**Pizza Dataset Analysis**

**Q-1 List the top 5 most ordered pizza types along with their quantities.**

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| SELECT  pt.name, COUNT(quantity) order\_amount  FROM  order\_details AS od  INNER JOIN  pizzas AS p ON od.pizza\_id = p.pizza\_id  INNER JOIN  pizza\_types pt ON p.pizza\_type\_id = pt.pizza\_type\_id  GROUP BY pt.name  ORDER BY order\_amount DESC  LIMIT 5; |  |

**Q-2 Calculate the total revenue generated from pizza sales.**

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| select round(sum(od.quantity\*p.price),2) as total\_revenue\_generated  from order\_details as od  inner join pizzas as p  on od.pizza\_id=p.pizza\_id |  |

**Q-3 Write a query to find the total revenue of each pizza category ordered**

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| SELECT  pt.category AS pizza\_category,  ROUND(SUM(od.quantity \* p.price), 0) AS Total\_Revenue  FROM  order\_details AS od  INNER JOIN  pizzas AS p ON od.pizza\_id = p.pizza\_id  INNER JOIN  pizza\_types pt ON p.pizza\_type\_id = pt.pizza\_type\_id  GROUP BY pt.category  ORDER BY Total\_Quantity\_ordered DESC; |  |

**Q-4 Identify the highest-priced pizza.**

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| SELECT  pt.name, p.price  FROM  pizza\_types pt  INNER JOIN  pizzas p ON pt.pizza\_type\_id = p.pizza\_type\_id  ORDER BY p.price DESC Limit 1; |  |

**Q-5 Identify the most common pizza size ordered.**

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| SELECT  p.size AS 'pizza size',  SUM(od.quantity) AS 'ordered amount'  FROM order\_details as od  INNER JOIN  pizzas p ON od.pizza\_id = p.pizza\_id  GROUP BY p.size  ORDER BY 'ordered amount' DESC  LIMIT 1; |  |

**Q-6 What is the average price of pizzas in each category?**

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| SELECT  category, ROUND(AVG(p.price), 2) AS avg\_price  FROM  pizza\_types pt  INNER JOIN  pizzas p ON pt.pizza\_type\_id = p.pizza\_type\_id  GROUP BY pt.category  ORDER BY avg\_price DESC; |  |

**Q-7 Calculate the percentage contribution of each pizza type to total revenue by it's size.**

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| with cte as  (  SELECT  pt.category AS pizza\_category, p.size as pizza\_size,  ROUND(SUM(od.quantity \* p.price), 0) AS Total\_revenue  FROM  order\_details AS od  INNER JOIN  pizzas AS p ON od.pizza\_id = p.pizza\_id  INNER JOIN  pizza\_types pt ON p.pizza\_type\_id = pt.pizza\_type\_id  GROUP BY pt.category,p.size  ORDER BY pizza\_category )  select \*,  concat(round(total\_revenue/(select sum(total\_revenue) from cte) \*100,2),"%") percentage\_contribution  from cte  (CTE + Sub Query With Group by and Join) |  |

**Q-8 Analyze the cumulative revenue generated over time(month).**

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| SELECT  CASE month\_no  WHEN 1 THEN 'January' WHEN 2 THEN 'February 'WHEN 3 THEN 'March' WHEN 4 THEN 'April'  WHEN 5 THEN 'May' WHEN 6 THEN 'June' WHEN 7 THEN 'July' WHEN 8 THEN 'August'  WHEN 9 THEN 'September' WHEN 10 THEN 'October 'WHEN 11 THEN 'November'  WHEN 12 THEN 'December' ELSE 'Invalid Month'  END AS month\_name,revenue,  SUM(revenue) OVER (ORDER BY month\_no) AS cumulative\_revenue  FROM ( SELECT  MONTH(o.order\_date) AS month\_no,  ROUND(SUM(od.quantity \* p.price), 0) AS revenue  FROM  order\_details AS od  INNER JOIN pizzas AS p ON od.pizza\_id = p.pizza\_id  INNER JOIN orders AS o ON od.order\_id = o.order\_id  GROUP BY MONTH(o.order\_date)  ) sales;  **Case statement + windows + group by + joins + sub query)** |  |

**Q-9 Determine the top 3 most ordered pizza types based on revenue for each pizza category.**

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| with cte as  (  SELECT  pt.category AS category,  pt.name AS pizza,  ROUND(SUM(od.quantity \* p.price), 0) AS revenue  FROM  pizzas AS p  INNER JOIN  pizza\_types AS pt ON p.pizza\_type\_id = pt.pizza\_type\_id  INNER JOIN  order\_details od ON p.pizza\_id = od.pizza\_id  GROUP BY pt.category , pt.name  ORDER BY category)  select \* from  (select \*,  row\_number() over(partition by category order by revenue desc) as ranking  from cte) rankings  where ranking<=3 |  |

**Q-10 What are the peak order times & top 2 items are being purchase more during that time?**

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| with cte as  (SELECT  HOUR(o.order\_time) peak\_hour,  pt.name AS items,  SUM(od.quantity) counts  FROM  orders o  INNER JOIN  order\_details od ON o.order\_id = od.order\_id  INNER JOIN  pizzas p ON od.pizza\_id = p.pizza\_id  INNER JOIN  pizza\_types pt ON p.pizza\_type\_id = pt.pizza\_type\_id  GROUP BY HOUR(o.order\_time) , pt.name  ORDER BY counts DESC)  select items, peak\_hour, counts  from (select \*, row\_number()over(partition by peak\_hour order by counts desc) as rankings from cte) x  where rankings<=2 and counts>200; |  |

**Q-11 How does the average order value differ between weekdays and weekends?**

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| with cte as  (select flag, round(sum(revenue),0) total\_revenue, round((sum(revenue) /count(revenue)),2) average from  (SELECT  DAYNAME(o.order\_date) AS days,  CASE WHEN  DAYNAME(o.order\_date) IN ('monday' , 'tuesday','wenesday','thursday','friday')  THEN 'weekdays'  ELSE 'weekends' END flag,  od.quantity \* p.price AS revenue  FROM order\_details od  INNER JOIN orders o ON od.order\_id = o.order\_id  INNER JOIN pizzas p ON od.pizza\_id = p.pizza\_id) x  group by flag)  select concat(round((((select average from cte  where flag='weekdays')-(select average from cte  where flag='weekends'))/(select average from cte  where flag='weekdays'))\*100,2),'%') diff from cte  limit 1 |  |