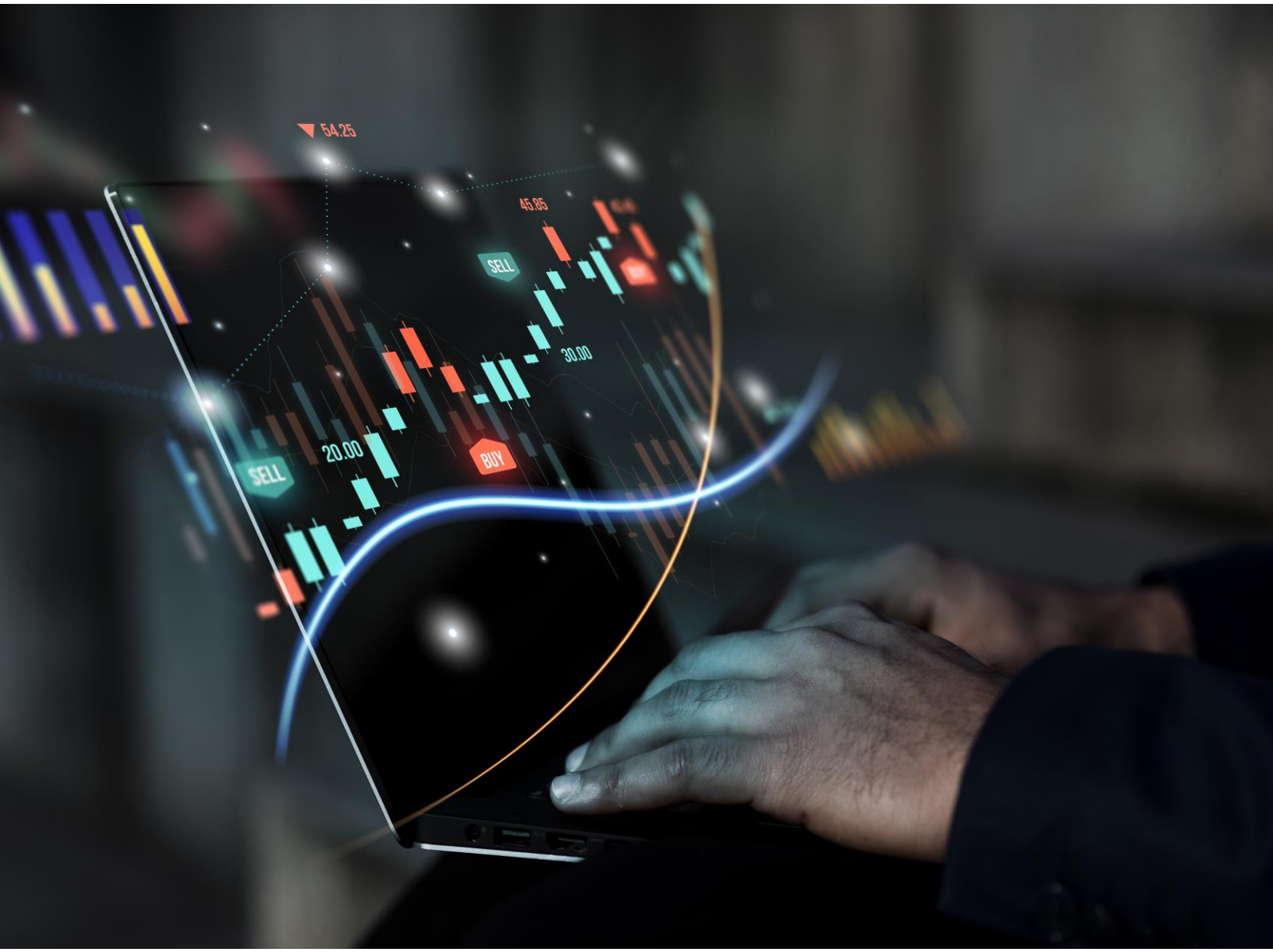

Data analytics With SQL

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Data analytics SQL

1. **Property Type**

SELECT TYPE, COUNT(*) AS Property_Count
FROM NY_House
GROUP BY TYPE
ORDER BY Property_Count DESC;

```
 3 •   create database NY_House;
 4
 5     -- 1. Property type
 6 •   SELECT TYPE, COUNT(*) AS Property_Count
 7     FROM NY_House
 8     GROUP BY TYPE
 9     ORDER BY Property_Count DESC;
10
```

Result Grid | Filter Rows: | Export:

TYPE	Property_Count
Co-op for sale	1450
House for sale	1012
Condo for sale	891
Multi-family home for sale	727
Townhouse for sale	299
Pending	243
Contingent	88
Land for sale	49
For sale	20
Foreclosure	14
Condop for sale	5
Coming Soon	2
Mobile house for sale	1

EXPLAINATION:

This query calculates the average price of properties grouped by their types, allowing stakeholders to understand the average price range for each property type and identify potential areas of investment or market trends.

2. **Average Price by Property Type**

SELECT TYPE, AVG(PRICE) AS Avg_Price
FROM NY_House
GROUP BY TYPE
ORDER BY Avg_Price DESC;

```
12 •  SELECT TYPE, AVG(PRICE) AS Avg_Price
13    FROM NY_House
14    GROUP BY TYPE
15    ORDER BY Avg_Price DESC;
16
```

Result Grid | Filter Rows: | Export

TYPE	Avg_Price
Townhouse for sale	6365924.5485
House for sale	3684215.5208
Condo for sale	2630710.0774
For sale	1954535.9500
Multi-family home for sale	1680427.6699
Foreclosure	1343010.3571
Pending	1340867.2469
Mobile house for sale	1288000.0000
Coming Soon	1172000.0000
Co-op for sale	1100417.6966
Land for sale	1073021.3878
Condop for sale	998600.0000
Contingent	882571.6591

EXPLAINATION:

This query helps analyze the distribution of property types and identifies the most common types of properties listed in the dataset, providing insights into market preferences.

3. **Geospatial Analysis**

SELECT ADDRESS, LATITUDE, LONGITUDE
FROM NY_House;

```
18 •    SELECT ADDRESS, LATITUDE, LONGITUDE
19      FROM NY_House;
```

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

ADDRESS	LATITUDE	LONGITUDE
2 E 55th St Unit 803	40.761255	-73.9744834
Central Park Tower Penthouse-217 W 57th New...	40.7663935	-73.9809909
620 Sinclair Ave	40.5418051	-74.1961086
2 E 55th St Unit 908W33	40.7613979	-73.9746128
5 E 64th St	40.7672235	-73.9698561
584 Park Pl	40.6743632	-73.9587248
157 W 126th St Unit 1B	40.809448	-73.946777
177 Benedict Rd	40.5950017	-74.1064235
875 Morrison Ave Apt 3M	40.8215857	-73.8740892
1350 Ocean Pkwy Apt 5G	40.6157378	-73.9696944
800 Grand Concourse Apt 2JS	40.8248699	-73.9229829
456 Van Name Ave	40.6249962	-74.1553058
34-41 85th St Unit 1D	40.7531191	-73.8818757
91-15 Lamont Ave Unit 6D	40.7438639	-73.8745722
61 Jane St Apt 6N	40.7382981	-74.0058899
4654 Amboy Rd Unit 2B	40.5406209	-74.1671632
28-31 Hobart St	40.7607676	-73.9056672
9430 Ridge Blvd Apt 6D	40.6181029	-74.0369047
5800 Arlington Ave Apt 21A	40.9073699	-73.9065578
92-29 Queens Blvd Unit 3H	40.7324713	-73.8670804

Explaination:

This query retrieves the address along with latitude and longitude coordinates of properties, enabling geospatial analysis to identify hotspots, clusters, or patterns in property distribution across New York City.

4. **Bedroom-Bathroom Ratio**

SELECT BEDS, BATH, COUNT(*) AS Property_Count
FROM NY_House
GROUP BY BEDS, BATH
ORDER BY Property_Count DESC;

```
22 •  SELECT BEDS, BATH, COUNT(*) AS Property_Count
23    FROM NY_House
24    GROUP BY BEDS, BATH
25    ORDER BY Property_Count DESC;
```

Result Grid | Filter Rows: | Export: | Wrap

BEDS	BATH	Property_Count
1	1	741
3	2	667
2	2	551
2	1	423
3	1	338
4	2	243
3	2.3738608579684373	171
4	4	156
3	3	143
3	4	113
4	3	108
5	4	98
5	3	89
5	2	85
1	2	72
6	3	63
6	4	61
6	5	40
6	2	39
5	2.3738608579684373	38

Explaination:

This query provides insights into the distribution of bedroom and bathroom combinations in listed properties, helping stakeholders understand housing preferences and market demand for different configurations.

5. Address Analysis

```
SELECT LOCALITY, COUNT(*) AS Property_Count
FROM NY_House
GROUP BY LOCALITY
ORDER BY Property_Count DESC
LIMIT 10;
```

```
28 •  SELECT LOCALITY, COUNT(*) AS Property_Count
29    FROM NY_House
30    GROUP BY LOCALITY
31    ORDER BY Property_Count DESC
32    LIMIT 10;
```

Result Grid | Filter Rows: | Export: | W

LOCALITY	Property_Count
New York	2505
New York County	979
Queens County	557
Kings County	464
Bronx County	182
Richmond County	59
United States	37
Brooklyn	6
Queens	6
The Bronx	5

Explaination:

This query retrieves the top 10 localities with the highest number of properties listed in the dataset. It provides insights into the distribution of properties across different neighborhoods or localities within New York City.

6. **Maximum locality**

SELECT MAX(LOCALITY) AS Max

FROM NY_House

GROUP by LOCALITY;

```
35 •    SELECT MAX(LOCALITY) AS Max
36      FROM NY_House
37      GROUP by LOCALITY;
38
```

Result Grid | Filter Rows:

LOCALITY	Property_Count
New York	2505
New York County	979
Queens County	557
Kings County	464
Bronx County	182
Richmond County	59
United States	37
Brooklyn	6
Queens	6
The Bronx	5

Explaination:

"Maximum locality" isn't a standard term in SQL or data analysis. If you could provide more context or clarify what you mean by "maximum locality," I would be better able to assist you in generating an explanation or que "Maximum locality" isn't a standard term in SQL or data analysis. If you could provide more context or clarify what you mean by "maximum locality," I would be better able to assist you in generating an explanation or query.

7. **Price Distribution by State**

```
SELECT STATE, AVG(PRICE) AS Avg_Price

FROM NY_House

GROUP BY STATE

ORDER BY Avg_Price DESC;
```

```
41 •  SELECT STATE, AVG(PRICE) AS Avg_Price
42    FROM NY_House
43    GROUP BY STATE
44    ORDER BY Avg_Price DESC;
45
```

Result Grid | Filter Rows: | Export:

STATE	Avg_Price
New York, NY 10309	2147483647.0000
Manhattan, NY 10013	12965333.3333
New York, NY 10013	11128124.9583
New York, NY 10011	9810750.0000
Manhattan, NY 10075	9189461.5385
New York, NY 10019	8764590.9091
New York, NY 10065	8412191.4681
New York, NY 10007	8340466.6667
New York, NY 10021	7821999.8750
New York, NY 10014	7219454.5455
New York, NY 10075	7107821.3571
New York, NY 10012	6897071.4286
New York, NY 10010	6385707.2353
New York, NY 10028	5715390.2439
Manhattan, NY 10003	5237416.6667
Manhattan, NY 10018	4880000.0000
Manhattan, NY 10011	4872303.5714
New York, NY 10023	4813945.4182
Manhattan, NY 10002	4515666.6667

Explaination:

This query calculates the average price of properties grouped by state, allowing stakeholders to understand price disparities and trends across different regions within New York.

8. **Property Size Distribution by Property Type**

```
SELECT TYPE, AVG(PROPERTYSQFT) AS Avg_Size

FROM NY_House

GROUP BY TYPE

ORDER BY Avg_Size DESC;
```

```
46 •  SELECT TYPE, AVG(PROPERTYSQFT) AS Avg_Size
47    FROM NY_House
48    GROUP BY TYPE
49    ORDER BY Avg_Size DESC;
50
```

Result Grid | Filter Rows: | Export: | Wrap

TYPE	Avg_Size
Townhouse for sale	3891.0936
Multi-family home for sale	3259.8102
Foreclosure	2331.2143
House for sale	2255.5010
Coming Soon	2217.0000
Mobile house for sale	2184.0000
Condop for sale	2184.0000
Land for sale	2158.8163
For sale	2116.4000
Pending	2070.0947
Contingent	1775.2045
Co-op for sale	1661.8317
Condo for sale	1574.5982

Explaination:

This query computes the average property size (in square footage) for each property type, providing insights into the typical size range associated with different types of properties.

9. **Popular Street Names**

```
SELECT STREET_NAME, COUNT(*) AS Property_Count
```

FROM NY_House

GROUP BY STREET_NAME

ORDER BY Property_Count DESC

LIMIT 10;

```
51 •  SELECT STREET_NAME, COUNT(*) AS Property_Count
52    FROM NY_House
53    GROUP BY STREET_NAME
54    ORDER BY Property_Count DESC
55    LIMIT 10;
```

Result Grid | Filter Rows: | Export: | Wrap

STREET_NAME	Property_Count
Manhattan	979
Brooklyn	727
Queens	684
Staten Island	480
The Bronx	310
New York	285
Flushing	139
Forest Hills	62
Jackson Heights	42
Bayside	42

Explaination:

This query identifies the most frequently occurring street names among listed properties, providing insights into popular areas and neighborhoods within New York.

10. **Property Size vs Price**

SELECT TYPE, AVG(PROPERTYSQFT) AS Avg_Size, AVG(PRICE) AS Avg_Price

FROM NY_House

GROUP BY TYPE

ORDER BY Avg_Price DESC;

```
57 •    SELECT TYPE, AVG(PROPERTYSQFT) AS Avg_Size, AVG(PRICE) AS Avg_Price
58      FROM NY_House
59      GROUP BY TYPE
60      ORDER BY Avg_Price DESC;
61
62
```

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

TYPE	Avg_Size	Avg_Price
Townhouse for sale	3891.0936	6365924.5485
House for sale	2255.5010	3684215.5208
Condo for sale	1574.5982	2630710.0774
For sale	2116.4000	1954535.9500
Multi-family home for sale	3259.8102	1680427.6699
Foreclosure	2331.2143	1343010.3571
Pending	2070.0947	1340867.2469
Mobile house for sale	2184.0000	1288000.0000
Coming Soon	2217.0000	1172000.0000
Co-op for sale	1661.8317	1100417.6966
Land for sale	2158.8163	1073021.3878
Condop for sale	2184.0000	998600.0000
Contingent	1775.2045	882571.6591

Explaination:

This query examines the relationship between property size (square footage) and price for each property type, allowing stakeholders to assess the impact of size on pricing within different segments of the market.