

Task description:

You given a sql dump with following tables: customers, transactions, markets, products.

1) import dump into a relational database of your choice.

2) write following sql queries:

2.1) show total revenue in year 2020 in Chennai

2.2) show total revenue in year 2020, January Month

2.3) show the most profitable markets_name and total sales_amount for them.

2.4) show the customer who bought the most product Prod048.

2.5) show the average number of products sold per month

2.6) show top 10 customers who have made the most purchases in 2017

3) write script Python or use any BI tool to generate a report that shows the monthly sales trend for each product in 2020. You should plot a line chart to visualise the sales trend for each product. The report should have two sections: a table and a chart. The table should have four columns: month, products, sales (quantity * amount), and growth rate (percentage change from previous month). The chart should have one line for each product, with the x-axis showing the months and the y-axis showing the sales.

Task evaluation:

You will be evaluated based on the following criteria:

- Accuracy: Your code and queries should produce correct and consistent results.
- Efficiency: Your code and queries should run fast and use optimal algorithms and techniques.
- Readability: Your code and queries should follow good coding practices and conventions, such as indentation, naming, comments, etc.
- Documentation: Your code and queries should be well-documented and explained, using comments, doc, etc.
- Presentation: Your report should be clear and concise, using appropriate formats, labels, titles, etc.