Data Analytics SQL Mini-Project-2

Insight number 1 –

--MAXIMUM AREA

Print broker title, type and get maximum area for the property filter only for ‘condo for sale’ type and order them by desc on broker title column?

```
2 •  select * from nyhouse
3 ⊠  SELECT BROKERTITLE,TYPE,MAX(PROPERTYSQFT)as MAXIMUM from nyhouse
4    where TYPE ='CONDO FOR SALE' GROUP BY 1,2 ORDER BY 1 DESC;
5
6
7
8
9
10
11
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

BROKERTITLE	TYPE	MAXIMUM
NoBroker	Condo for sale	2184
Brokered by YourHomeSold Guarantee Realty	Condo for sale	1102
Brokered by Your Home Sold Guaranteed Realty...	Condo for sale	400
Brokered by Wonica REALTORS & Appraisers	Condo for sale	1312
Brokered by Winzone Realty Inc	Condo for sale	2184
Brokered by William Raveis New York City	Condo for sale	1220
Brokered by WIESNER ROCIO D	Condo for sale	825
Brokered by Vylla Home	Condo for sale	1397
Brokered by United Real Estate Fortune	Condo for sale	750
Brokered by UNITED NATIONAL REALTY	Condo for sale	1440
Brokered by UbiQ NY Ltd	Condo for sale	1309

Explanation – to print the result I used SELECT then column names from table (brokertitle,type)then I used MAX Aggregation function to get maximum property area .then I filter only for particular type (‘condo for sale’) then I group them and then I order them by desc.

Insight number 2 –

--AVERAGE PRICE

Print type and average price for ‘house for sale’ type from the table?

Explanation- I want to print my result in 1st column as type and in 2nd column I want avg_price. so I select accordingly then to get average price. I used AVERAGE aggregation on price table.

```
1
2 •  SELECT type,avg(Price)as avg_price from nyhouse
3    where TYPE ='house for sale' GROUP BY 1;
4
5
6
7
8
9
10
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

type	avg_price
House for sale	3684215.5208

Insight number 3 –

--price greater than 1000000

Print type , number of beds and find total_price using (price) from table .and sort the price which is have greater than 1000000. and sort the order by desc order on beds and find top 5?

Explanation- in 1st column I print the type column and in 2nd column print no of beds then I used SUM to calculate total price. I filter to only which total_price is greater than 1000000. To get this result I use HAVING . then I want to see where the beds are max so I sort the result in desc order.

```
1
2
3 •  SELECT type,beds,sum(Price)as total_price from nyhouse
4    GROUP BY 1,2
5    having total_price > 1000000
6    order by beds desc
7    limit 5;
8
9
10
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

type	beds	total_price
Multi-family home for sale	50	11000000
Multi-family home for sale	42	10700000
Multi-family home for sale	40	5980000
Multi-family home for sale	36	3099000
Multi-family home for sale	35	4380000

Insight number 4 –

--Vowels

Print the state name which start with vowels?

Explanation – to get result I use state column in table. Then using LIKE function I got the result.

```
3 •  SELECT STATE from nyhouse
4    where STATE like 'A%' OR
5    STATE like 'E%' OR
6    STATE like 'I%' OR
7    STATE like 'O%' OR
8    STATE like 'U%' ;
9
10
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

STATE
Elmhurst, NY 11373
Ozone Park, NY 11417
Ozone Park, NY 11417
Astoria, NY 11103
East Elmhurst, NY 11369
Elmhurst, NY 11373
Ozone Park, NY 11417
Ozone Park, NY 11417
Elmhurst, NY 11373
East Elmhurst, NY 11369
Ozone Park, NY 11417

Insight number 5 –

--maximum baths

Print the address where maximum bath are present and order it by desc on bath column?

Explanation- to get result I have used max aggregation function on bath column.

```
1
2 •  select address,max(bath)as max_bath from nyhouse
3    group by 1
4    order by 2 desc;
5
6
7
8
9
10
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

address	max_bath
8820 Avenue J	50
646-662 Port Richmond Ave	43
8001 New Utrecht Ave	32
3520 Newkirk Ave Unit 24	24
1319 Newkirk Ave	20
76 Irving Pl	20
35-54 95th St	20
2245 Creston Ave	17
177 Benedict Rd	16
8699 Bay Pkwy Unit 16	16
5206 6th Ave	16

Result 54

Insight number 6 –

--sub locality classification

Categorize the sub locality in 3 types

When locality ‘New York’ then sub locality ‘Manhattan’

When locality ‘the Bronx’ then sub locality ‘east Bronx’

Else others print the result in 1st column name contain tag 2nd column as state

Explanation – using when case I got the result.

```
1
2  select case
3  when locality in ('new york') then 'manhattan'
4  when locality in ('the bronx') then 'east bronx'
5  else 'others' end as tag,state from nyhouse
6  group by 1,2
7  order by 1;
8
9
10
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

tag	state
east bronx	Bronx, NY 10463
east bronx	Bronx, NY 10473
manhattan	Arverne, NY 11692
manhattan	Astoria, NY 11103
manhattan	Astoria, NY 11105
manhattan	Bayside, NY 11360
manhattan	Bayside, NY 11361
manhattan	Bayside, NY 11364
manhattan	Bedford Stuyvesant, NY 11206
manhattan	Bedford Stuyvesant, NY 11216
manhattan	Bedford Stuyvesant, NY 11221

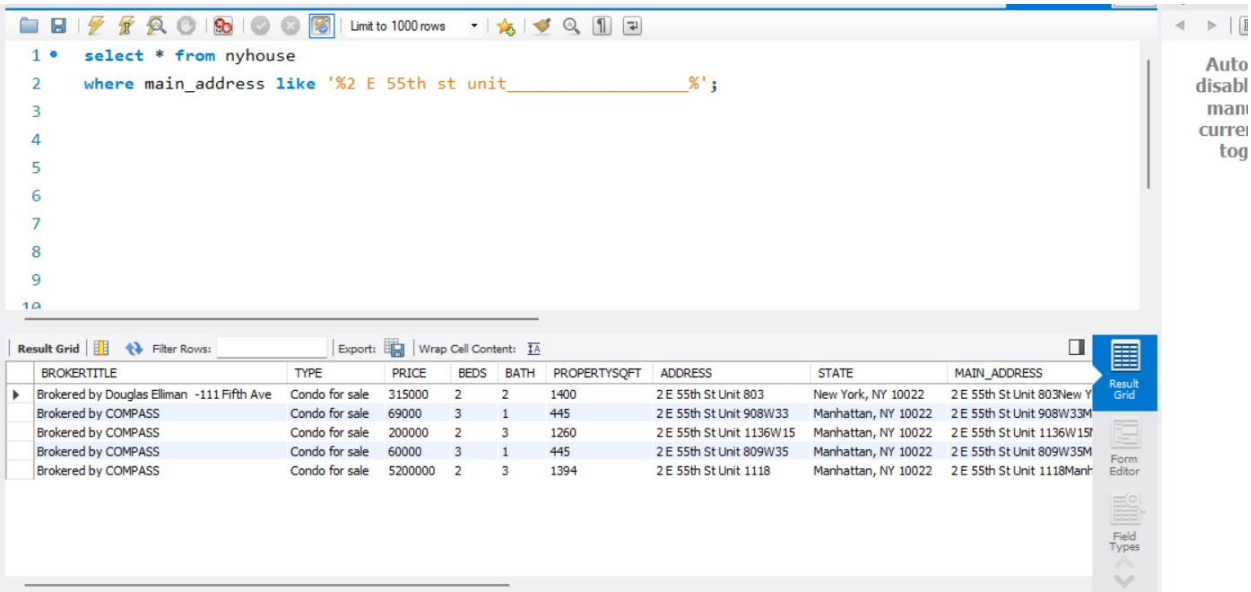
Result 61

Insight number 7 –

--sort main_address

Print all the details from NYhouse table filter to main address which start with ‘2 E 55th st unit’?

Explanation – using wild card in like function (_ or %) I sort the result using main_address .



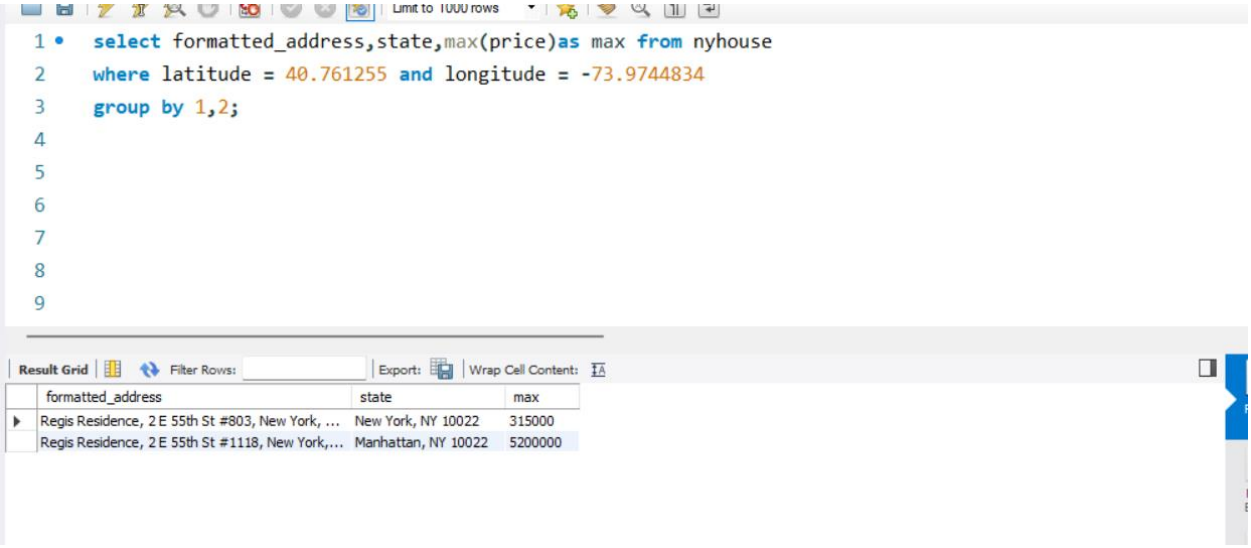
```
select * from nyhouse
where main_address like '%2 E 55th st unit_____%';
```

BROKERTITLE	TYPE	PRICE	BEDS	BATH	PROPERTYSQFT	ADDRESS	STATE	MAIN_ADDRESS
Brokered by Douglas Elliman -111 Fifth Ave	Condo for sale	315000	2	2	1400	2 E 55th St Unit 803	New York, NY 10022	2 E 55th St Unit 803New Y
Brokered by COMPASS	Condo for sale	69000	3	1	445	2 E 55th St Unit 908W33	Manhattan, NY 10022	2 E 55th St Unit 908W33M
Brokered by COMPASS	Condo for sale	200000	2	3	1260	2 E 55th St Unit 1136W15	Manhattan, NY 10022	2 E 55th St Unit 1136W15M
Brokered by COMPASS	Condo for sale	60000	3	1	445	2 E 55th St Unit 809W35	Manhattan, NY 10022	2 E 55th St Unit 809W35M
Brokered by COMPASS	Condo for sale	5200000	2	3	1394	2 E 55th St Unit 1118	Manhattan, NY 10022	2 E 55th St Unit 1118Manh

Insight number 8 –---same latitude and longitude

Print state ,formatted address, maximum price with same latitude and longitude (40.761255 and -73.9744834)?

Explanation- using where clause got the result.



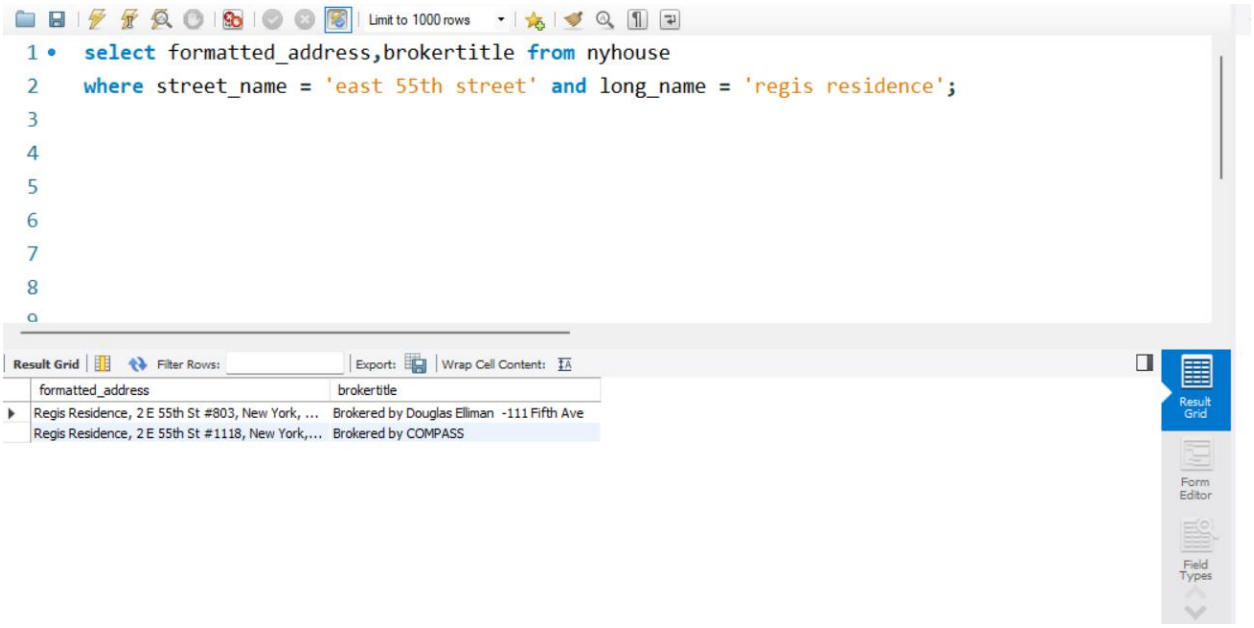
```
select formatted_address,state,max(price)as max from nyhouse
where latitude = 40.761255 and longitude = -73.9744834
group by 1,2;
```

formatted_address	state	max
Regis Residence, 2 E 55th St #803, New York, ...	New York, NY 10022	315000
Regis Residence, 2 E 55th St #1118, New York,...	Manhattan, NY 10022	5200000

Insight number 9- same street_name and long_name

Print formatted_address and brokertitle where street_name 'east 55th street' and long_name is 'Regis residence'?

Explanation- using where clause .



Insight number 10-

Least price and top 3

Print type,brokertitle,and least price for the house having less than 500000 order the result by asc on price and show the top 3 house?

Explanation- selected type , brokertitle column from table to print in 1st and 2nd column in the result resp. then to get least price I use MINIMUM aggregation on price.to filter it on price which is have less than 500000 I use having clause. And to get top 3 I use limit.

```
1
2 •  select type,brokertitle,min(price)as least_price from nyhouse
3    group by 1,2
4    having least_price < 500000
5    order by least_price
6    limit 3;
7
8
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

type	brokertitle	least_price
For sale	Brokered by Living NY - Main Office	2494
Land for sale	Brokered by Century 21 Realty First	5800
Co-op for sale	Brokered by Morris Park Realty Group	49500