Problem Statements with Queries:

**1. Retrieve all companies with high supply chain agility.**

**2. Find companies with an operational efficiency score above 85.**

**3. List companies with inventory turnover ratios below 6.**

**4. Get the average lead time across all companies.**

**5. Find companies using "Blockchain" technology.**

**6. Rank companies by their revenue growth rate.**

**7. Count companies with sustainability practices marked as "Advanced".**

**8. Identify companies with supply chain risk above 10%.**

**9. Retrieve companies with high supplier collaboration levels.**

**10. Find the maximum order fulfillment rate across all companies.**

**11. List companies with transportation cost efficiency below 70%.**

**12. Retrieve companies with low customer satisfaction (below 85%).**

**13. Calculate the average environmental impact score.**

**14. Find companies with a high supply chain resilience score**.

**15. Retrieve the supplier count for companies with high complexity index.**

**16. List companies whose cost of goods sold (COGS) exceeds $500B.**

**17. Find companies with lead time variability exceeding 10 days.**

**18. Get companies with inventory accuracy below 90%.**

**19. Count companies with medium supply chain integration levels.**

**20. Rank companies based on their supplier relationship score.**

**21. Find companies using both ERP and AI technologies.**

**22. Retrieve companies with supply chain risk below 5%.**

**23. Find companies with supply chain practices labeled as "Agile SCM".**

**24. Calculate the total number of suppliers across all companies.**

**25. Get companies with resilience and efficiency scores both above 85.**

26**. Identify companies where the supply chain risk is high (above 10%) but the operational efficiency is also high (above 80), and calculate the average inventory turnover ratio for these companies.**

**27. For each type of supply chain practice, calculate the total number of suppliers and the average lead time, sorted by the highest total number of suppliers.**

**28. Find the top 3 companies with the highest revenue growth rate and their corresponding sustainability practices and environmental impact scores.**

**29. Identify companies with above-average order fulfillment rates and below-average supply chain risk, grouped by their supply chain agility.**

**30. Determine the percentage of companies using blockchain technology whose inventory turnover ratio is above 7.**

**31. Find the company with the most consistent supplier lead time (lowest variability) and its respective operational efficiency score and cost of goods sold.**

**32. Calculate the total revenue growth rate for companies with advanced sustainability practices and medium supply chain integration levels.**

**33. Group companies by their supply chain complexity index and calculate the average customer satisfaction and transportation cost efficiency for each group.**

**34. Find companies with a combination of the following criteria:**

**35. Calculate the total operational efficiency score for companies with both high supply chain agility and high supply chain integration levels, grouped by SCM practices.**

**36. Determine which companies have an above-average supply chain resilience score and a below-average cost of goods sold (COGS).**

**37. Identify the top 3 companies with the best balance between customer satisfaction and order fulfillment rates.**

Interpretation and Business Recommendation

**Category: Performance Metrics**

1. **Retrieve all companies with high supply chain agility.**
   * **Interpretation**: Identify companies excelling in quick adaptation to market changes.
   * **Recommendation**: Benchmark their agility practices to improve adaptability.
2. **Find companies with an operational efficiency score above 85.**
   * **Interpretation**: Highlight companies that maximize resources for optimal outcomes.
   * **Recommendation**: Study their strategies to refine resource allocation and workflow.
3. **List companies with inventory turnover ratios below 6.**
   * **Interpretation**: Pinpoint slow-moving inventory, indicating potential overstock or low sales.
   * **Recommendation**: Optimize inventory levels and implement better demand forecasting.
4. **Calculate the total operational efficiency score for companies with both high supply chain agility and high supply chain integration levels, grouped by SCM practices.**
   * **Interpretation**: Understand how agility and integration enhance efficiency.
   * **Recommendation**: Promote SCM practices fostering integration and agility.

**Category: Risk Management**

1. **Identify companies with supply chain risk above 10%.**
   * **Interpretation**: Flag high-risk companies prone to disruptions.
   * **Recommendation**: Develop risk-mitigation plans like diversification or risk-sharing.
2. **Retrieve companies with supply chain risk below 5%.**
   * **Interpretation**: Highlight low-risk companies as benchmarks for best practices.
   * **Recommendation**: Study these companies for risk-mitigation strategies.
3. **Identify companies where the supply chain risk is high (above 10%) but the operational efficiency is also high (above 80), and calculate the average inventory turnover ratio.**
   * **Interpretation**: Find companies managing risk without compromising efficiency.

**Category: Sustainability and Environmental Impact**

1. **Count companies with sustainability practices marked as "Advanced".**
   * **Interpretation**: Measure industry commitment to sustainability.
   * **Recommendation**: Promote adoption of advanced sustainability practices.
2. **Calculate the average environmental impact score.**
   * **Interpretation**: Assess the collective environmental footprint of companies.
   * **Recommendation**: Encourage green initiatives to reduce the impact.
3. **Find companies with a combination of:**
   * **Revenue growth rate greater than 10.**
   * **Environmental impact score below 75.**
   * **High supplier collaboration level.**
   * **Interpretation**: Highlight financially successful, environmentally responsible companies with strong partnerships.
   * **Recommendation**: Showcase these companies as models for holistic growth.

**Category: Supplier and Transportation Metrics**

1. **Retrieve companies with high supplier collaboration levels.**
   * **Interpretation**: Identify companies with effective supplier relationships.
   * **Recommendation**: Encourage better supplier collaboration through technology and communication.
2. **For each type of supply chain practice, calculate the total number of suppliers and the average lead time, sorted by the highest total number of suppliers.**
   * **Interpretation**: Understand supplier distribution across practices.
   * **Recommendation**: Allocate resources toward practices with high supplier participation.
3. **Find the company with the most consistent supplier lead time (lowest variability) and its respective operational efficiency score and cost of goods sold.**
   * **Interpretation**: Identify companies with reliable supplier relationships.
   * **Recommendation**: Promote stable supply chains for reduced lead time variability.
4. **Group companies by their supply chain complexity index and calculate the average customer satisfaction and transportation cost efficiency for each group.**
   * **Interpretation**: Analyze how complexity affects satisfaction and costs.
   * **Recommendation**: Simplify complex processes to enhance efficiency and satisfaction.

**Category: Customer-Centric Metrics**

1. **Retrieve companies with low customer satisfaction (below 85%).**
   * **Interpretation**: Flag companies at risk of losing customers.
   * **Recommendation**: Focus on improving service quality and engagement.
2. **Identify the top 3 companies with the best balance between customer satisfaction and order fulfillment rates.**
   * **Interpretation**: Recognize customer-focused companies excelling in delivery.
   * **Recommendation**: Highlight and replicate their customer and delivery practices.

**Category: Financial Metrics**

1. **Rank companies by their revenue growth rate.**
   * **Interpretation**: Measure financial success and growth trends.
   * **Recommendation**: Partner with high-growth companies or emulate their strategies.
2. **Calculate the total revenue growth rate for companies with advanced sustainability practices and medium supply chain integration levels.**
   * **Interpretation**: Assess the financial impact of sustainability and integration.
   * **Recommendation**: Invest in these practices for financial growth.
3. **List companies whose cost of goods sold (COGS) exceeds $500B.**
   * **Interpretation**: Identify high-cost companies for cost-saving opportunities.
   * **Recommendation**: Implement lean strategies to reduce COGS.

**Category: Technology Utilization**

1. **Find companies using "Blockchain" technology.**
   * **Interpretation**: Identify innovators leveraging blockchain.
   * **Recommendation**: Promote blockchain for transparency and security.
2. **Determine the percentage of companies using blockchain technology whose inventory turnover ratio is above 7.**
   * **Interpretation**: Assess blockchain's impact on inventory turnover.
   * **Recommendation**: Encourage blockchain adoption in inventory management.
3. **Find companies using both ERP and AI technologies.**
   * **Interpretation**: Recognize companies investing in advanced digital solutions.
   * **Recommendation**: Promote ERP and AI for supply chain modernization.

**Category: Inventory and Order Metrics**

1. **Get companies with inventory accuracy below 90%.**
   * **Interpretation**: Identify companies with poor inventory tracking.
   * **Recommendation**: Upgrade to automated systems like RFID.
2. **Identify companies with above-average order fulfillment rates and below-average supply chain risk, grouped by their supply chain agility.**
   * **Interpretation**: Highlight efficient, low-risk companies.
   * **Recommendation**: Use their strategies as benchmarks for balanced performance.
3. **Find the maximum order fulfillment rate across all companies.**
   * **Interpretation**: Set a benchmark for order fulfillment.
   * **Recommendation**: Encourage companies to aim for top-tier fulfillment.

**Category: General Metrics**

1. **Get the average lead time across all companies.**
   * **Interpretation**: Measure industry delivery performance.
   * **Recommendation**: Use as a benchmark to reduce delays.
2. **Calculate the total number of suppliers across all companies.**
   * **Interpretation**: Understand supply chain scale.
   * **Recommendation**: Use this metric to gauge network size.
3. **Count companies with medium supply chain integration levels.**
   * **Interpretation**: Measure integration adoption.
   * **Recommendation**: Promote end-to-end integration.