a. Calculate total sales per year:

SELECT SUBSTR(order\_date, 1, 4) AS year, SUM(quantity \* price) AS total\_sales FROM sales\_order\_orc GROUP BY SUBSTR(order\_date, 1, 4);

b. Find a product for which the maximum orders were placed:

SELECT product, COUNT(\*) AS order\_count FROM sales\_order\_orc GROUP BY product ORDER BY order\_count DESC LIMIT 1;

c. Calculate the total sales for each quarter:

SELECT CONCAT(SUBSTR(order\_date, 1, 4), 'Q', CEIL(MONTH(order\_date)/3)) AS quarter, SUM(quantity \* price) AS total\_sales FROM sales\_order\_orc GROUP BY CONCAT(SUBSTR(order\_date, 1, 4), 'Q', CEIL(MONTH(order\_date)/3));

d. In which quarter sales was minimum:

SELECT CONCAT(SUBSTR(order\_date, 1, 4), 'Q', CEIL(MONTH(order\_date)/3)) AS quarter, SUM(quantity \* price) AS total\_sales FROM sales\_order\_orc GROUP BY CONCAT(SUBSTR(order\_date, 1, 4), 'Q', CEIL(MONTH(order\_date)/3)) ORDER BY total\_sales LIMIT 1;

e. In which country sales were maximum and in which country sales were minimum

SELECT country, SUM(quantity \* price) AS total\_sales FROM sales\_order\_orc GROUP BY country ORDER BY total\_sales DESC LIMIT 1; SELECT country, SUM(quantity \* price) AS total\_sales FROM sales\_order\_orc GROUP BY country ORDER BY total\_sales LIMIT 1;

f. Calculate quarterly sales for each city:

SELECT city, CONCAT(SUBSTR(order\_date, 1, 4), 'Q', CEIL(MONTH(order\_date)/3)) AS quarter, SUM(quantity \* price) AS total\_sales FROM sales\_order\_orc GROUP BY city, CONCAT(SUBSTR(order\_date, 1, 4), 'Q', CEIL(MONTH(order\_date)/3));

h. Find a month for each year in which the maximum number of quantities were sold:

SELECT CONCAT(SUBSTR(order\_date, 1, 4), '-', SUBSTR(order\_date, 5, 2)) AS month, SUM(quantity) AS total\_quantity FROM sales\_order\_orc GROUP BY CONCAT(SUBSTR(order\_date, 1, 4), '-', SUBSTR(order\_date, 5, 2)) ORDER BY total\_quantity DESC LIMIT 1;

Remember to replace 'your\_username' in the HDFS paths with your actual HDFS username.

These queries will help you analyze the data in the "sales\_order\_orc" table based on the given requirements.