INTRODUCTION

Tiffany & Co., an iconic name in luxury jewelry, is facing increasing competition from Cartier, which has recently gained significant market share. To reclaim its leadership in the luxury jewelry market, Tiffany & Co. aims to leverage customer insights, optimize store locations, and elevate customer engagement. This report explores strategic data-driven approaches to achieve these goals.

RESEARCH QUESTIONS:

1. In 2023, Tiffany & Co. experienced a 0.7 percentage points decline in its global branded luxury jewellery market share, while Cartier gained 4 percentage points. With increasing competition, particularly from Cartier, Tiffany seeks to regain market share by understanding customer behavior, optimizing store locations, and improving customer engagement.
2. Tiffany & Co. has recently launched a new Luxury Items business vertical, for ages 25-39 and are looking to open their first store. They want our help to figure out which location this should be.
3. Tiffany & Co. wants to partner with Vera Wang, another luxury brand, for a joint marketing promotion, to promote their wedding ring collections along with Vera Wang's iconic wedding dresses. They want our help to narrow down the location(s) where it would be the best idea to do so.
4. Lululemon is launching a new store "Back to School with Lulu" and planning to target a demographic of school-going population. The products will be mid to high-end in terms of pricing. Where in the United States should they launch their first store?

METHODOLOGY:

QUESTION 1:

Identifying High-Potential Locations

These are some of the locations with high Cartier visits which also fall in high income population, where Tiffany & Co do not have a store.

location_name	street_address	region	cartier_stores	high_income_population
Cartier	**630 N Michigan Ave**	**IL**	**1**	**1760**
Cartier	51 Highland Park Vlg	TX	1	1224
Cartier	2100 Northern Blvd	NY	1	1172

On checking population wise data, where the maximum chunk of high income population stays within these locations, it shows different for different locations. Tiffany & Co wants to actively target age group 25-29 for their new marketing campaigns. Hence, they should open a store on **630 N Michigan Ave in Illinois**

cbg	age_25_29_population	age_30_34_population	age_35_39_population	high_income_population	cartier_visits
170310815002	**1164**	**672**	**316**	**1760**	**1838**
360593019001	40	68	356	1172	504
481130198002	88	232	456	1224	223

Question 2:

New Business Vertical Launch Analysis

We first check regions with a high demographic population (ages 25-39) of high income population. We define high-income as greater than $150k. Based on our query, we have the following locations-We can choose the location with the minimum rent.

poi_cbg	street_address	region	high_income_population	target_demographic_population
250214412021	1 Premium Outlet Blvd	MA	69418	47946
483396917001	9595 Six Pines Dr	TX	67379	65604
170312801002	**500 W Madison St**	**IL**	**67166**	**194469**
170318391001	100 W Randolph St	IL	51216	115940
340170198001	700 Plaza Dr	NJ	48720	52800

We check the locations out of these where number of Luxury Stores are the least. Based on the data, we get-

poi_cbg	street_address	region	total_jewelry_stores
250214412021	1 Premium Outlet Blvd	MA	3
483396917001	9595 Six Pines Dr	TX	0
170312801002	**500 W Madison St**	**IL**	**0**
170318391001	100 W Randolph St	IL	0
340170198001	700 Plaza Dr	NJ	0

Except the first location, it would be alright to open the store anywhere out of the other location. So, we go with **500 w madison st in texas** as the new store location since it has the highest population of high-income target age group.

Question 3:

Joint Promotion with Vera Wang

For the joint promotion, we first find where all the stores of Vera Wang are located in the United States. Now, to decide which store would be the best for promotions, we ask Tiffany & Co about their end goal. What we get to know, is that they want to maximise the impressions of their products in high-income regions (income greater than $150k). As a proxy for impression, we find the total time customers spent in a Vera Wang store by multiplying visits with dwell time. This gives us an idea of how much time customers were engaged in these stores, and gives higher chances of Tiffany's products to make an impression. We then group this data by high income population and find the following insights-

location_name	street_address	city	region	total_visits	avg_dwell_time	engagement	high_income_population
Vera Wang	991 Madison Ave	New York	NY	894	20.25	**18103.5**	648
Vera Wang	400 W North St # 100	Raleigh	NC	738	23.25	17158.5	740
Vera Wang	1468 Northern Blvd	Manhasset	NY	31	175.33333333333300	5435.3333333333300	360
Vera Wang	73 Newbury St	Boston	MA	134	35.666666666666700	4779.333333333330	1002
Vera Wang	945 N Rush St	Chicago	IL	28	86.625	2425.5	1736
Vera Wang	2040 W Gray St Ste 120	Houston	TX	12	21.125	253.5	912

As we can see that, **991 Madison Ave in New York** would be the best place to promote their wedding rings, based on high customer engagement. Please note that this is not an indicator of high sales, because a customer may decide to visit the location and not purchase Tiffany & Co's rings. However, if the end goal is to just promote their products and make impressions in customers' minds, then this strategy will succeed.

Now, to check more information on the store, we can get details about its popularity by day and popularity by hour.

street_address	popularity_by_day	popularity_by_hour
991 Madison Ave	{"Monday":8,"Tuesday":7,"Wednesday":8,"Thursday":10,"Friday":6,"Saturday":4,"Sunday":2}	[0,0,0,0,0,0,0,1,6,6,5,5,9,6,10,10,9,6,5,7,1,0,4,1]

991 Madison Ave	{"Monday":57,"Tuesday":44,"Wednesday":63,"Thursday":59,"Friday":65,"Saturday":36,"Sunday":37}	[13,14,13,13,16,18,24,23,27,48,52,51,63,69,72,72,51,49,38,26,20,21,19,13]
991 Madison Ave	{"Monday":41,"Tuesday":38,"Wednesday":46,"Thursday":51,"Friday":54,"Saturday":54,"Sunday":30}	[8,6,7,7,6,10,15,18,21,33,39,43,56,54,64,65,65,44,45,12,10,14,14,12]
991 Madison Ave	{"Monday":28,"Tuesday":26,"Wednesday":27,"Thursday":28,"Friday":28,"Saturday":16,"Sunday":21}	[3,3,1,2,2,2,7,9,16,21,24,24,37,33,24,24,26,27,18,14,3,5,1,2]

We find that across all 4 months, Thursdays are the busiest. Also, across all months, maximum visitors come between 2-5 PM. Tiffany & Co can ask Vera Wang to either increase visibility of their products on all days between **2-5 PM or on Thursdays**. Visibility can be increased by keeping the products in the shelves near entrance or near billing counter.

Question 4:

Lululemon's New Store Launch

As per requirement from the client, we need to select locations with at least 50k population of the target demographic. They have defined the target demographic as being ages 5-19. We factored in the target income demographic to find out the ideal location for their new store. For their products, based on pricing and past trends, income groups $75k and above would be the best suited.

street_address	city	region	school_age_population	target_income_population
99 Fortin Rd	Kingston	RI	146412	2556
1475 Western Ave	Albany	NY	118678	16856
241 Fort Evans Rd NE	**Leesburg**	**VA**	**110448**	**73750**
4400 Vestal Pkwy E	Binghamton	NY	99840	2544
1906 College Heights Blvd	Bowling Green	KY	86280	360

We find that **241 Fort Evans Rd NE in Leesburg**, VA would be the best area to open the store given it satisfies both conditions of high school-going demographic and target income demographic.

RESULTS:

Question 1: Identifying High-Potential Locations

630 N Michigan Ave in Illinois emerged as the prime candidate for Tiffany & Co.'s new store location, given its significant high-income population and a younger demographic aged 25-29. This area, with its established luxury retail presence, offers a strong opportunity for Tiffany to engage with a dynamic and affluent audience.

Question 2: New Business Vertical Launch Analysis

Clearly explain how you used demographic data to recommend Texas as the best location for the new Luxury Items business vertical. Highlight the potential of reaching younger, high-income consumers in Texas and the value this brings to Tiffany & Co.'s new initiative.

Question 3: Joint Promotion with Vera Wang

991 Madison Ave in New York stands out as the perfect location for Tiffany & Co.'s joint promotion with Vera Wang. High customer engagement at this site indicates a greater potential for Tiffany's wedding ring collection to leave a lasting impression on visitors. By strategically displaying these products, Tiffany can elevate its brand visibility in one of the most prestigious retail districts.

Question 4: Lululemon's New Store Launch

Provide a detailed rationale for choosing Leesburg, VA, as the location for Lululemon's new store targeted at the school-going demographic. Focus on how the local market aligns with Lululemon’s pricing strategy and product appeal.

Conclusion:

- Tiffany & Co. should enhance its customer experience by investing in personalized services and in-store experiences designed for high-income young professionals. In addition, the store placement strategy should prioritize opening new stores in high-potential areas identified through demographic analysis, focusing on regions with a high concentration of the target age group and income demographic to maximize market penetration.
- Looking ahead, Tiffany & Co.'s focus on customer-centric strategies and targeted expansion will be critical to reclaiming its market share in the luxury jewelry sector. By adapting to evolving luxury consumer needs, the brand is poised to strengthen its competitive stance against Cartier and drive sustainable growth in the global jewelry market.
- **Leesburg, VA** emerges as the most promising location for Lululemon's new store targeting the school-going demographic. With its high concentration of students aged 5-19 and a substantial population in the target income bracket of $75k and above, Leesburg offers the ideal market conditions for Lululemon’s mid to high-end products. This strategic location provides the best opportunity for Lululemon to establish a strong presence in the youth segment, aligning with their "Back to School with Lulu" initiative.

Query Log:

Question 1

```
SELECT d.cbg,
SUM(d.`pop_m_25-29` + d.`pop_f_25-29`) AS age_25_29_population,
SUM(d.`pop_m_30-34` + d.`pop_f_30-34`) AS age_30_34_population,
SUM(d.`pop_m_35-39` + d.`pop_f_35-39`) AS age_35_39_population,
SUM(d.`inc_150-200` + d.`inc_gte200`) AS high_income_population,
SUM(v.raw_visit_counts) AS cartier_visits
FROM `nexus-mod-mgmt58200-final.safegraph.visits` v
JOIN `nexus-mod-mgmt58200-final.safegraph.places` p
ON v.safegraph_place_id = p.safegraph_place_id
JOIN `nexus-mod-mgmt58200-final.safegraph.brands` b
ON p.safegraph_brand_ids = b.safegraph_brand_id
JOIN `nexus-mod-mgmt58200-final.safegraph.cbg_demographics` d
ON v.poi_cbg = d.cbg  -- Link visits to demographic data
WHERE b.brand_name = 'Cartier'  -- Focus on Cartier stores
GROUP BY d.cbg
ORDER BY cartier_visits DESC
LIMIT 5;
```

```
SELECT
p.location_name,                -- Store location name
p.street_address,               -- Store street address
p.region,                       -- Store region
COUNT(DISTINCT v.safegraph_place_id) AS cartier_stores,  -- Count of Cartier stores at this location
SUM(d.`inc_150-200` + d.`inc_gte200`) AS high_income_population  -- Sum of high-income population
FROM `nexus-mod-mgmt58200-final.safegraph.visits` v
JOIN `nexus-mod-mgmt58200-final.safegraph.places` p
  ON v.safegraph_place_id = p.safegraph_place_id  -- Join visits to places
JOIN `nexus-mod-mgmt58200-final.safegraph.brands` b
  ON p.safegraph_brand_ids = b.safegraph_brand_id -- Join places to brands
```

```
JOIN `nexus-mod-mgmt58200-final.safegraph.cbg_demographics` d
  ON v.poi_cbg = d.cbg  -- Link visits to cbg_demographics using poi_cbg
WHERE b.brand_name = 'Cartier'  -- Filter for Cartier stores
 AND v.safegraph_place_id NOT IN (
    SELECT v.safegraph_place_id
    FROM `nexus-mod-mgmt58200-final.safegraph.visits` v
    JOIN `nexus-mod-mgmt58200-final.safegraph.places` p
    ON v.safegraph_place_id = p.safegraph_place_id
    JOIN `nexus-mod-mgmt58200-final.safegraph.brands` b
    ON p.safegraph_brand_ids = b.safegraph_brand_id
    WHERE b.brand_name = 'Tiffany & Co.'
 )  -- Exclude locations where Tiffany & Co. has stores
GROUP BY p.location_name, p.street_address, p.region  -- Group by Cartier store details
ORDER BY high_income_population DESC  -- Order by highest high-income population
LIMIT 5;  -- Top 5 locations
```

Question 2

```
SELECT
v.poi_cbg, v.street_address, v.region,
SUM(d.`inc_150-200` + d.`inc_gte200`) AS high_income_population,
-- We have considered high-income as income greater than $150k
SUM(d.`pop_m_25-29` + d.`pop_m_30-34` + d.`pop_m_35-39` + d.`pop_f_25-29` +
d.`pop_f_30-34` + d.`pop_f_35-39`) AS target_demographic_population,
-- We have considered age groups 25-39 since they are the target demographic
FROM `nexus-mod-mgmt58200-final.safegraph.visits` v
JOIN `nexus-mod-mgmt58200-final.safegraph.cbg_demographics` d
ON v.poi_cbg = d.cbg
where v.street_address != "Unknown"
-- To remove "Unknown" location which biases our results
GROUP BY 1,2,3
ORDER BY 4 DESC,5 DESC
```

```
-- Order by highest population
LIMIT 5;
```

Question 3

```
SELECT
  p.location_name,
  p.street_address,
  p.city,
  p.region,
  SUM(v.raw_visit_counts) AS total_visits,
  AVG(v.median_dwell) AS avg_dwell_time,
  SUM(v.raw_visit_counts)*AVG(v.median_dwell) AS engagement,
  SUM(d.`inc_150-200` + d.`inc_gte200`) AS high_income_population,
FROM `nexus-mod-mgmt58200-final.safegraph.visits` v
JOIN `nexus-mod-mgmt58200-final.safegraph.places` p
  ON v.safegraph_place_id = p.safegraph_place_id
JOIN `nexus-mod-mgmt58200-final.safegraph.brands` b
  ON p.safegraph_brand_ids = b.safegraph_brand_id
JOIN `nexus-mod-mgmt58200-final.safegraph.cbg_demographics` d
  ON v.poi_cbg = d.cbg  -- Link visits to demographic data
WHERE b.brand_name = 'Vera Wang'
GROUP BY p.location_name, p.street_address, p.city, p.region
ORDER BY engagement DESC, high_income_population DESC
LIMIT 10;

SELECT
 p.location_name,
 p.street_address,
 p.city,
 p.region,
 v.popularity_by_day,
```

```
 v.popularity_by_hour
FROM `nexus-mod-mgmt58200-final.safegraph.visits` v
JOIN `nexus-mod-mgmt58200-final.safegraph.places` p
 ON v.safegraph_place_id = p.safegraph_place_id
JOIN `nexus-mod-mgmt58200-final.safegraph.brands` b
 ON p.safegraph_brand_ids = b.safegraph_brand_id
JOIN `nexus-mod-mgmt58200-final.safegraph.cbg_demographics` d
 ON v.poi_cbg = d.cbg  -- Link visits to demographic data
WHERE b.brand_name = 'Vera Wang'
AND p.street_address = "991 Madison Ave"
AND p.city = "New York";
```

Question 4

```
SELECT p.street_address, p.city,p.region,
SUM(d.`pop_m_5-9` + d.`pop_m_10-14` + d.`pop_m_15-17` + d.`pop_m_18-19`
   + d.`pop_f_5-9` + d.`pop_f_10-14` + d.`pop_f_15-17` + d.`pop_f_18-19`) AS
school_age_population,
SUM(d.`inc_75-100` + d.`inc_100-125` + d.`inc_125-150` + d.`inc_150-200` +
d.`inc_gte200`) AS target_income_population
FROM `nexus-mod-mgmt58200-final.safegraph.places` p
JOIN `nexus-mod-mgmt58200-final.safegraph.visits` v
ON p.safegraph_place_id = v.safegraph_place_id  -- Join places and visits
JOIN `nexus-mod-mgmt58200-final.safegraph.cbg_demographics` d
ON v.poi_cbg = d.cbg  -- Link visits to demographic data
WHERE p.street_address != "Unknown"
GROUP BY p.street_address, p.city, p.region
HAVING school_age_population > 50000  -- Ensure we have the required school-going
population
AND target_income_population>0  -- Remove null cases
ORDER BY school_age_population DESC, target_income_population DESC
LIMIT 5;
```