
30	Deepa Kamat	1
31	Gordan	1

Query executed successfully. | UNKNOWNHECTOR\SQLEXPRESS (1... | UNKNOWNHECTOR\Unknown ... | DBL



SQLQuery2.sql - UN...known Hector (58))*

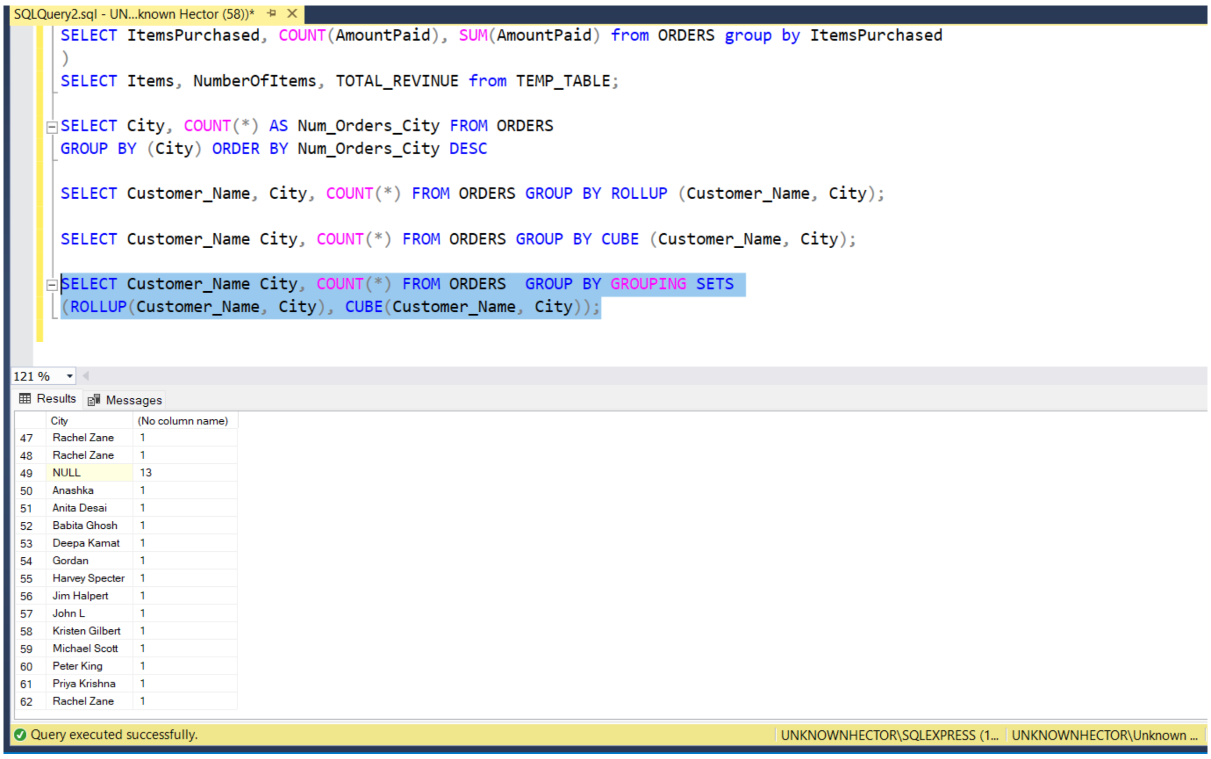
```sql
SELECT ItemsPurchased, COUNT(AmountPaid), SUM(AmountPaid) from ORDERS group by ItemsPurchased
)
SELECT Items, NumberOfItems, TOTAL_REVINUE from TEMP_TABLE;

SELECT City, COUNT(*) AS Num_Orders_City FROM ORDERS
GROUP BY (City) ORDER BY Num_Orders_City DESC

SELECT Customer_Name, City, COUNT(*) FROM ORDERS GROUP BY ROLLUP (Customer_Name, City);

SELECT Customer_Name City, COUNT(*) FROM ORDERS GROUP BY CUBE (Customer_Name, City);

SELECT Customer_Name City, COUNT(*) FROM ORDERS  GROUP BY GROUPING SETS
(ROLLUP(Customer_Name, City), CUBE(Customer_Name, City));
```

121 %

Results | Messages

	City	(No column name)
31	Gordan	1
32	Gordan	1
33	Harvey Specter	1
34	Harvey Specter	1
35	Jim Halpert	1
36	Jim Halpert	1
37	John L	1
38	John L	1
39	Kristen Gilbert	1
40	Kristen Gilbert	1
41	Michael Scott	1
42	Michael Scott	1
43	Peter King	1
44	Peter King	1
45	Priya Krishna	1
46	Priya Krishna	1
47	Rachel Zane	1

Query executed successfully. | UNKNOWNHECTOR\SQLEXPRESS (1... | UNKNOWNHECTOR\Unkn



SQLQuery2.sql - UN...known Hector (58))*

```sql
SELECT ItemsPurchased, COUNT(AmountPaid), SUM(AmountPaid) from ORDERS group by ItemsPurchased
)
SELECT Items, NumberOfItems, TOTAL_REVINUE from TEMP_TABLE;

SELECT City, COUNT(*) AS Num_Orders_City FROM ORDERS
GROUP BY (City) ORDER BY Num_Orders_City DESC

SELECT Customer_Name, City, COUNT(*) FROM ORDERS GROUP BY ROLLUP (Customer_Name, City);

SELECT Customer_Name City, COUNT(*) FROM ORDERS GROUP BY CUBE (Customer_Name, City);

SELECT Customer_Name City, COUNT(*) FROM ORDERS  GROUP BY GROUPING SETS
(ROLLUP(Customer_Name, City), CUBE(Customer_Name, City));
```

121 %

Results | Messages

	City	(No column name)
47	Rachel Zane	1
48	Rachel Zane	1
49	NULL	13
50	Anashka	1
51	Anita Desai	1
52	Babita Ghosh	1
53	Deepa Kamat	1
54	Gordan	1
55	Harvey Specter	1
56	Jim Halpert	1
57	John L	1
58	Kristen Gilbert	1
59	Michael Scott	1
60	Peter King	1
61	Priya Krishna	1
62	Rachel Zane	1

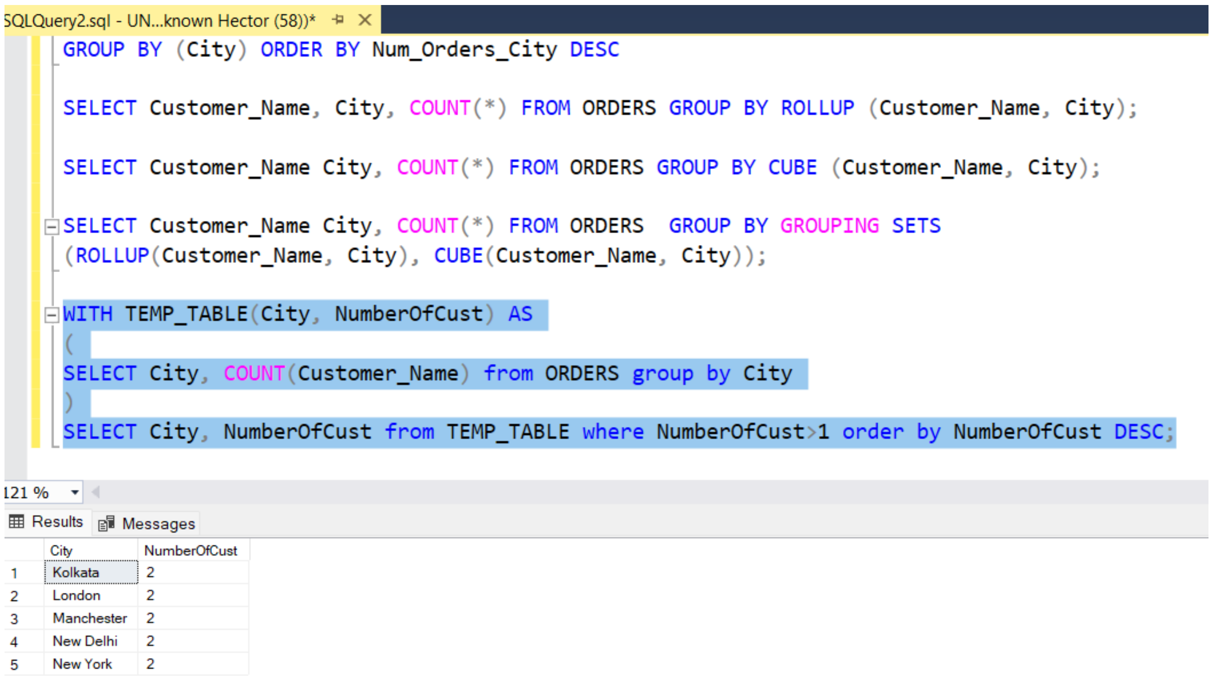
Query executed successfully. | UNKNOWNHECTOR\SQLEXPRESS (1... | UNKNOWNHECTOR\Unknown ...

6. Find the number of customers in each city sorted high to low (Only include cities with more than 1 customers)

Program:-

```
WITH TEMP_TABLE(City, NumberOfCust) AS
(
SELECT City, COUNT(Customer_Name) from ORDERS group by City
)
SELECT City, NumberOfCust from TEMP_TABLE where NumberOfCust>1 order by NumberOfCust
DESC;
```

Output


SQLQuery2.sql - UN...known Hector (58))*

```
GROUP BY (City) ORDER BY Num_Orders_City DESC

SELECT Customer_Name, City, COUNT(*) FROM ORDERS GROUP BY ROLLUP (Customer_Name, City);

SELECT Customer_Name City, COUNT(*) FROM ORDERS GROUP BY CUBE (Customer_Name, City);

SELECT Customer_Name City, COUNT(*) FROM ORDERS  GROUP BY GROUPING SETS
(ROLLUP(Customer_Name, City), CUBE(Customer_Name, City));

WITH TEMP_TABLE(City, NumberOfCust) AS
(
SELECT City, COUNT(Customer_Name) from ORDERS group by City
)
SELECT City, NumberOfCust from TEMP_TABLE where NumberOfCust>1 order by NumberOfCust DESC;
```

121 %

Results | Messages

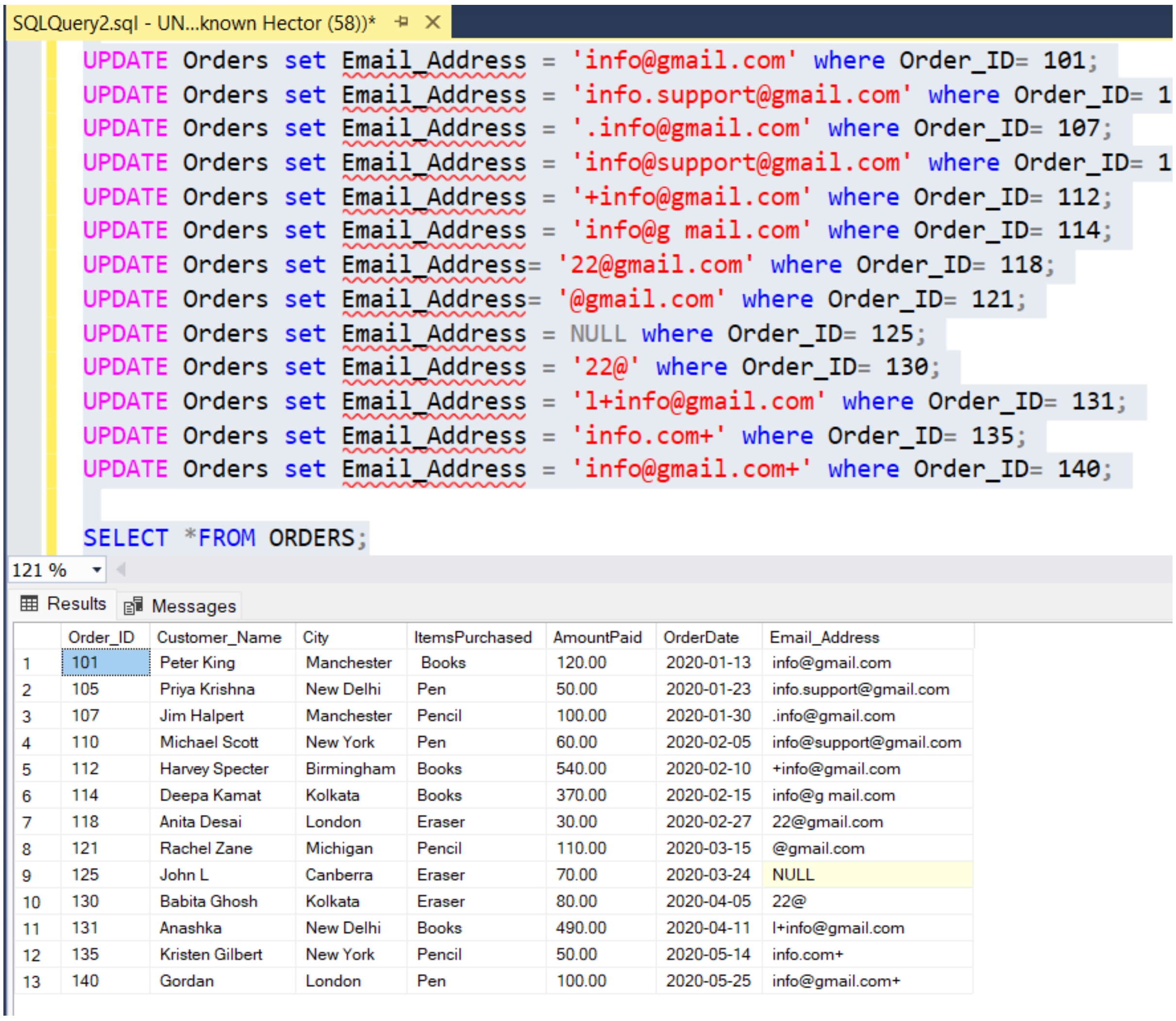
	City	NumberOfCust
1	Kolkata	2
2	London	2
3	Manchester	2
4	New Delhi	2
5	New York	2

7. Add a new column email address in table with contents

Program:-

```
ALTER TABLE ORDERS
ADD Email_Address varchar(50);

UPDATE Orders set Email_Address = 'info@gmail.com' where Order_ID= 101;
UPDATE Orders set Email_Address = 'info.support@gmail.com' where Order_ID= 105;
UPDATE Orders set Email_Address = '.info@gmail.com' where Order_ID= 107;
UPDATE Orders set Email_Address = 'info@support@gmail.com' where Order_ID= 110;
UPDATE Orders set Email_Address = '+info@gmail.com' where Order_ID= 112;
UPDATE Orders set Email_Address = 'info@g mail.com' where Order_ID= 114;
UPDATE Orders set Email_Address= '22@gmail.com' where Order_ID= 118;
UPDATE Orders set Email_Address= '@gmail.com' where Order_ID= 121;
UPDATE Orders set Email_Address = NULL where Order_ID= 125;
UPDATE Orders set Email_Address = '22@' where Order_ID= 130;
UPDATE Orders set Email_Address = '1+info@gmail.com' where Order_ID= 131;
UPDATE Orders set Email_Address = 'info.com+' where Order_ID= 135;
UPDATE Orders set Email_Address = 'info@gmail.com+' where Order_ID= 140;

SELECT *FROM ORDERS;
```

Output



SQLQuery2.sql - UN...known Hector (58))*

```
UPDATE Orders set Email_Address = 'info@gmail.com' where Order_ID= 101;
UPDATE Orders set Email_Address = 'info.support@gmail.com' where Order_ID= 1
UPDATE Orders set Email_Address = '.info@gmail.com' where Order_ID= 107;
UPDATE Orders set Email_Address = 'info@support@gmail.com' where Order_ID= 1
UPDATE Orders set Email_Address = '+info@gmail.com' where Order_ID= 112;
UPDATE Orders set Email_Address = 'info@g mail.com' where Order_ID= 114;
UPDATE Orders set Email_Address= '22@gmail.com' where Order_ID= 118;
UPDATE Orders set Email_Address= '@gmail.com' where Order_ID= 121;
UPDATE Orders set Email_Address = NULL where Order_ID= 125;
UPDATE Orders set Email_Address = '22@' where Order_ID= 130;
UPDATE Orders set Email_Address = 'l+info@gmail.com' where Order_ID= 131;
UPDATE Orders set Email_Address = 'info.com+' where Order_ID= 135;
UPDATE Orders set Email_Address = 'info@gmail.com+' where Order_ID= 140;

SELECT *FROM ORDERS;
```

121 %

Results | Messages

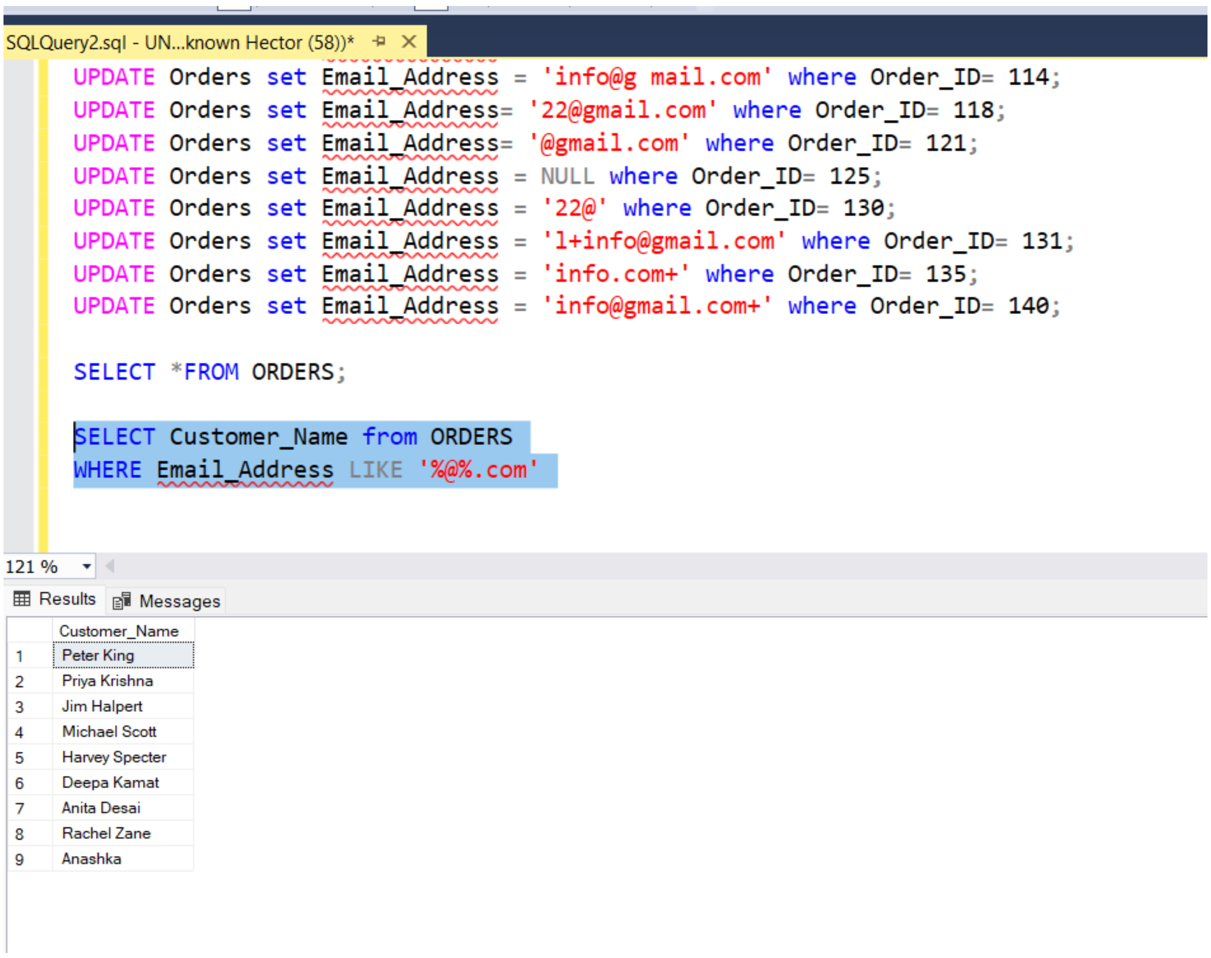
	Order_ID	Customer_Name	City	ItemsPurchased	AmountPaid	OrderDate	Email_Address
1	101	Peter King	Manchester	Books	120.00	2020-01-13	info@gmail.com
2	105	Priya Krishna	New Delhi	Pen	50.00	2020-01-23	info.support@gmail.com
3	107	Jim Halpert	Manchester	Pencil	100.00	2020-01-30	.info@gmail.com
4	110	Michael Scott	New York	Pen	60.00	2020-02-05	info@support@gmail.com
5	112	Harvey Specter	Birmingham	Books	540.00	2020-02-10	+info@gmail.com
6	114	Deepa Kamat	Kolkata	Books	370.00	2020-02-15	info@g mail.com
7	118	Anita Desai	London	Eraser	30.00	2020-02-27	22@gmail.com
8	121	Rachel Zane	Michigan	Pencil	110.00	2020-03-15	@gmail.com
9	125	John L	Canberra	Eraser	70.00	2020-03-24	NULL
10	130	Babita Ghosh	Kolkata	Eraser	80.00	2020-04-05	22@
11	131	Anashka	New Delhi	Books	490.00	2020-04-11	l+info@gmail.com
12	135	Kristen Gilbert	New York	Pencil	50.00	2020-05-14	info.com+
13	140	Gordan	London	Pen	100.00	2020-05-25	info@gmail.com+

8. Display the customer name with valid email address

Program:-

```
SELECT Customer_Name from ORDERS
WHERE Email_Address LIKE '%@%.com'
```

Output



```sql
UPDATE Orders set Email_Address = 'info@g mail.com' where Order_ID= 114;
UPDATE Orders set Email_Address= '22@gmail.com' where Order_ID= 118;
UPDATE Orders set Email_Address= '@gmail.com' where Order_ID= 121;
UPDATE Orders set Email_Address = NULL where Order_ID= 125;
UPDATE Orders set Email_Address = '22@' where Order_ID= 130;
UPDATE Orders set Email_Address = '1+info@gmail.com' where Order_ID= 131;
UPDATE Orders set Email_Address = 'info.com+' where Order_ID= 135;
UPDATE Orders set Email_Address = 'info@gmail.com+' where Order_ID= 140;

SELECT *FROM ORDERS;

SELECT Customer_Name from ORDERS
WHERE Email_Address LIKE '%@%.com'
```

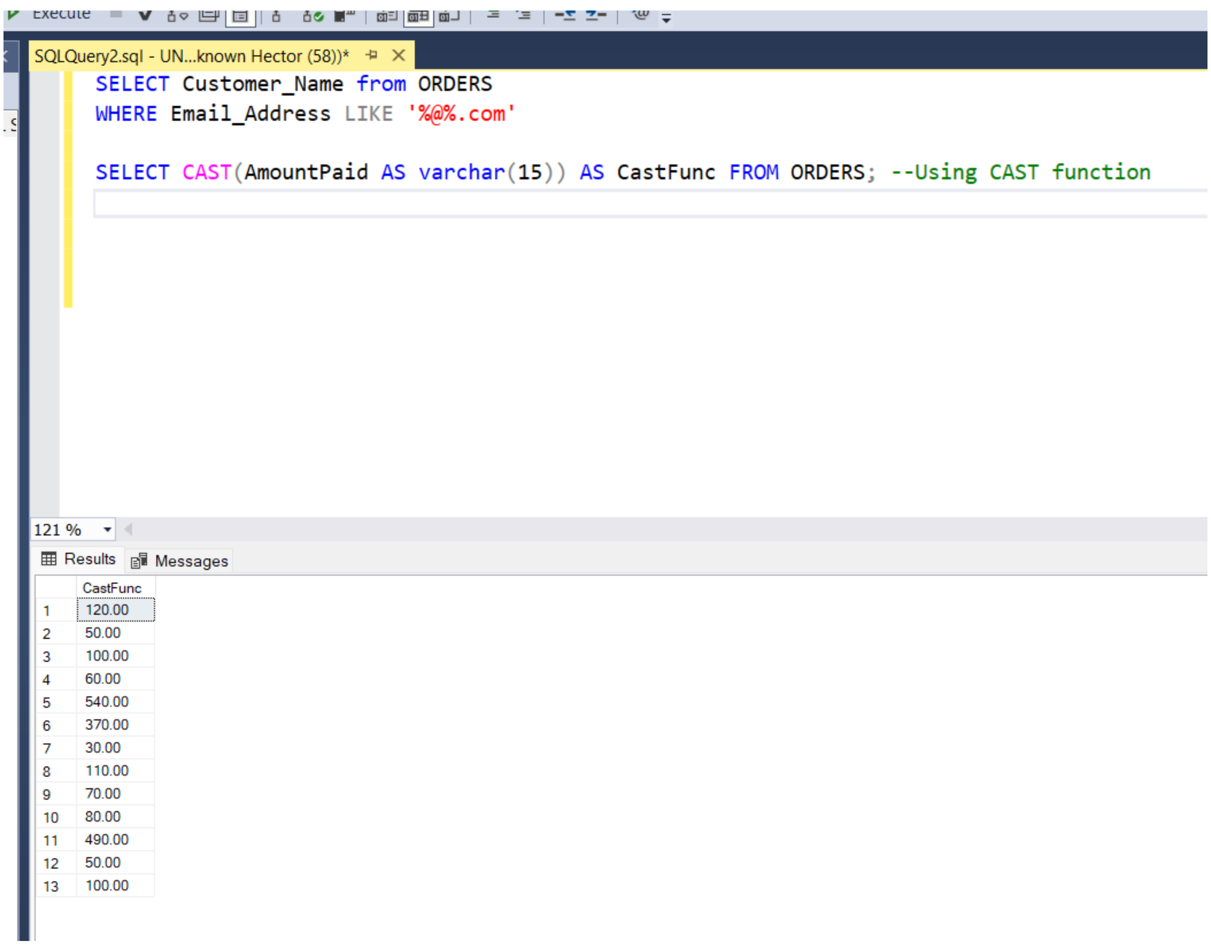
	Customer_Name
1	Peter King
2	Priya Krishna
3	Jim Halpert
4	Michael Scott
5	Harvey Specter
6	Deepa Kamat
7	Anita Desai
8	Rachel Zane
9	Anashka

9. Convert the datatype of AmountPaid from int to varchar using CAST, CONVERT functions

Program:-

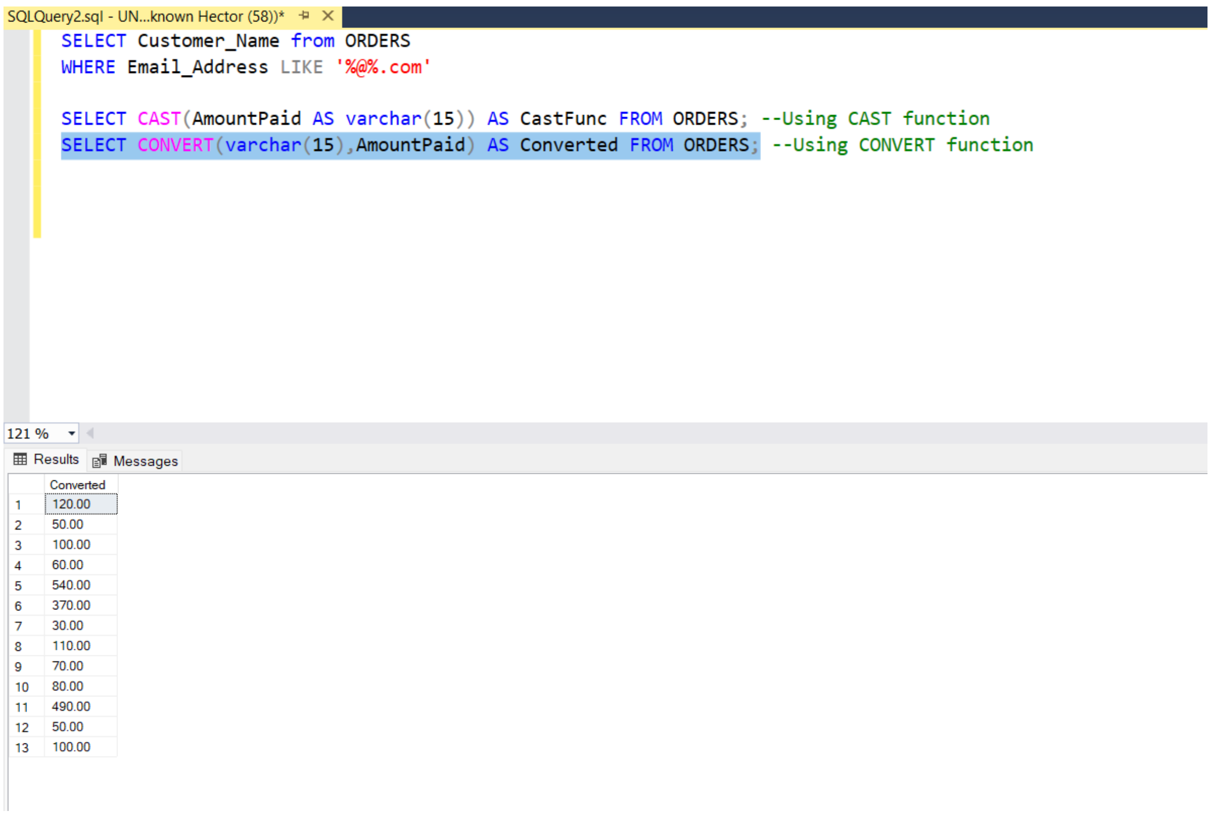
```sql
SELECT CAST(AmountPaid AS varchar(15)) AS CastFunc FROM ORDERS; --Using CAST function
SELECT CONVERT(varchar(15),AmountPaid) AS Converted FROM ORDERS; --Using CONVERT
function
```

Output



```
SELECT Customer_Name from ORDERS
WHERE Email_Address LIKE '%@%.com'

SELECT CAST(AmountPaid AS varchar(15)) AS CastFunc FROM ORDERS; --Using CAST function
```

```
   CastFunc
1  120.00
2  50.00
3  100.00
4  60.00
5  540.00
6  370.00
7  30.00
8  110.00
9  70.00
10 80.00
11 490.00
12 50.00
13 100.00
```



```
SELECT Customer_Name from ORDERS
WHERE Email_Address LIKE '%@%.com'

SELECT CAST(AmountPaid AS varchar(15)) AS CastFunc FROM ORDERS; --Using CAST function
SELECT CONVERT(varchar(15),AmountPaid) AS Converted FROM ORDERS; --Using CONVERT function
```

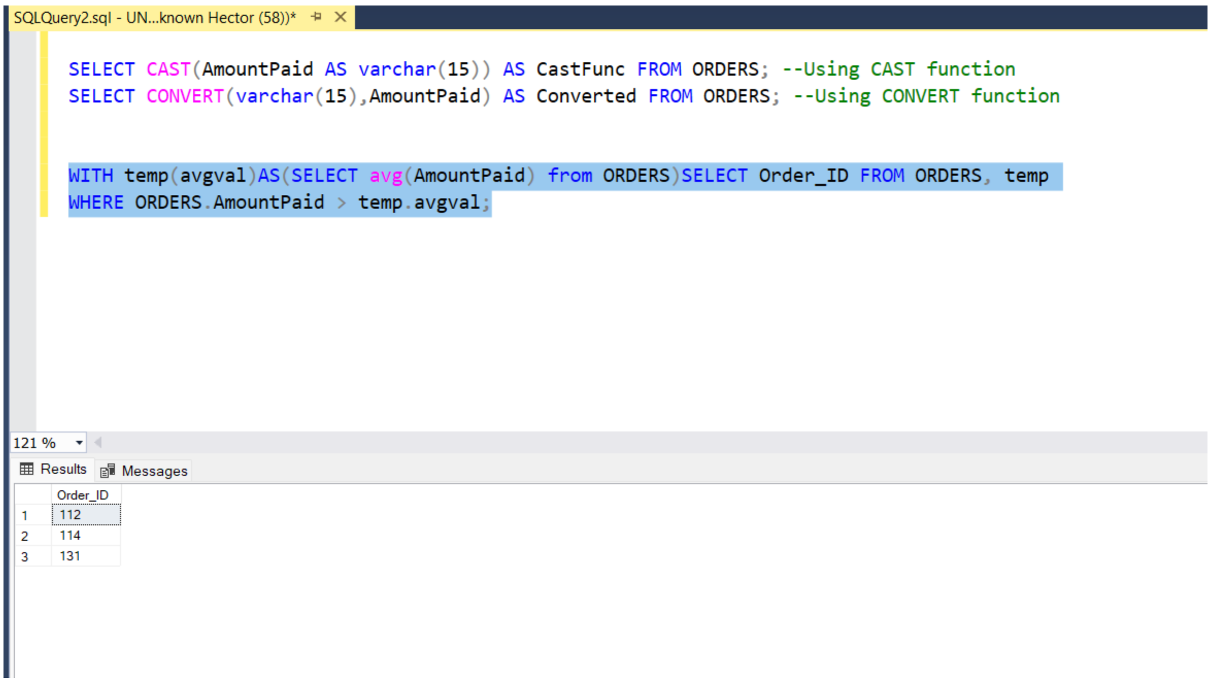
```
   Converted
1  120.00
2  50.00
3  100.00
4  60.00
5  540.00
6  370.00
7  30.00
8  110.00
9  70.00
10 80.00
11 490.00
12 50.00
13 100.00
```

10. Find all the orders in which amount paid is more than the average amount paid from all the orders

Program:-

```
WITH temp(avgval)AS(SELECT avg(AmountPaid) from ORDERS)SELECT Order_ID FROM ORDERS,
temp
WHERE ORDERS.AmountPaid > temp.avgval;
```

Output



SQLQuery2.sql - UN...known Hector (58))*

```
SELECT CAST(AmountPaid AS varchar(15)) AS CastFunc FROM ORDERS; --Using CAST function
SELECT CONVERT(varchar(15),AmountPaid) AS Converted FROM ORDERS; --Using CONVERT function


WITH temp(avgval)AS(SELECT avg(AmountPaid) from ORDERS)SELECT Order_ID FROM ORDERS, temp
WHERE ORDERS.AmountPaid > temp.avgval;
```

121 %

Results | Messages

	Order_ID
1	112
2	114
3	131

All Program

```
CREATE DATABASE DBLab5
USE DBLab5

CREATE TABLE ORDERS
(Order_ID int primary key,
Customer_Name varchar(25),
City varchar(15),
ItemsPurchased varchar(10),
AmountPaid money,
OrderDate date,);

INSERT INTO ORDERS VALUES(101, 'Peter King','Manchester',' Books' ,120, '2020-01-13');
INSERT INTO ORDERS VALUES(105, 'Priya Krishna', 'New Delhi', 'Pen', 50, '2020-01-23');
INSERT INTO ORDERS VALUES(107, 'Jim Halpert', 'Manchester', 'Pencil' ,100, '2020-01-
30');
INSERT INTO ORDERS VALUES(110, 'Michael Scott' ,'New York' ,'Pen', 60, '2020-02-05');
INSERT INTO ORDERS VALUES(112, 'Harvey Specter' ,'Birmingham', 'Books' ,540, '2020-02-
10');
INSERT INTO ORDERS VALUES(114, 'Deepa Kamat','Kolkata', 'Books' ,370, '2020-02-15');
INSERT INTO ORDERS VALUES(118, 'Anita Desai' ,'London', 'Eraser', 30, '2020-02-27');
INSERT INTO ORDERS VALUES(121, 'Rachel Zane' ,'Michigan', 'Pencil' ,110, '2020-03-
15');
INSERT INTO ORDERS VALUES(125 ,'John L' ,'Canberra', 'Eraser' ,70 ,'2020-03-24');
INSERT INTO ORDERS VALUES(130, 'Babita Ghosh' ,'Kolkata' ,'Eraser', 80, '2020-04-05');
INSERT INTO ORDERS VALUES(131, 'Anashka' ,'New Delhi' ,'Books' ,490, '2020-04-11');
INSERT INTO ORDERS VALUES(135, 'Kristen Gilbert','New York', 'Pencil' ,50, '2020-05-
14');
INSERT INTO ORDERS VALUES(140, 'Gordan' ,'London', 'Pen', 100, '2020-05-25');

SELECT *FROM ORDERS

WITH TEMP_TABLE(City,TOTAL_REVINUE) AS (SELECT City,SUM(AmountPaid)
FROM ORDERS GROUP BY(City))SELECT City,TOTAL_REVINUE FROM TEMP_TABLE;

SELECT Order_ID,MONTH(OrderDate)FROM ORDERS;

WITH TEMP_TABLE(Items, NumberOfItems, TOTAL_REVINUE) AS
(
SELECT ItemsPurchased, COUNT(AmountPaid), SUM(AmountPaid) from ORDERS group by
ItemsPurchased
)
SELECT Items, NumberOfItems, TOTAL_REVINUE from TEMP_TABLE;

SELECT City, COUNT(*) AS Num_Orders_City FROM ORDERS
GROUP BY (City) ORDER BY Num_Orders_City DESC

SELECT Customer_Name, City, COUNT(*) FROM ORDERS GROUP BY ROLLUP (Customer_Name,
City);

SELECT Customer_Name City, COUNT(*) FROM ORDERS GROUP BY CUBE (Customer_Name, City);

SELECT Customer_Name City, COUNT(*) FROM ORDERS  GROUP BY GROUPING SETS
(ROLLUP(Customer_Name, City), CUBE(Customer_Name, City));

WITH TEMP_TABLE(City, NumberOfCust) AS
(
SELECT City, COUNT(Customer_Name) from ORDERS group by City
```

```sql
)
SELECT City, NumberOfCust from TEMP_TABLE where NumberOfCust>1 order by NumberOfCust
DESC;

ALTER TABLE ORDERS
ADD Email_Address varchar(50);

UPDATE Orders set Email_Address = 'info@gmail.com' where Order_ID= 101;
UPDATE Orders set Email_Address = 'info.support@gmail.com' where Order_ID= 105;
UPDATE Orders set Email_Address = '.info@gmail.com' where Order_ID= 107;
UPDATE Orders set Email_Address = 'info@support@gmail.com' where Order_ID= 110;
UPDATE Orders set Email_Address = '+info@gmail.com' where Order_ID= 112;
UPDATE Orders set Email_Address = 'info@g mail.com' where Order_ID= 114;
UPDATE Orders set Email_Address= '22@gmail.com' where Order_ID= 118;
UPDATE Orders set Email_Address= '@gmail.com' where Order_ID= 121;
UPDATE Orders set Email_Address = NULL where Order_ID= 125;
UPDATE Orders set Email_Address = '22@' where Order_ID= 130;
UPDATE Orders set Email_Address = '1+info@gmail.com' where Order_ID= 131;
UPDATE Orders set Email_Address = 'info.com+' where Order_ID= 135;
UPDATE Orders set Email_Address = 'info@gmail.com+' where Order_ID= 140;

SELECT *FROM ORDERS;

SELECT Customer_Name from ORDERS
WHERE Email_Address LIKE '%@%.com'

SELECT CAST(AmountPaid AS varchar(15)) AS CastFunc FROM ORDERS; --Using CAST function
SELECT CONVERT(varchar(15),AmountPaid) AS Converted FROM ORDERS; --Using CONVERT
function

WITH temp(avgval)AS(SELECT avg(AmountPaid) from ORDERS)SELECT Order_ID FROM ORDERS,
temp
WHERE ORDERS.AmountPaid > temp.avgval;
```