Complete Query-Result Mapping

Property Analytics

Query 1: Number of listed properties by type and location

```
SELECT
    PropertyType,
    Location,
    COUNT(*) AS NumberOfProperties
From
    Properties
Group By
    PropertyType, Location
ORDER BY
    PropertyType, Location;
```

Results:

- Apartment/Chicago: 36 properties
- Apartment/Houston: 40 properties
- Apartment/Los Angeles: 45 properties
- Apartment/Miami: 55 properties
- Apartment/New York: 39 properties
- Office/Chicago: 29 properties
- Office/Houston: 41 properties
- Office/Los Angeles: 37 properties
- Office/Miami: 31 properties
- Office/New York: 52 properties
- Retail/Chicago: 46 properties
- Retail/Houston: 33 properties
- Retail/Los Angeles: 35 properties
- Retail/Miami: 39 properties
- Retail/New York: 42 properties
- Villa/Chicago: 42 properties
- Villa/Houston: 39 properties
- Villa/Los Angeles: 35 properties
- Villa/Miami: 52 properties
- Villa/New York: 40 properties
- Warehouse/Chicago: 40 properties
- Warehouse/Houston: 45 properties
- Warehouse/Los Angeles: 46 properties
- Warehouse/Miami: 28 properties
- Warehouse/New York: 33 properties

Key Insights:

- Miami leads in both Apartments (55) and Villas (52), suggesting a strong residential market
- New York has the highest concentration of Office properties (52)
- Chicago has the strongest retail property presence (46)
- Los Angeles leads in warehouse properties (46)

Query 2: Average price per square meter per city

```sql
SELECT
    Location AS City,
    Round(AVG(PriceUSD / NULLIF(Size_sqm, 0)),2) AS AvgPricePerSqm
FROM
    Properties
GROUP BY
    Location
ORDER BY
    AvgPricePerSqm DESC;
```

Results:

- Chicago: $2,820.05/sqm
- Miami: $2,725.70/sqm
- Houston: $2,703.52/sqm
- New York: $2,664.55/sqm
- Los Angeles: $2,618.62/sqm

Key Insights:

- Chicago has the highest property value per square meter, despite not having the highest total property count
- Surprisingly, New York ranks only 4th in price per square meter despite its reputation for expensive real estate
- The price range across all cities is relatively narrow (about $200/sqm difference between highest and lowest)

Query 3: Distribution of property types

```sql
SELECT
    PropertyType,
    COUNT(*) AS NumberOfProperties
FROM
    Properties
GROUP BY
    PropertyType
ORDER BY
    NumberOfProperties DESC;
```

Results:

- Apartment: 215 properties
- Villa: 208 properties
- Retail: 195 properties
- Warehouse: 192 properties
- Office: 190 properties

Key Insights:

- Residential properties (Apartments and Villas combined) make up the largest segment of the portfolio (423 properties, ~42%)
- The distribution is relatively balanced across all property types
- Apartments are the most common property type, suggesting a focus on residential rental or multi-family investments
- Commercial properties (Retail, Warehouse, Office) collectively represent the majority of the portfolio (577 properties, ~58%)

Query 4: Top 10 most expensive properties

```
SELECT
    TOP 10
    PropertyID,
    PropertyType,
    PriceUSD
FROM
    Properties
ORDER BY
    PriceUSD DESC;
```

Results:

- PropertyID 297 (Apartment): $998,279
- PropertyID 906 (Office): $997,603
- PropertyID 669 (Apartment): $997,351
- PropertyID 808 (Villa): $997,349
- PropertyID 7 (Warehouse): $996,692
- PropertyID 579 (Warehouse): $996,081
- PropertyID 960 (Retail): $994,842
- PropertyID 31 (Apartment): $994,440
- PropertyID 564 (Retail): $994,201
- PropertyID 474 (Office): $989,997

Key Insights:

- The most expensive property is an Apartment (ID: 297) valued at $998,279
- The narrow price range among top properties (all within $10,000 of each other)

- Apartments appear most frequently in the top 10, indicating potential for high-value residential investments

Query 5: Top 10 most visited properties

```sql
SELECT
    TOP 10
    v.PropertyID,
    p.PropertyType,
    COUNT(*) AS NumberOfVisits
FROM
    Visits AS v
Inner JOIN
    Properties AS p
    ON v.PropertyID = p.PropertyID
GROUP BY
    v.PropertyID, p.PropertyType, p.Location
ORDER BY
    NumberOfVisits DESC;
```

Results:

- PropertyID 353 (Apartment): 13 visits
- PropertyID 398 (Apartment): 12 visits
- PropertyID 380 (Retail): 12 visits
- PropertyID 652 (Office): 12 visits
- PropertyID 821 (Apartment): 12 visits
- PropertyID 194 (Warehouse): 11 visits
- PropertyID 853 (Warehouse): 11 visits
- PropertyID 924 (Retail): 11 visits
- PropertyID 392 (Office): 11 visits
- PropertyID 517 (Warehouse): 11 visits

Key Insights:

- Property ID 353 (Apartment) is the most visited with 13 visits
- Apartments and Warehouses generate the most client interest
- High visit counts don't necessarily correlate with property value (none of the most visited properties appear in the top 10 most expensive)
- Properties with high visit counts may warrant special attention for potential pricing adjustments or marketing emphasis

Sales Performance

Query 6: Total sales value over time (monthly)

```sql
SELECT
    MONTH(SaleDate) AS MonthNum,
```

```
    CAST(SUM(SalePrice) AS INT) AS TotalSales
FROM
    Sales
GROUP BY
    MONTH(SaleDate)
ORDER BY
    MonthNum DESC;
```

Results:

- January: $135,796,963
- February: $112,234,792
- March: $139,062,886
- April: $137,252,899
- May: $144,912,056
- June: $124,918,683
- July: $132,334,908
- August: $108,125,294
- September: $119,679,508
- October: $112,692,544
- November: $124,149,336
- December: $147,789,206

Key Insights:

- Strong seasonal pattern with December showing the highest sales (likely year-end closings)
- Mid-year peak in May suggests a second strong selling season
- August shows the lowest performance, indicating a potential summer slowdown
- Monthly sales fluctuate by up to 37% throughout the year, highlighting the importance of seasonal planning

Query 7: Total sales value over time (quarterly)

```
SELECT
    DATEPART(QUARTER, SaleDate) AS QrtNum,
    CAST(SUM(SalePrice) AS INT) AS TotalSales
FROM
    Sales
GROUP BY
    DATEPART(QUARTER, SaleDate)
ORDER BY
    QrtNum;
```

Results:

- Q1: $387,094,641
- Q2: $407,083,638
- Q3: $360,139,710

- Q4: $384,631,086

Key Insights:

- Q2 is the strongest quarter for sales, aligning with the monthly data showing May as a peak month
- Q3 shows the lowest performance, confirming the summer slowdown seen in the monthly data
- The difference between the strongest and weakest quarters is about 13%, less than monthly variations

Query 8: Total sales value over time (yearly)

```sql
SELECT
    YEAR(SaleDate) AS Year,
    CAST(SUM(SalePrice) AS INT) AS TotalSales
FROM
    Sales
GROUP BY
    YEAR(SaleDate)
ORDER BY
    Year;
```

Results:

- 2023: $474,210,304
- 2024: $793,376,420
- 2025: $271,362,351 (partial year)

Key Insights:

- Significant growth from 2023 to 2024 (67% increase)
- 2025 is on track to potentially exceed previous years if the trend continues
- The strong year-over-year growth indicates successful business expansion or market improvement

Query 9: Average sale value per property type

```sql
SELECT
    p.PropertyType,
    CAST(ROUND(AVG(s.SalePrice), 2) AS DECIMAL(18,2)) AS AvgSaleValue
FROM
    Sales s
Inner JOIN
    Properties p
    ON s.PropertyID = p.PropertyID
GROUP BY
    p.PropertyType
ORDER BY
    AvgSaleValue DESC;
```

Results:

- Warehouse: $800,097.67
- Office: $777,720.31
- Retail: $766,495.68
- Villa: $762,813.47
- Apartment: $750,744.24

Key Insights:

- Warehouses command the highest average sale price, likely reflecting their commercial value and larger size
- Commercial properties (Warehouse, Office, Retail) generally sell for higher prices than residential properties
- The difference between highest and lowest average sale values is only about 6.6%
- Despite Apartments being the most common property type, they have the lowest average sale value

Query 10: Conversion rate per property

```sql
WITH PropertyStats AS (
    SELECT
        p.PropertyID,
        p.PropertyType,
        COUNT(DISTINCT v.VisitID) AS VisitCount,
        CASE WHEN
                COUNT(DISTINCT s.SaleID) > 0 THEN 1
                ELSE 0
        END AS WasSold
    FROM
        Properties AS p
        LEFT JOIN Visits AS v
        ON p.PropertyID = v.PropertyID
        LEFT JOIN Sales AS s
        ON p.PropertyID = s.PropertyID
    GROUP BY
        p.PropertyID, p.PropertyType
)
SELECT
    PropertyID,
    PropertyType,
    VisitCount,
    WasSold,
    CASE WHEN
            VisitCount = 0 THEN 0
            WHEN WasSold = 1 THEN CAST(ROUND(100.0 / VisitCount, 2) AS
DECIMAL(5,2))
            ELSE 0
    END AS ConversionRatePercent
FROM
    PropertyStats
ORDER BY
    ConversionRatePercent DESC;
```

Results:

- Many properties achieved 100% conversion (sold after just one visit)
- Properties with 1 visit and 1 sale have 100% conversion
- Properties with 2 visits and 1 sale have 50% conversion
- Properties with 3 visits and 1 sale have 33.33% conversion
- Properties with 4 visits and 1 sale have 25% conversion
- Properties with 5 visits and 1 sale have 20% conversion

Key Insights:

- Properties with 100% conversion rate (sold after first visit) indicate highly desirable assets or effective pricing
- The conversion rate decreases predictably as the number of visits increases
- Properties requiring many visits before sale may need pricing adjustments or improved marketing

Query 11: Conversion rate per agent

```sql
SELECT
    a.AgentID,
    CONCAT(a.FirstName, ' ', a.LastName) AS AgentName,
    COUNT(DISTINCT s.SaleID) AS NumberOfSales,
    COUNT(DISTINCT v.VisitID) AS NumberOfVisits,
    CAST(ROUND((COUNT(DISTINCT s.SaleID) * 100.0) / NULLIF(COUNT(DISTINCT
v.VisitID), 0),2) AS DECIMAL(5,2)) AS ConversionRatePercentage

FROM
    Agents AS a
LEFT JOIN
    Sales AS s
    ON a.AgentID = s.AgentID
LEFT JOIN
    Visits AS v
    ON a.AgentID = v.AgentID
GROUP BY
    a.AgentID, a.FirstName, a.LastName
ORDER BY
    ConversionRatePercentage DESC;
```

Results:

- AgentID 91 (Francisco Williams): 29 Sales / 38 visits / 76.32 ConversionRate
- AgentID 100 (Tyler Maddox): 24 Sales / 36 visits / 66.67 ConversionRate
- AgentID 73 (Nathan Stevens): 23 Sales / 36 visits / 63.89 ConversionRate
- AgentID 17 (Kelli Davisy): 27 Sales / 44 visits / 61.36 ConversionRate
- AgentID 67 (Joshua Olson): 24 Sales / 40 visits / 60.00 ConversionRate
- AgentID 31 (Gordon Wilson): 28 Sales / 48 visits / 58.33 ConversionRate

Key Insights:

- Top-performing agents achieve significantly higher conversion rates than others
- Conversion rate is a better performance indicator than raw sales numbers as it measures efficiency
- Agents with low conversion rates may benefit from additional training or different property assignments

Query 12: Time on market before sale

```
SELECT
    s.PropertyID,
    p.PropertyType,
    MIN(v.VisitDate) AS FirstVisitDate,
    s.SaleDate,
    DATEDIFF(DAY, MIN(v.VisitDate), s.SaleDate) AS DaysOnMarket
FROM
    Sales AS s
Inner JOIN
    Properties AS p
    ON s.PropertyID = p.PropertyID
Inner JOIN
    Visits AS v
    ON s.PropertyID = v.PropertyID
GROUP BY
    s.PropertyID, p.PropertyType, s.SaleDate
ORDER BY
    DaysOnMarket DESC;
```

Results:

- PropertyID 281 (Apartment): 2024-05-14 FirstVisitDate / 2025-05-09 SaleDate / 360 DaysOnMarket
- PropertyID 647 (Villa): 2024-05-11 FirstVisitDate / 2025-04-30 SaleDate / 354 DaysOnMarket
- PropertyID 323 (Office): 2024-05-19 FirstVisitDate / 2024-05-19 SaleDate / 350 DaysOnMarket
- PropertyID 737 (Retail): 2024-05-13FirstVisitDate / 2024-05-13 SaleDate / 345 DaysOnMarket
- Properties show varying time periods between first visit and sale
- Some properties sell very quickly after the first visit

Key Insights:

- Properties with shorter market times indicate strong demand or effective pricing
- Longer market times may signal pricing issues or property condition concerns

Agent Performance

Query 13: Number of sales per agent

```
SELECT
    a.AgentID,
    CONCAT(a.FirstName, ' ', a.LastName) AS AgentName,
```

```
        COUNT(s.SaleID) AS NumberOfSales
    FROM
        Agents AS a
    LEFT JOIN
        Sales AS s
        ON a.AgentID = s.AgentID
    GROUP BY
        a.AgentID, a.FirstName, a.LastName
    ORDER BY
        NumberOfSales DESC;
```

Results:

- AgentID 91 (Francisco Williams): 29 Sales
- AgentID 93 (Samantha Vargas): 28 Sales
- AgentID 87 (Michelle Davis): 28 Sales
- AgentID 31 (Gordon Wilson): 28 Sales
- AgentID 17 (Kelli Davisy): 27 Sales
- AgentID 6 (Larry Holloway): 26 Sales
- AgentID 9 (Ryan Wolf): 26 Sales

Key Insights:

- Clear performance tiers emerge among agents
- Sales counts vary significantly across agents
- Top-performing agents handle substantially more sales than others
- Clear performance tiers emerge among the sales team

Query 14: Number of client visits per agent

```
SELECT
    a.AgentID,
    CONCAT(a.FirstName, ' ', a.LastName) AS AgentName,
    COUNT(v.VisitID) AS NumberOfClientVisits
FROM
    Agents AS a
LEFT JOIN
    Visits AS v
    ON a.AgentID = v.AgentID
GROUP BY
    a.AgentID, a.FirstName, a.LastName
ORDER BY
    NumberOfClientVisits DESC;
```

Results:

- AgentID 15 (Julie Barrett): 66 visits
- AgentID 23 (Carolyn Gibbs): 66 visits
- AgentID 40 (Mark Lopez): 64 visits

- AgentID 93 (Samantha Vargas): 64 visits
- AgentID 92 (Carolyn Terry): 63 visits
- AgentID 80 (Kim Jackson): 60 visits
- AgentID 98 (Jeremy Wade): 60 visits 60

Key Insights:

- High visit counts indicate active prospecting and client engagement
- Some agents may have high visit counts but lower sales, suggesting conversion challenges, only Samantha Vargas was of the top Sales
- Visit counts vary across agents
- Activity levels don't always correlate directly with sales performance

Query 15: Conversion rate per agent (percentage)

```sql
SELECT
    a.AgentID,
    CONCAT(a.FirstName, ' ', a.LastName) AS AgentName,
    COUNT(DISTINCT s.SaleID) AS NumberOfSales,
    COUNT(DISTINCT v.VisitID) AS NumberOfVisits,
    CAST(ROUND((COUNT(DISTINCT s.SaleID) * 100.0) / NULLIF(COUNT(DISTINCT
v.VisitID), 0),2) AS DECIMAL(5,2)) AS ConversionRatePercentage

FROM
    Agents AS a
LEFT JOIN
    Sales AS s
    ON a.AgentID = s.AgentID
LEFT JOIN
    Visits AS v
    ON a.AgentID = v.AgentID
GROUP BY
    a.AgentID, a.FirstName, a.LastName
ORDER BY
    ConversionRatePercentage DESC;
```

Results:

- AgentID 91 (Francisco Williams): 29 Sales / 38 visits / 76.32 ConversionRate
- AgentID 100 (Tyler Maddox): 24 Sales / 36 visits / 66.67 ConversionRate
- AgentID 73 (Nathan Stevens): 23 Sales / 36 visits / 63.89 ConversionRate
- AgentID 17 (Kelli Davisy): 27 Sales / 44 visits / 61.36 ConversionRate
- AgentID 67 (Joshua Olson): 24 Sales / 40 visits / 60.00 ConversionRate
- AgentID 31 (Gordon Wilson): 28 Sales / 48 visits / 58.33 ConversionRate
- Conversion rates expressed as percentages
- Top agents convert a much higher percentage of visits to sales
- Significant variation in conversion efficiency across the team

Key Insights:

- Conversion efficiency varies significantly across the team
- Some agents may have fewer total sales but higher conversion efficiency
- This efficiency metric identifies different sales approaches and effectiveness
- Crucial for targeted training and development of the sales team

Query 16: Average sale value handled by each agent

```sql
SELECT
    a.AgentID,
    CONCAT(a.FirstName, ' ', a.LastName) AS AgentName,
    CAST(ROUND(AVG(s.SalePrice), 2) AS DECIMAL(15,2)) AS AverageSaleValue
FROM
    Agents AS a
LEFT JOIN
    Sales AS s
    ON a.AgentID = s.AgentID
GROUP BY
    a.AgentID, a.FirstName, a.LastName
ORDER BY
    AverageSaleValue DESC;
```

Results:

- AgentID 92 (Carolyn Terry): 1078569.93 AVGSales
- AgentID 52 (Michele Coleman): 1047041.79 AVGSales
- AgentID 19 (Victor Fernandez): 942749.12 AVGSales
- AgentID 33 (Paul Brooks): 940187.05 AVGSales
- Highest AverageSaleValue Agent is Carolyn Terry

Key Insights:

- Average transaction values vary by agent
- Specialization in premium properties or market segments is evident
- This helps in strategic assignment of listings to appropriate agents

Client Engagement

Query 17: Number of properties visited per client

```sql
SELECT
    c.ClientID,
    CONCAT(c.FirstName, ' ', c.LastName) AS ClientName,
    COUNT(DISTINCT v.PropertyID) AS NumberOfPropertiesVisited
FROM
    Clients AS c
LEFT JOIN
    Visits AS v
```

```
        ON c.ClientID = v.ClientID
GROUP BY
        c.ClientID, c.FirstName, c.LastName
ORDER BY
        NumberOfPropertiesVisited DESC;
```

Results:

- Clients show varying levels of engagement
- Some clients visit many properties before making a decision
- Others visit few properties before purchasing
- Visit patterns provide insights into client decision-making processes

Key Insights:

- Clients with many visits without purchases may need more targeted recommendations
- Clients who purchase after few visits represent efficient transactions
- This metric helps prioritize follow-up with highly engaged prospects
- Patterns in visit behavior inform marketing and property matching strategies

Query 18: Top clients by sale value

```
SELECT TOP 10
    c.ClientID,
    CONCAT(c.FirstName, ' ', c.LastName) AS ClientName,
    CAST(SUM(s.SalePrice) AS FLOAT) AS SaleValue
FROM
    Clients c
Inner JOIN
    Sales s ON c.ClientID = s.ClientID
GROUP BY
    c.ClientID, c.FirstName, c.LastName
ORDER BY
    SaleValue DESC;
```

Results:

- ClientID 1034 (Miranda Gomez): 5309528 SaleValue
- ClientID 751 (Deborah Gibson): 5059593 SaleValue
- ClientID 1378 (Brenda Cobb): 4975928 SaleValue
- ClientID 315 (William Brown): 4788386 SaleValue
- ClientID 973 (James Andrade): 4726575 SaleValue
- ClientID 486 (Michelle Martin): 4674197 SaleValue
- Top 10 clients by total purchase value
- Significant variation in spending among top clients

Key Insights:

- Top clients represent significant revenue contributors

- Understanding characteristics of top clients can inform acquisition strategies
- Potential for developing targeted loyalty programs for high-value clients

Query 19: First-time vs repeat buyers

```sql
WITH ClientSaleCounts AS (
    SELECT
        ClientID,
        COUNT(SaleID) AS NumberOfSales
    FROM
        Sales
    GROUP BY
        ClientID
)
SELECT
    c.ClientID,
    CONCAT(c.FirstName, ' ', c.LastName) AS ClientName,
    ISNULL(csc.NumberOfSales, 0) AS TotalSalesMade,
    CASE WHEN
        csc.NumberOfSales = 1 THEN 'First-Time Buyer'
        WHEN csc.NumberOfSales > 1 THEN 'Repeat Buyer'
        ELSE 'Not a Buyer'
    END AS BuyerType
FROM
    Clients AS c
LEFT JOIN
    ClientSaleCounts AS csc
    ON c.ClientID = csc.ClientID
ORDER BY
    c.LastName, c.FirstName;
```

Results:

- ClientID 373 (Alexis Adams): 0 TotalSalesMade / Not a Buyer
- ClientID 1369 (Daniel Adams): 0 TotalSalesMade / Not a Buyer
- ClientID 21 (Helen Adams): 2 TotalSalesMade / Repeat Buyer
- ClientID 779 (Michael Adams): 1 TotalSalesMade / First-Time Buyer
- ClientID 1213 (Thomas Adams): 0 TotalSalesMade / Not a Buyer
- ClientID 912 (Scott Adkins): 3 TotalSalesMade / Repeat Buyer
- Clients categorized as First-Time Buyers, Repeat Buyers, or Not a Buyer
- Distribution shows the mix of new vs. returning customers

Key Insights:

- Repeat buyers indicate customer satisfaction and loyalty
- First-time buyers represent opportunities for relationship development

Query 20: Region-based client interest

```
SELECT
    c.ClientID,
    CONCAT(c.FirstName, ' ', c.LastName) AS ClientName,
    p.Location AS City,
    COUNT(v.VisitID) AS NumberOfVisitsInCity
FROM
    Clients AS c
Inner JOIN
    Visits AS v ON
    c.ClientID = v.ClientID
Inner JOIN
    Properties AS p
    ON v.PropertyID = p.PropertyID
GROUP BY
    c.ClientID, c.FirstName, c.LastName, p.Location
ORDER BY
    NumberOfVisitsInCity DESC;
```

Results:

- ClientID 408 (Julie Hood): 5 NumOfVisitsInCity / Chicago
- ClientID 1002 (Jenny Roberts): 5 NumOfVisitsInCity / Chicago
- ClientID 856 (Jennifer Hall): 5 NumOfVisitsInCity / New York
- ClientID 860 (Karen Hansen): 4 NumOfVisitsInCity / New York
- ClientID 722 (Nicholas Bryant): 4 NumOfVisitsInCity / New York
- Client visit patterns by city
- Many clients show strong preferences for specific locations

Key Insights:

- This data enables personalized property recommendations by location
- Marketing can be targeted to promote properties in preferred locations

Location-Based Insights

Query 21: Sales heatmap by city (volume)

```
SELECT
    p.Location,
    COUNT(s.SaleID) AS SalesNum
FROM
    Properties AS p
INNER JOIN
    Sales AS s
    ON p.PropertyID = s.PropertyID
GROUP BY
    p.Location
ORDER BY
    SalesNum DESC;
```

Results:

- New York : 431 SalesNum
- Miami: 423 SalesNum
- Los Angeles : 390 SalesNum
- Chicago : 382 SalesNum
- Houston: 374 SalesNum

Key Insights:

- Sales volume varies by location
- High-volume areas may indicate strong market demand or effective local marketing
- This data guides resource allocation and expansion planning
- Tracking changes in volume over time identifies emerging or declining markets

Query 22: Sales heatmap by city (value)

```sql
SELECT
    p.Location,
    CAST(SUM(s.SalePrice) AS FLOAT) AS SaleValue
FROM
    Properties p
Inner JOIN
    Sales AS s
    ON p.PropertyID = s.PropertyID
GROUP BY
    p.Location
ORDER BY
    SaleValue DESC;
```

Results:

- New York : 335232909 SaleValue
- Miami: 329565569 SaleValue
- Los Angeles : 297518749 SaleValue
- Houston: 294496032 SaleValue
- Chicago : 282135816 SaleValue

Key Insights:

- Total sales value by location
- Financial significance of different markets
- Some locations generate higher total revenue despite fewer transactions

Query 23: High-performing areas (most sold)

```sql
SELECT
    p.Location,
```

```
        COUNT(s.SaleID) AS SalesNum
FROM
    Properties AS p
INNER JOIN
    Sales AS s
    ON p.PropertyID = s.PropertyID
GROUP BY
    p.Location
ORDER BY
    SalesNum DESC;
```

Results:

- New York : 431 SalesNum
- Miami: 423 SalesNum
- Los Angeles : 390 SalesNum
- Chicago : 382 SalesNum
- Houston: 374 SalesNum

Key Insights:

- Locations ranked by number of properties sold
- High-performing areas represent locations with strong demand
- These areas represent locations where properties move quickly
- Understanding high-performing areas helps focus marketing and acquisition

Query 24: Average visit-to-sale ratio per location

```
WITH SoldProperties AS (
    SELECT
        p.PropertyID,
        p.Location
    FROM
        Properties p
        INNER JOIN Sales AS s
                ON p.PropertyID = s.PropertyID
),
VisitsPerSoldProperty AS (
    SELECT
        sp.PropertyID,
        sp.Location,
        COUNT(v.VisitID) AS VisitsNum
    FROM
        SoldProperties AS sp
        LEFT JOIN Visits AS v
        ON sp.PropertyID = v.PropertyID
    GROUP BY
        sp.PropertyID, sp.Location
)
SELECT
    Location,
```

```
    AVG(VisitsNum * 1.0) AS AvgVisitToSaleRatio
FROM
    VisitsPerSoldProperty
GROUP BY
    Location
ORDER BY
    AvgVisitToSaleRatio DESC;
```

Results:

- Chicago : 12.391566 AvgVisitToSaleRatio
- New York : 12.011173 AvgVisitToSaleRatio
- Miami: 11.966480 AvgVisitToSaleRatio
- Los Angeles : 11.339181 AvgVisitToSaleRatio
- Houston: 10.898809 AvgVisitToSaleRatio

Key Insights:

- Some areas may have higher visit-to-sale ratios, indicating more efficient markets
- Areas with low ratios may need pricing adjustments or improved marketing

Milestone Query Mapping and Insights

Query 1: Potential Customers for Email Campaigns

```
WITH ClientSaleCounts AS (
    SELECT
        ClientID,
        COUNT(SaleID) AS NumberOfSales
    FROM
        Sales
    GROUP BY
        ClientID
)
SELECT
    c.ClientID,
    CONCAT(c.FirstName, ' ', c.LastName) AS ClientName,
    c.Email,
    ISNULL(csc.NumberOfSales, 0) AS TotalSalesMade
FROM
    Clients AS c
LEFT JOIN
    ClientSaleCounts AS csc
    ON c.ClientID = csc.ClientID
WHERE
    csc.NumberOfSales = 1
    OR
    csc.NumberOfSales IS NULL
ORDER BY
    c.LastName, c.FirstName;
```

Results:

- ClientID 373 (Alexis Adams): mshelton@yahoo.com / 0 TotalSalesMade
- ClientID 1369 (Daniel Adams): rebeccascott@nelson.org / 0 TotalSalesMade
- ClientID 779 (Michael Adams): sean78@rose.com / 1 TotalSalesMade
- ClientID 780 (Rebecca Adams): clarencethompson@yahoo.com / 0 TotalSalesMade

Key Insights:

1. First-time buyers (TotalSalesMade = 1): These clients have already completed one transaction and represent opportunities for repeat business
2. Prospects (TotalSalesMade = 0): These are registered clients who haven't yet made a purchase

- Email campaigns can be customized differently for each segment:
    - First-time buyers: Retention-focused messaging, loyalty programs, complementary properties
    - Prospects: Conversion-focused messaging, introductory offers, high-visibility properties

Query 2: Not Visited Properties to Focus On for Campaigns and Offers

```
SELECT
    p.PropertyID,
    p.PropertyType,
    p.Location
FROM
    Properties AS p
LEFT JOIN
    Visits AS v
    ON p.PropertyID= v.PropertyID
WHERE
    v.VisitID IS NULL
```

Results:

- PropertyID 108 (Warehouse): New York
- PropertyID 117 (Retail): Chicago
- PropertyID 186 (Office): New York
- PropertyID 610 (Office): Houston
- PropertyID 656 (Retail): Chicago
- PropertyID 682 (Retail): Houston
- PropertyID 842 (Apartment): Miami
- PropertyID 856 (Retail): Houston
- PropertyID 880 (Warehouse): Houston
- PropertyID 970 (Retail): Miami
- Property types include: Warehouse (2), Retail (4), Office (2), Apartment (1)
- Locations include: New York, Chicago, Houston, Miami

Key Insights:

- These 10 properties represent inventory that is generating zero interest, indicating potential issues with:
    - Inadequate marketing visibility
    - Pricing misalignment with market expectations
    - Property features that don't match current demand
    - Possible location or accessibility challenges
- The distribution across property types suggests the issue isn't limited to a specific category
- These properties should be prioritized for:
    - Special promotional offers or pricing adjustments
    - Enhanced visual content (professional photography, virtual tours)
    - Agent incentives for showing these properties
- The relatively small number (10 out of 1000 properties) indicates generally good inventory exposure

Query 3: Month-over-Month (MoM) Percentage Change in Sales

```sql
SELECT
    YEAR(SaleDate) As Year,
    MONTH(SaleDate) AS Month,
    SUM(SalePrice) AS Total_Sales,
    ROUND(
        (SUM(SalePrice) -
                        LAG(SUM(SalePrice)) OVER (ORDER BY YEAR(SaleDate),
MONTH(SaleDate)) ) * 100.0 /
                        NULLIF(LAG(SUM(SalePrice)) OVER (ORDER BY
YEAR(SaleDate), MONTH(SaleDate)), 0)
        , 2) AS MOM_per
FROM
    Sales
GROUP BY
    YEAR(SaleDate),
    MONTH(SaleDate)
ORDER BY
    YEAR(SaleDate),
    MONTH(SaleDate);
```

Results:

- Year 2023 (6): 60985174.00 Total_Sales / 43.400000 MOM_per
- Year 2023 (7): 59098410.00 Total_Sales / -3.090000 MOM_per
- Year 2023 (8): 68023364.00 Total_Sales / 15.100000 MOM_per
- Year 2023 (9): 58733397.00 Total_Sales / -13.660000 MOM_per
- Data spans from May 2023 to May 2025
- Total monthly sales range from approximately $20M to $83M
- MoM percentage changes range from -67.46% to +54.24%

Key Insights:

- Consistent end-of-year strength (December shows strong performance)
- Mid-year fluctuations with both strong gains and significant drops
- August 2024 showed a severe drop (-45.24%), followed by strong recovery in September (+51.98%)

- May 2025 shows an alarming decline (-67.46%), requiring immediate investigation
- Seasonal factors strongly influence the real estate market
- The business may benefit from strategies to smooth revenue across months

Query 4: Year-over-Year (YoY) Percentage Change in Sales

```sql
SELECT
    YEAR(SaleDate) AS Year,
    SUM(SalePrice) AS Total_Sales,
    ROUND(
        (SUM(SalePrice) -
                        LAG(SUM(SalePrice)) OVER (ORDER BY YEAR(SaleDate))) *
100.0 /
                        NULLIF(LAG(SUM(SalePrice)) OVER (ORDER BY
YEAR(SaleDate)), 0)
        , 2) AS YOY_per
FROM
    Sales
GROUP BY
    YEAR(SaleDate)
ORDER BY
    YEAR(SaleDate)
```

Results:

- 2023: $474,210,304 (baseline year)
- 2024: $793,376,420 (67.30% increase from 2023)
- 2025: $271,362,351 (-65.80% decrease from 2024, partial year)

Key Insights:

- The business experienced exceptional growth from 2023 to 2024, with a 67.30% increase in total sales
- This growth could be attributed to:
    - Expanded market presence
    - Increased inventory
    - Improved sales effectiveness
- The apparent decline in 2025 (-65.80%) is misleading since:
    - 2025 data is incomplete (only includes January through May)
    - The partial-year total of $271M represents approximately 34% of 2024's full-year total
    - If the current pace continues, 2025 could approach or exceed 2024's performance
- The strong year-over-year growth in 2024 sets a high benchmark for 2025
- Strategic planning should focus on:
    - Identifying and replicating the success factors from 2024
    - Monitoring monthly performance to ensure 2025 stays on track