

Wedding Videography Business Project

By: Austin Shirk

This project aims to provide valuable insights into revenue trends, employee activity, popular wedding video packages and other key metrics through a series of complex SQL queries.

Note: *Data was created by a randomizer. No data was taken from a real wedding videography business. *

The queries executed include the following:

1. Calculate total revenue by month for the latest year
2. Calculate total revenue for each package type over the past 12 months
3. Identify videographers who shot the most weddings for each of the past 3 years
4. Compare the number of weddings held in Q1 (January-March) and Q4 (October-December) for each year
5. Identify the month with the most weddings for each year
6. For each year, find the month with the highest and lowest number of bookings, along with the average package price for each month
7. Show email, phone number, full name, and wedding date for clients with Florida or Pennsylvania weddings
8. Identify the most popular wedding video package for each year
9. Identify the month with the highest MoM increase for each year

Tables:

```
3 • Ⓛ CREATE TABLE customers (
4     customer_id INT,
5     first_name VARCHAR(255),
6     last_name VARCHAR(255),
7     home_state VARCHAR(255),
8     phone_number VARCHAR(255),
9     email VARCHAR(255),
10    PRIMARY KEY (customer_id)
11 );
12
13 • Ⓛ CREATE TABLE team (
14     videographer_id INT,
15     first_name VARCHAR(255),
16     last_name VARCHAR(255),
17     PRIMARY KEY (videographer_id)
18 );
19
20 • Ⓛ CREATE TABLE orders (
21     order_id INT,
22     customer_id INT,
23     package_type INT,
24     wedding_date VARCHAR(255),
25     booked_date VARCHAR(255),
26     order_amount FLOAT,
27     venue_state VARCHAR(255),
28     videographer_id INT,
29     videographer_amount FLOAT,
30     hours_of_coverage FLOAT,
31     PRIMARY KEY (order_id),
32     FOREIGN KEY (customer_id) REFERENCES customers(customer_id),
33     FOREIGN KEY (videographer_id) REFERENCES team(videographer_id)
34 );
```

1. Calculate total revenue by month for the latest year, sorted by revenue in descending order

```
3 *   SELECT
4       SUM(order_amount) AS 'Total Revenue',
5       DATE_FORMAT(booked_date, '%M') AS month,
6       YEAR(booked_date) AS year
7   FROM orders
8 WHERE YEAR(booked_date) = YEAR((SELECT MAX(booked_date) FROM orders))
9 GROUP BY 2, 3
10 ORDER BY SUM(order_amount) DESC
```

Output:

Total Revenue	month	year
51520	June	2023
45200	August	2023
41010	April	2023
38490	July	2023
35690	October	2023
35610	March	2023
35210	May	2023
34859	September	2023
32590	February	2023
28235	December	2023
26550	November	2023
22750	January	2023

2. Calculate total revenue for each package type over the past 12 months

- a. sorted by revenue in descending order

```
16 •  SELECT
17         SUM(order_amount) AS order_amount,
18         package_type
19     FROM orders
20    WHERE booked_date >= DATE_SUB((SELECT MAX(booked_date) FROM orders), INTERVAL 12 Month)
21    GROUP BY package_type
22    ORDER BY SUM(order_amount) DESC
```

Output:

package_type	Total Revenue
3	349105
2	82554

3. Identify videographers who shot the most weddings for each of the past 3 years (based on wedding_date)

- a. Additionally, output the number of weddings and total videographer pay

```
47 • Ⓛ WITH CTE AS (
48     SELECT
49         t.first_name, t.last_name, o.videographer_id,
50         COUNT(o.order_id) AS wedding_count,
51         YEAR(o.wedding_date) AS year,
52         SUM(o.videographer_amount) AS videographer_total_amount,
53         RANK() OVER (PARTITION BY YEAR(o.wedding_date) ORDER BY COUNT(o.order_id) DESC) AS wedding_count_rank
54     FROM orders o
55     JOIN team t USING (videographer_id)
56     WHERE YEAR(o.wedding_date) >= YEAR((SELECT MAX(wedding_date) FROM orders)) - 2
57     GROUP BY videographer_id, YEAR(o.wedding_date)
58 )
59
60     SELECT year, first_name, last_name, videographer_id, wedding_count, videographer_total_amount
61     FROM CTE
62     WHERE wedding_count_rank = 1
63     ORDER BY year;
```

Output:

year	first_name	last_name	videographer_id	wedding_count	videographer_total_amou...
2022	Renee	E	9	25	30150
2023	Renee	E	9	15	17850
2024	Cameron	Z	6	26	34050

4. Compare the number of weddings held in Q1 (January-March) and Q4 (October-December) for each year

```
67 • SELECT
68     YEAR(wedding_date) AS 'Year',
69     SUM(CASE WHEN MONTH(wedding_date) IN (1,2,3) THEN 1 ELSE 0 END) AS 'Q1 Wedding Count',
70     SUM(CASE WHEN MONTH(wedding_date) IN (10,11,12) THEN 1 ELSE 0 END) AS 'Q4 Wedding Count'
71 FROM
72     orders
73 GROUP BY YEAR(wedding_date)
74 ORDER BY 1;
```

Output:

Year	Q1 Wedding Count	Q4 Wedding Count
2021	17	22
2022	17	19
2023	14	16
2024	13	28

5. Identify the month with the most weddings for each year

```
79 • WITH CTE AS (
80     SELECT
81         COUNT(order_id) AS wedding_count,
82         RANK() OVER (PARTITION BY YEAR(wedding_date) ORDER BY COUNT(order_id) DESC) AS count_ranking,
83         MONTH(wedding_date) AS month,
84         YEAR(wedding_date) AS year
85     FROM
86     orders
87     GROUP BY MONTH(wedding_date), YEAR(wedding_date)
88 )
89
90     SELECT wedding_count AS "Wedding Count", month AS "Month", year AS "Year"
91     FROM CTE
92     WHERE count_ranking = 1;
```

Output:

Wedding Count	Month	Year
13	7	2021
12	7	2022
11	7	2023
14	10	2024

6. For each year, find the month with the highest and lowest number of bookings, along with the average package price for each month.

```

100 • WITH rank_months_cte AS (
101     SELECT
102         DATE_FORMAT(booked_date, '%M') AS month,
103         YEAR(booked_date) AS year,
104         RANK() OVER (PARTITION BY YEAR(booked_date) ORDER BY COUNT(order_id) DESC) as count_ranking,
105         AVG(order_amount) AS avg_order_amount,
106         COUNT(order_id) AS booking_count
107     FROM orders
108     GROUP BY month, YEAR(booked_date)
109 ), max_min_cte AS(
110     SELECT
111         year,
112         MAX(booking_count) OVER (PARTITION BY year) AS max_month_bookings,
113         MIN(booking_count) OVER (PARTITION BY year) AS min_month_bookings,
114         CASE WHEN count_ranking = 1 THEN month END AS highest_booking_month,
115         CASE WHEN count_ranking = MAX(count_ranking) OVER (PARTITION BY year) THEN month END AS lowest_booking_month,
116         ROUND(avg_order_amount, 2) AS avg_package_price
117     FROM rank_months_cte
118
119     SELECT *
120     FROM max_min_cte
121     WHERE highest_booking_month IS NOT NULL OR lowest_booking_month IS NOT NULL;

```

Output:

year	max_month_bookings	min_month_bookings	highest_booking_month	lowest_booking_month	avg_package_price
2020	11	6	June	NULL	1991.82
2020	11	6	NULL	February	2060.83
2021	11	4	June	NULL	3605.91
2021	11	4	August	NULL	2800
2021	11	4	NULL	February	3401.25
2022	11	4	April	NULL	3994.09
2022	11	4	NULL	February	3990
2022	11	4	NULL	January	3945
2023	11	5	June	NULL	4683.64
2023	11	5	NULL	January	4550

7. Show email, phone number, full name, and wedding date for clients with Florida or Pennsylvania weddings, sorted by state then first_name (ascending).

```

123 •  SELECT c.first_name, c.last_name, c.email, c.phone_number, o.wedding_date, o.venue_state
124    FROM orders o
125    JOIN customers c USING (customer_id)
126   WHERE o.venue_state IN ('Florida', 'Pennsylvania')
127   ORDER BY o.venue_state, c.first_name;

```

Output:

first_name	last_name	email	phone_number	wedding_date	venue_state
Alex	B	test159@example.com	555-1158	2022-08-12	Florida
Alexander	W	test25@example.com	555-1024	2021-04-03	Florida
Alexander	G	test30@example.com	555-1029	2021-04-28	Florida
Ava	M	test184@example.com	555-1183	2022-06-09	Florida
Ava	C	test61@example.com	555-1060	2021-07-01	Florida
Avery	J	test5@example.com	555-1004	2021-01-12	Florida
Benjamin	T	test27@example.com	555-1026	2021-04-24	Florida
Benjamin	H	test84@example.com	555-1083	2021-10-28	Florida
David	B	test100@example.com	555-1099	2021-12-31	Florida
David	H	test59@example.com	555-1058	2021-07-08	Florida
Eleanor	B	test113@example.com	555-1112	2022-03-31	Florida
Eleanor	J	test98@example.com	555-1097	2021-09-26	Florida
Ethan	S	test247@example.com	555-1246	2023-01-21	Florida
Evelyn	L	test174@example.com	555-1173	2022-10-07	Florida
Finn	H	test234@example.com	555-1233	2023-12-16	Florida
Finn	J	test251@example.com	555-1250	2023-07-30	Florida
Isla	B	test104@example.com	555-1103	2022-06-04	Florida
Isla	W	test43@example.com	555-1042	2021-06-30	Florida
Isla	L	test237@example.com	555-1236	2023-11-04	Florida
Luna	A	test129@example.com	555-1128	2022-05-14	Florida
Penelope	M	test115@example.com	555-1114	2022-03-18	Florida
Penelope	J	test339@example.com	555-1338	2024-09-06	Florida
Rachel	N	test361@example.com	555-1360	2024-12-06	Florida
Sadie	G	test69@example.com	555-1068	2021-09-04	Florida
Sadie	L	test16@example.com	555-1015	2021-03-19	Florida
Scarlett	H	test252@example.com	555-1251	2023-02-24	Florida
Sebastian	W	test205@example.com	555-1204	2023-06-03	Florida
Sofia	A	test93@example.com	555-1092	2021-12-10	Florida
William	M	test73@example.com	555-1072	2021-09-18	Florida
Christopher	D	test94@example.com	555-1093	2021-07-08	Pennsylvania
Leo	A	test240@example.com	555-1239	2023-09-07	Pennsylvania
Riley	W	test145@example.com	555-1144	2022-07-01	Pennsylvania
Scarlett	M	test186@example.com	555-1185	2022-07-09	Pennsylvania
Violet	A	test47@example.com	555-1046	2021-06-11	Pennsylvania

8. Identify the most popular wedding video package for each year

- Display the package name instead of the package_type

Package Key:

package_type	package_name
1	The Memoir
2	The Standard
3	The Luxury

```
137 • ⊖ WITH CTE AS (
138     SELECT
139         COUNT(order_id) AS wedding_count,
140     CASE
141         WHEN package_type = 1 THEN 'The Memoir'
142         WHEN package_type = 2 THEN 'The Standard'
143         WHEN package_type = 3 THEN 'The Luxury'
144     END AS package_name,
145     RANK() OVER (PARTITION BY YEAR(booked_date) ORDER BY COUNT(order_id) DESC) AS package_rank,
146     YEAR(booked_date) AS year
147     FROM orders
148     GROUP BY package_type, YEAR(booked_date)
149     ORDER BY YEAR(booked_date) DESC
150 )
151     SELECT package_name AS 'Package Name', wedding_count AS 'Number of Weddings', year AS 'Year'
152     FROM CTE
153     WHERE package_rank = 1;
```

Output:

	Package Name	Number of Weddings	Year
	The Luxury	74	2023
	The Standard	75	2022
	The Standard	46	2021
	The Memoir	79	2020

9. Identify the month with the highest MoM increase for each year

MoM formula:

MoM = month_total_package_amount - previous_month_total_package_amount

```

160 * Ⓛ WITH MonthlyTotalAmount AS (
161     SELECT
162         SUM(order_amount) total_month_amount,
163         month(booked_date) AS month,
164         year(booked_date) AS year
165     FROM orders
166     GROUP BY year(booked_date), month(booked_date)
167     ORDER BY year(booked_date), month(booked_date)
168 ),
169 Ⓛ MoMComparison AS (
170     SELECT
171         total_month_amount AS month_total,
172         lag(total_month_amount) OVER () AS previous_month_total,
173         year, month,
174         total_month_amount-lag(total_month_amount) OVER () AS mom
175     FROM MonthlyTotalAmount
176 )
177
178     SELECT month, year, mom AS 'MoM Increase', month_total, previous_month_total
179     FROM
180     Ⓛ (SELECT
181         RANK() OVER (PARTITION BY year ORDER BY mom DESC) as mom_rank,
182         mom, year, month, month_total, previous_month_total
183     FROM MoMComparison) as subquery
184     WHERE mom_rank = 1

```

Output:

	month	year	MoM Increase	month_total	previous_month_total
	6	2020	5350	21910	16560
	3	2021	12915	26520	13605
	4	2022	20315	43935	23620
	6	2023	16310	51520	35210