

Scenario:

You have a database of sales for a retail store with three tables, 'sales', 'sales_item' and 'product'. Every time a new customer buys something at the store, a new record is created in 'sales', with all of the items they bought during that transaction saved in the 'sales_item' table

- 'sales' has the following fields:
 - id (primary key)
 - sale_date (timestamp)
- 'sales_item' has the following fields:
 - id (primary key)
 - sale_id (foreign key to sales.id)
 - product_id (foreign key to product.id)
 - quantity_sold (integer)
 - total_sell_price (float, total amount the item was sold for in Ghana cedis)
- 'product' has the following fields:
 - id (primary key)
 - name (string, name of the product)

Q1:

i)

A business user wants to know the total revenue by week for all sales in 2019 so that they can see whether sales revenue is increasing or decreasing over time. Write a SQL query to do this.

ii)

The business user would like to filter out the weeks that made less than the weekly target of \$1000 in revenue

Q2:

The finance department would like to know the months that recorded higher than yearly average sale (where the average sale is a sum total of all sale within the year divided by the number of months)

Q3:

As a data analyst populate the database with sales data of five different products for the first 3 quarters of the year and create a forecast of sales for the last quarter of the year.

NB: You can use any forecasting tool and method of your choosing

