**Basic Data Exploration**

1. What is the total number of orders in the database?
2. What is the date range of orders (earliest and latest order dates)?
3. How many unique customers are in the dataset?
4. How many unique products/models are available?
5. What are all the distinct ship modes available?
6. What are all the distinct customer segments?
7. What are all the distinct panel types?
8. How many orders are there per order priority level?
9. What is the distribution of orders across different regions?
10. How many unique cities and states are represented?

**Sales Analysis**

1. What is the total sales revenue across all orders?
2. What is the average order value?
3. What are the top 10 orders by total sales?
4. What is the total sales by year?
5. What is the total sales by month?
6. What is the total sales by quarter?
7. What is the sales trend over time (monthly/quarterly)?
8. What is the total sales by customer segment?
9. What is the total sales by region?
10. What is the total sales by country?
11. What is the total sales by state?
12. What is the total sales by city (top 20)?
13. What is the total sales by product model?
14. What is the total sales by panel type?
15. What is the total sales by capacity range (kW)?

**Profitability Analysis**

1. What is the total profit across all orders?
2. What is the average profit per order?
3. What is the overall profit margin percentage?
4. What is the profit margin by customer segment?
5. What is the profit margin by region?
6. What is the profit margin by product model?
7. What is the profit margin by panel type?
8. Which are the top 10 most profitable orders?
9. Which are the top 10 least profitable orders?
10. What is the profit by ship mode?
11. What is the correlation between discount and profit?
12. What is the profit trend over time?
13. Which customers generate the highest profit?
14. Which products have negative profit margins?
15. What is the profit per kW by panel type?

**Customer Analysis**

1. Who are the top 10 customers by total sales?
2. Who are the top 10 customers by total profit?
3. How many orders does each customer have?
4. What is the average order value per customer?
5. What is the customer distribution across segments?
6. Which customer segment has the highest average order value?
7. What is the repeat customer rate?
8. How many one-time vs. repeat customers are there?
9. What is the average number of orders per customer?
10. Which customers order most frequently?
11. What is the customer lifetime value (top 20)?
12. Which companies place the largest orders?
13. What is the geographic distribution of customers?
14. Which customer segment grows fastest over time?

**Product Analysis**

1. What are the top 10 best-selling products by quantity?
2. What are the top 10 best-selling products by revenue?
3. What is the average unit price by product model?
4. What is the average unit price by panel type?
5. Which product has the highest profit margin?
6. What is the quantity sold by panel type?
7. What is the quantity sold by capacity (kW)?
8. What is the most popular capacity range?
9. Which products are sold together most frequently?
10. What is the price range for each panel type?
11. Which products receive the highest discounts?
12. What is the sales mix (percentage) by panel type?
13. Which products have declining sales over time?
14. Which products have growing sales over time?

**Discount Analysis**

1. What is the average discount percentage across all orders?
2. What is the total revenue lost to discounts?
3. What is the discount distribution (0%, 1-10%, 11-20%, etc.)?
4. Which customer segment receives the highest discounts?
5. Which region receives the highest average discount?
6. What is the relationship between discount and order quantity?
7. Do higher discounts lead to higher order volumes?
8. What is the discount percentage by product type?
9. Which customers receive the highest discounts?
10. What is the impact of discount on profit margin?
11. What is the optimal discount range for maximizing profit?

**Shipping & Operations**

1. What is the average shipping time (Ship\_Date - Order\_Date)?
2. What is the shipping time by ship mode?
3. Which ship mode is used most frequently?
4. What is the total shipping cost by ship mode?
5. What is the average shipping cost per order?
6. What is the shipping cost as a percentage of sales?
7. Which orders took longest to ship?
8. What percentage of orders ship within 2 days? 5 days? 7 days?
9. What is the on-time delivery rate by order priority?
10. Do high-priority orders ship faster?
11. What is the shipping cost by region?
12. What is the relationship between order value and shipping cost?
13. Which ship mode is most cost-effective?
14. What is the average shipping cost per kW shipped?

**Geographic Analysis**

1. Which region generates the most revenue?
2. Which region is most profitable?
3. What is the sales growth rate by region?
4. Which states have the highest sales?
5. Which cities have the highest sales?
6. What is the average order size by region?
7. Which regions prefer which panel types?
8. What is the market penetration by state (number of customers)?
9. Which geographic areas are underserved?
10. What is the sales density by city?
11. Which country has the best profit margins?

**Time-Based Analysis**

1. What day of the week has the most orders?
2. What month has the highest sales?
3. Is there seasonality in solar panel sales?
4. What is the year-over-year growth rate?
5. What is the month-over-month growth rate?
6. Which quarter performs best historically?
7. What is the sales velocity trend?
8. How long is the average sales cycle?
9. What is the order frequency pattern?

**Advanced Analytics**

1. What is the RFM (Recency, Frequency, Monetary) analysis of customers?
2. What is the customer churn rate?
3. What is the cohort analysis of customers by first purchase date?
4. What is the correlation between capacity (kW) and price?
5. What is the basket analysis (which products/capacities are bought together)?
6. What is the customer acquisition trend over time?
7. Which customer segment has the best retention rate?
8. What is the average revenue per customer by segment?
9. What is the inventory turnover by product?
10. What are the outliers in terms of order value?
11. What is the Pareto analysis (80/20 rule) for customers and products?
12. What is the price elasticity by product type?

**Segment-Specific Analysis**

1. What is the average capacity (kW) ordered by customer segment?
2. Which segment prefers which panel type?
3. What is the average discount by segment?
4. What is the segment distribution by region?
5. Which segment has the fastest order fulfillment?

**Comparative Analysis**

1. Sales comparison: This year vs last year (same period)
2. Profit comparison: This quarter vs last quarter
3. Performance comparison: Region A vs Region B
4. Product comparison: Panel Type A vs Panel Type B profitability
5. Customer segment comparison: Which segment is growing fastest?