Q1) When is the peak season of our ecommerce ?

```sql
SELECT
    TO_CHAR(order_date, 'Month') AS month,
    EXTRACT(MONTH FROM order_date) AS month_number,
    COUNT(order_id) AS total_orders
FROM
    fact_orders
GROUP BY
    TO_CHAR(order_date, 'Month'),
    EXTRACT(MONTH FROM order_date)
ORDER BY
    total_orders DESC;
```

Data Output | Messages | Notifications

Showing rows: 1 to 12 | Page No: 1 of 1

	month text	month_number numeric	total_orders bigint
1	August	8	12688
2	May	5	12676
3	July	7	12243
4	March	3	11793
5	June	6	11218
6	April	4	11137

Total rows: 12 | Query complete 00:00:01.036 | CRLF | Ln 11, Col 23

Q2) What time users are most likely make an order or using the ecommerce app?

```sql
--What time users are most likely make an order or using the ecommerce app?
SELECT
    TO_CHAR(order_date, 'HH12 AM') AS hour_of_day,
    COUNT(order_id) AS total_orders
FROM
    fact_orders
GROUP BY
    TO_CHAR(order_date, 'HH12 AM'),
    EXTRACT(HOUR FROM order_date)
ORDER BY
    total_orders DESC;
```

Data Output | Messages | Notifications

Showing rows: 1 to 24 | Page No: 1 of 1

	hour_of_day text	total_orders bigint
1	04 PM	8022
2	02 PM	7951
3	11 AM	7809
4	01 PM	7735
5	03 PM	7654
6	10 AM	7377

File saved successfully.

Q3) What is the preferred way to pay in the ecommerce?

```sql
SELECT
    payment_type,
    COUNT(order_id) AS total_orders
FROM
    fact_orders
WHERE
    payment_type IS NOT NULL
GROUP BY
    payment_type
ORDER BY
    total_orders DESC;
```

Data Output | Messages | Notifications

Showing rows: 1 to 4 | Page No: 1 of 1

	payment_type text	total_orders bigint
1	credit_card	87266
2	blipay	23018
3	voucher	6332
4	debit_card	1699

Total rows: 4 | Query complete 00:00:00.291 | CRLF | Ln 5, Col 16

Q4) How many installment is usually done when paying in the ecommerce?

```sql
--How many installment is usually done when paying in the ecommerce?
SELECT
    ROUND(AVG(payment_installments)::NUMERIC, 2) AS average_installments
FROM
    fact_orders;
```

Data Output | Messages | Notifications

Showing rows: 1 to 1 | Page No: 1 of 1

	average_installments numeric
1	2.94

Total rows: 1 | Query complete 00:00:00.466 | CRLF | Ln 5, Col 17

Q5) What is the average spending time for user for our ecommerce?

```sql
-- What is the average spending time for user for our ecommerce?
SELECT
    ROUND(AVG(EXTRACT(EPOCH FROM (delivered_date - order_date)) / 3600), 2) AS average_spending_time_hours,
    ROUND(AVG(EXTRACT(EPOCH FROM (delivered_date - order_date)) / 3600/24), 2) AS average_spending_time_days
FROM
    fact_orders
WHERE
    delivered_date IS NOT NULL
    AND order_date IS NOT NULL;
```

Data Output | Messages | Notifications

Showing rows: 1 to 1 | Page No: 1 of 1

	average_spending_time_hours numeric	average_spending_time_days numeric
1	299.72	12.49

Total rows: 1 | Query complete 00:00:00.373 | CRLF | Ln 7, Col 7

Q6) What is the frequency of purchase on each state?

```sql
--What is the frequency of purchase on each state?
SELECT
    u.customer_state AS state,
    COUNT(o.order_id) AS Purchase_Frequency
FROM
    fact_orders o
JOIN
    dim_users u
ON
    o.user_name=u.user_name
GROUP BY
    u.customer_state
ORDER BY
    Purchase_Frequency DESC;
```

Data Output | Messages | Notifications

Showing rows: 1 to 34 | Page No: 1 of 1

	state text	purchase_frequency bigint
1	BANTEN	25414
2	JAWA BARAT	15161
3	DKI JAKARTA	15076
4	JAWA TENGAH	10155
5	JAWA TIMUR	9981
6	SUMATERA UTARA	4749

Q7) Which logistic route that have heavy traffic in our ecommerce?

Query | Query History

```sql
-- Which logistic route that have heavy traffic in our ecommerce?
SELECT
    s.seller_city AS seller_city,
    u.customer_city AS customer_city,
    COUNT(o.order_id) AS total_orders
FROM
    fact_orders o
JOIN
    dim_sellers s ON o.seller_id = s.seller_id
JOIN
    dim_users u ON o.user_name = u.user_name
GROUP BY
    s.seller_city, u.customer_city
ORDER BY
    total_orders DESC
LIMIT 20;
```

Data Output | Messages | Notifications

Showing rows: 1 to 20 | Page No: 1 of 1

	seller_city text	customer_city text	total_orders bigint
15	KOTA TANGERANG	KOTA TANGERANG SELATAN	387
16	KOTA MAKASSAR	KOTA TANGERANG	378
17	KABUPATEN BANYUMAS	KOTA TANGERANG	363
18	KOTA TANGERANG	KOTA BEKASI	351
19	KOTA JAKARTA BARAT	KOTA TANGERANG	342
20	KOTA JAKARTA BARAT	KOTA JAKARTA BARAT	338

Q8) How many late delivered order in our ecommerce? Are late order affecting the customer satisfaction?

Query | Query History

```sql
--How many late delivered order in our ecommerce? Are late order affecting the customer satisfaction?
SELECT
    CASE
        WHEN delivered_date > estimated_time_delivery THEN 'Late'
        ELSE 'On-Time'
    END AS delivery_status,
    ROUND(AVG(feedback_score), 2) AS average_feedback_score,
    COUNT(order_id) AS total_orders
FROM
    fact_orders
WHERE
    feedback_score IS NOT NULL
    AND delivered_date IS NOT NULL
    AND estimated_time_delivery IS NOT NULL
GROUP BY
    delivery_status;
```

Data Output | Messages | Notifications

Showing rows: 1 to 2 | Page No: 1 of 1

	delivery_status text	average_feedback_score numeric	total_orders bigint
1	Late	2.53	9068
2	On-Time	4.20	106662

Total rows: 2 | Query complete 00:00:00.648 | CRLF | Ln 8, Col 36

Q9) How long are the delay for delivery / shipping process in each state?

Query Query History

```sql
-- How long are the delay for delivery / shipping process in each state?
SELECT
    u.customer_state AS state,
    ROUND(AVG(EXTRACT(EPOCH FROM (delivered_date - pickup_date)) / 86400), 2) AS avg_shipping_time_days
FROM
    fact_orders o
JOIN
    dim_users u ON o.user_name = u.user_name
WHERE
    delivered_date IS NOT NULL
    AND estimated_time_delivery IS NOT NULL
    AND pickup_date IS NOT NULL
GROUP BY
    u.customer_state
ORDER BY
    avg_shipping_time_days DESC;
```

Data Output Messages Notifications

Showing rows: 1 to 34 Page No: 1 of 1

	state text	avg_shipping_time_days numeric
1	KEPULAUAN BANGKA BELITUNG	12.57
2	BALI	12.23
3	SULAWESI BARAT	12.07
4	KEPULAUAN RIAU	12.05
5	SULAWESI UTARA	11.75
6	SULAWESI TENGGARA	11.73

Total rows: 34 Query complete 00:00:00.572 CRLF Ln 4, Col 71

Q10) How long are the difference between estimated delivery time and actual delivery time in each state?

Query Query History

```sql
SELECT
    u.customer_state AS state,
    ROUND(AVG(ABS(EXTRACT(EPOCH FROM (delivered_date - estimated_time_delivery)) / 86400)), 2) AS avg_delivery_difference_days,
    CASE
        WHEN AVG(EXTRACT(EPOCH FROM (delivered_date - estimated_time_delivery)) / 86400) > 0 THEN 'Late'
        ELSE 'Early'
    END AS delivery_status
FROM
    fact_orders o
JOIN
    dim_users u ON o.user_name = u.user_name
WHERE
    delivered_date IS NOT NULL
    AND estimated_time_delivery IS NOT NULL
GROUP BY
    u.customer_state
```

Data Output Messages Notifications

Showing rows: 1 to 34 Page No: 1 of 1

	state text	avg_delivery_difference_days numeric	delivery_status text
1	ACEH	14.18	Early
2	BALI	13.74	Early
3	BANTEN	11.41	Early
4	BENGKULU	14.32	Early
5	DI YOGYAKARTA	12.03	Early
6	DKI JAKARTA	14.25	Early