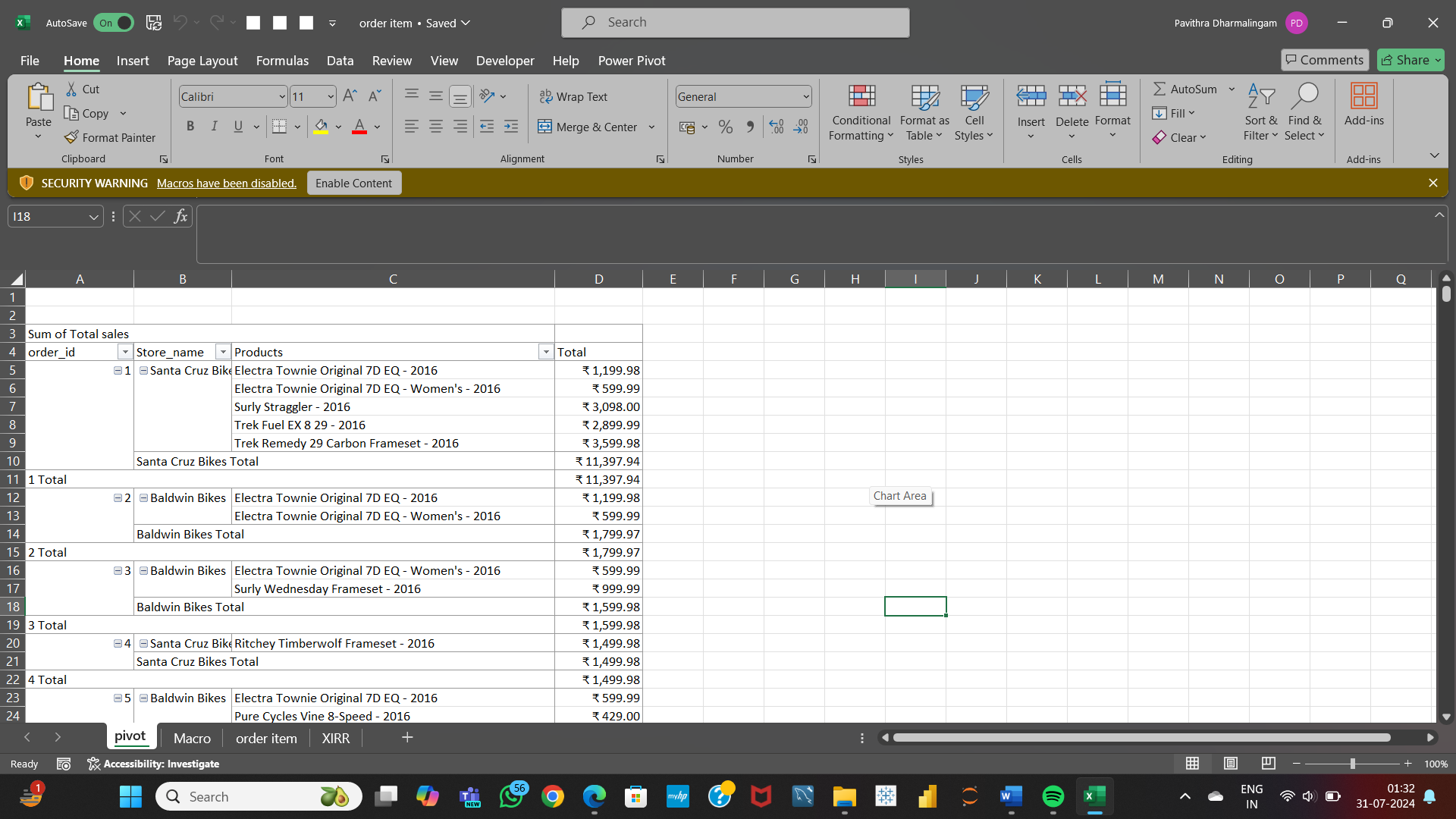
**Project Documentation**

**Data Cleaning**:

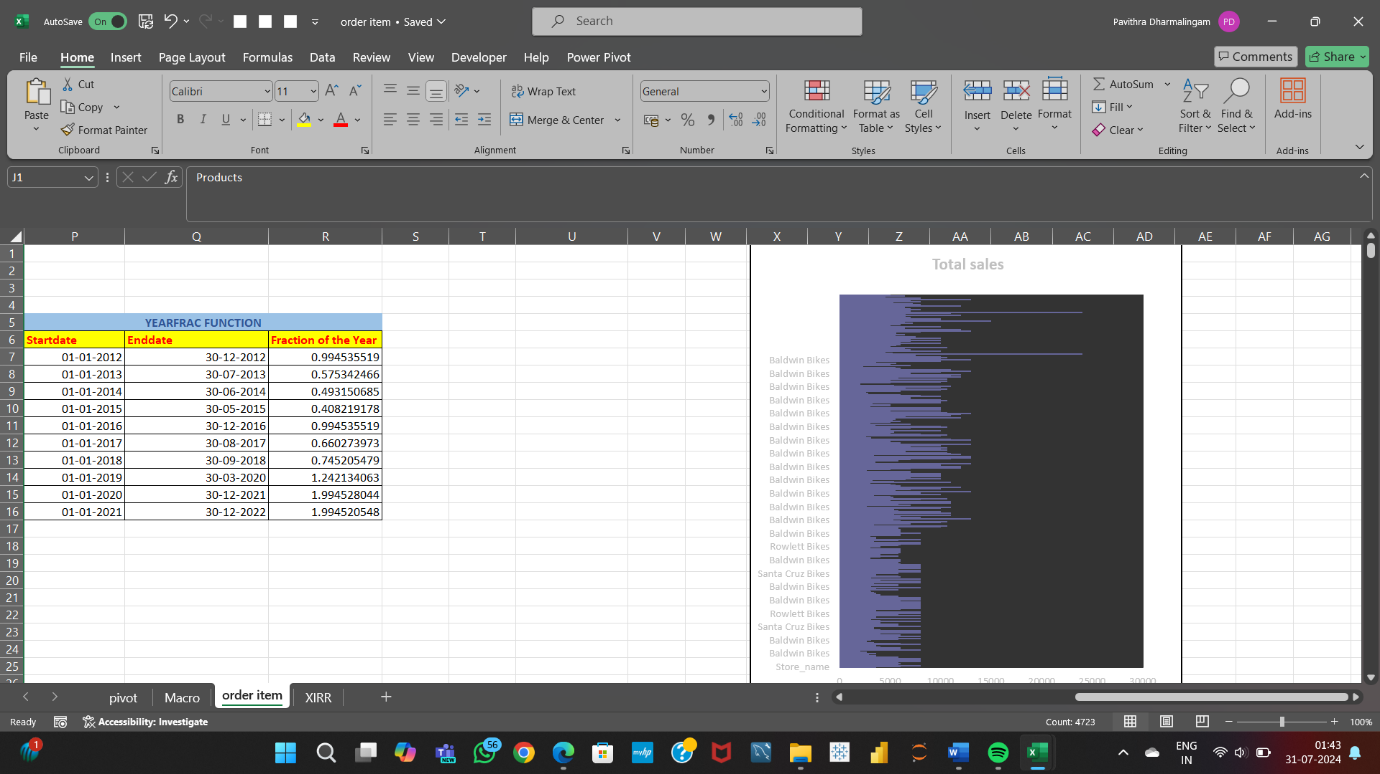
* Datatype conversion
* Removing duplicates
* Date type conversion
* Checking for blanks

**Excel Tasks:**

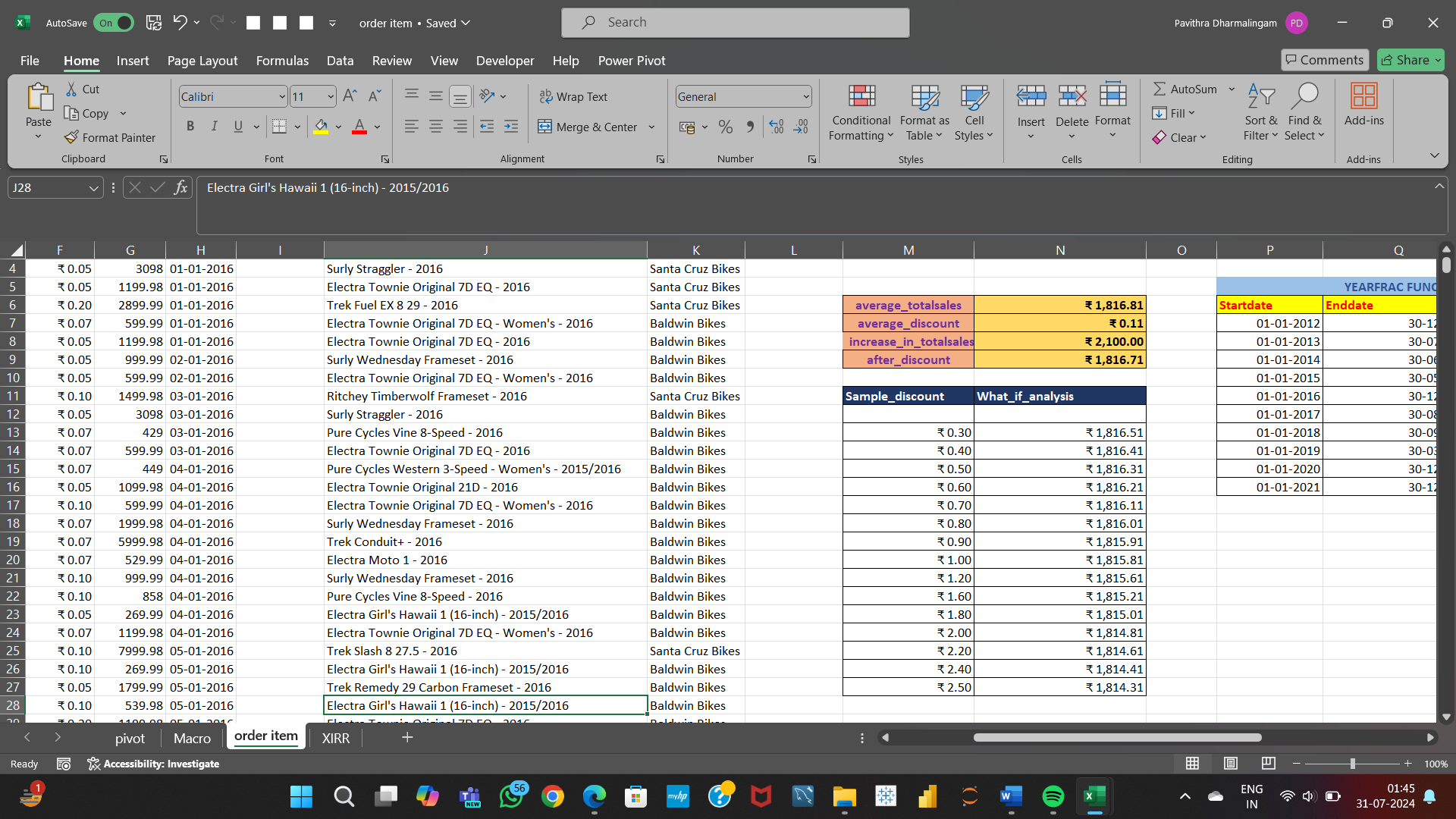
* Creating a pivot table to summarize total sales by store and product category.



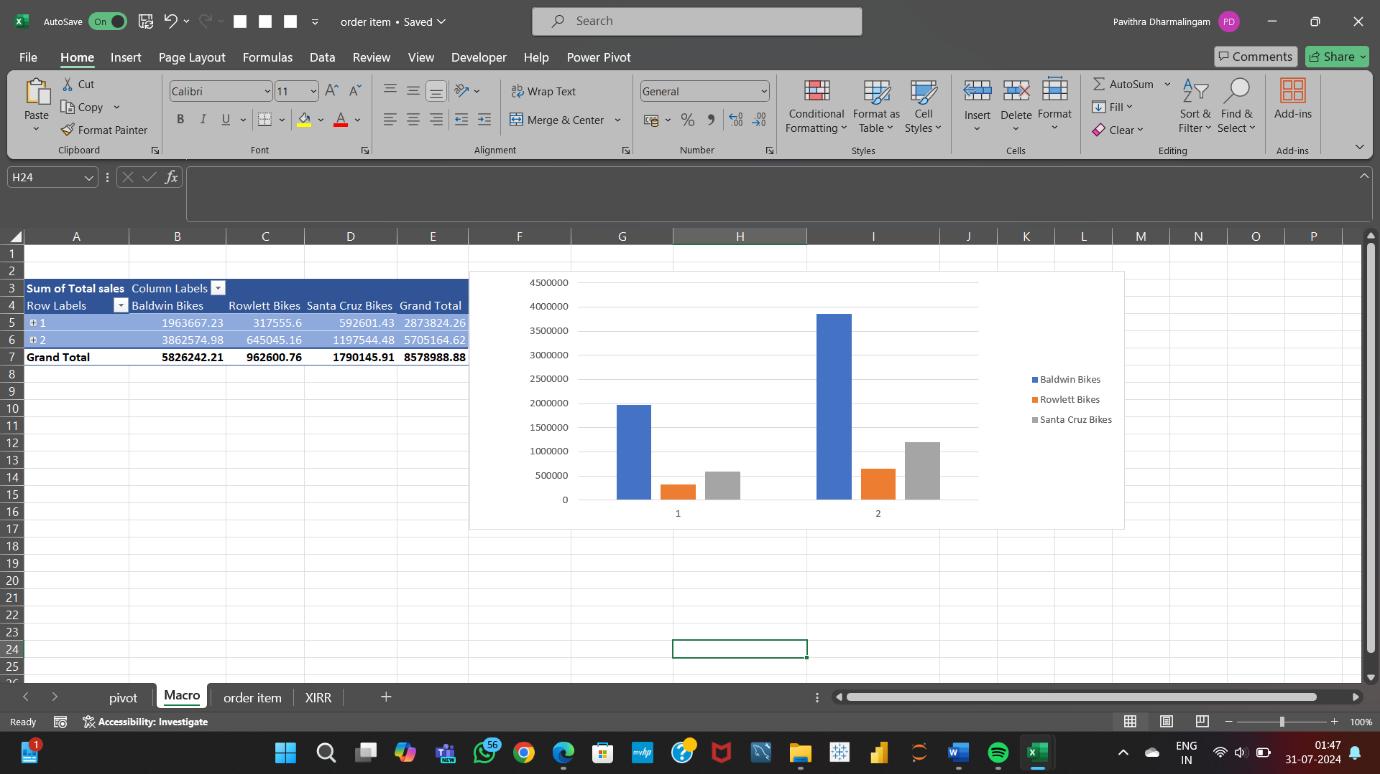
* Performing VLOOKUP to match product names with their respective categories and brands.
* To validate all email addresses in the staffs table are unique and correctly formatted.
* Create a bar chart to visualize the total sales by store.



* Performing what-if analysis to see how changes in discount rates affect total sales.

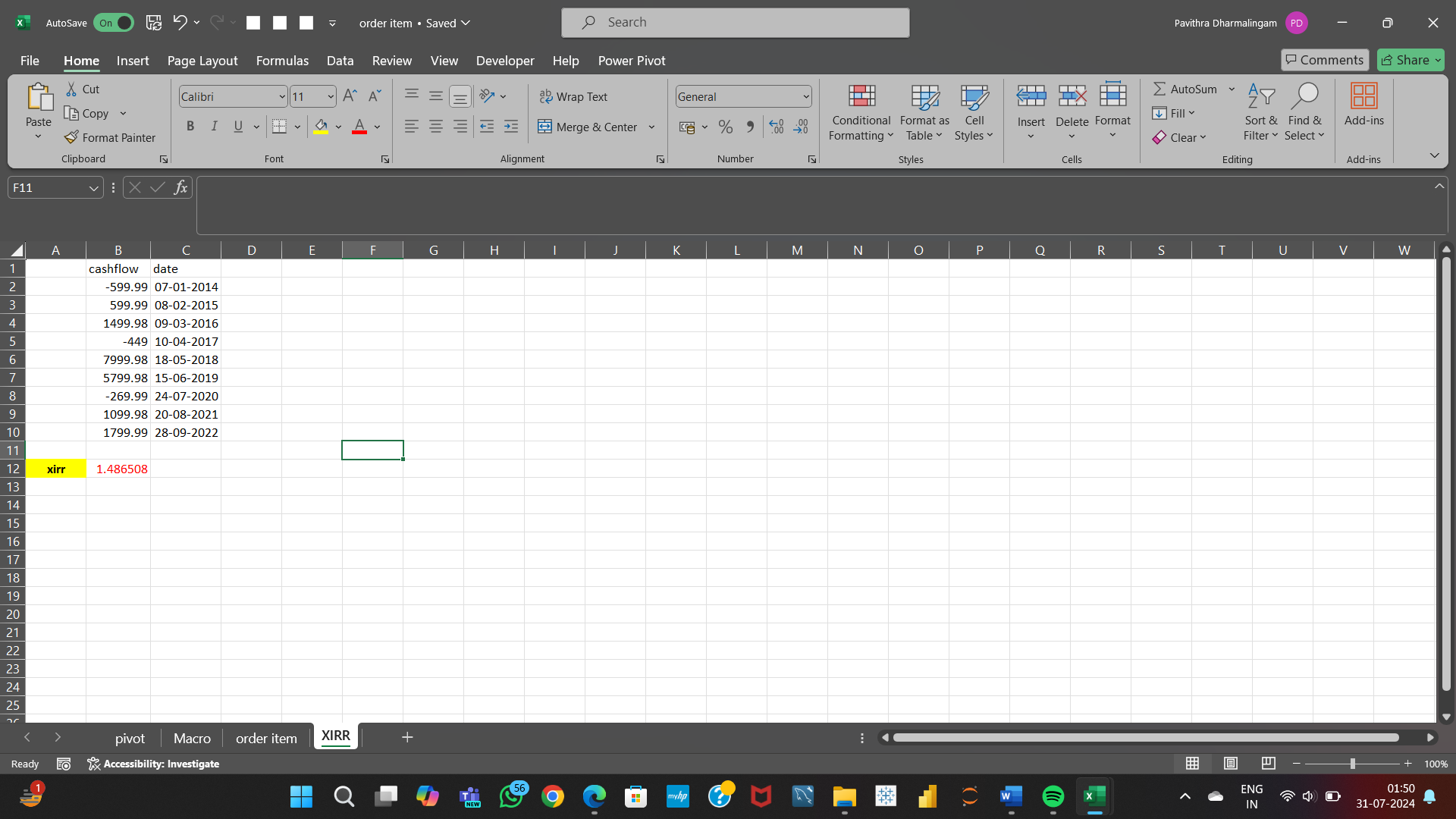


* Automating the process of updating sales reports using macros.



* Using YEARFRAC and XIRR





**SQL Tasks:**

* Retrieving all details of customers who have placed orders by joining customers and orders tables.

**select first\_name from customers join orders on customers.customer\_id = orders.customer\_id;**

* Using aggregate functions like SUM and GROUP BY to calculate total sales from the orders and order\_items tables.

**select order\_id, (round(sum(Total\_sales),2)) as total\_sale from order\_item group by order\_id;**

* Writing a subquery to identify products in the products table that do not appear in the order\_items table.

**select product\_name, product\_id from products**

**where not exists (select null from order\_item where products.product\_id = order\_item.product\_id);**

* Ranking stores based on their total sales.

**select s.store\_name, (round(sum(oi.Total\_sales),0)) as sales,**

**rank() over (order by sum(oi.Total\_sales) desc) as rankno**

**from stores as s**

**left join orders as o on s.store\_id = o.store\_id**

**left join order\_item as oi on o.order\_id = oi.order\_id group by s.store\_name;**

* Calculating the number of days each order took to ship

**select order\_id,**

**datediff (new\_sdate,new\_date) as no\_of\_days**

**from orders;**

* Categorize orders based on their status using case statement**.**

**select order\_id,**

**(case**

**when order\_status >= 0 and order\_status <= 1 then 'First Category'**

**when order\_status >= 1 and order\_status <= 2 then 'Second Category'**

**when order\_status >= 2 and order\_status <= 3 then 'Third Category'**

**when order\_status >= 4 then 'Fourth Category'**

**end) as category**

**from orders;**

* Retrieve all orders along with the product names and the store names using complex joins

**select o.order\_date,s.store\_name, p.product\_name , round(oi.Total\_sales,0) as Sales**

**from orders as o**

**left join order\_item as oi on o.order\_id = oi.order\_id**

**left join products as p on oi.product\_id = p.product\_id**

**left join stores as s on o.store\_id = s.store\_id ;**

* Create a temporary table to store intermediate sales calculations.

**create temporary table temp\_orders (**

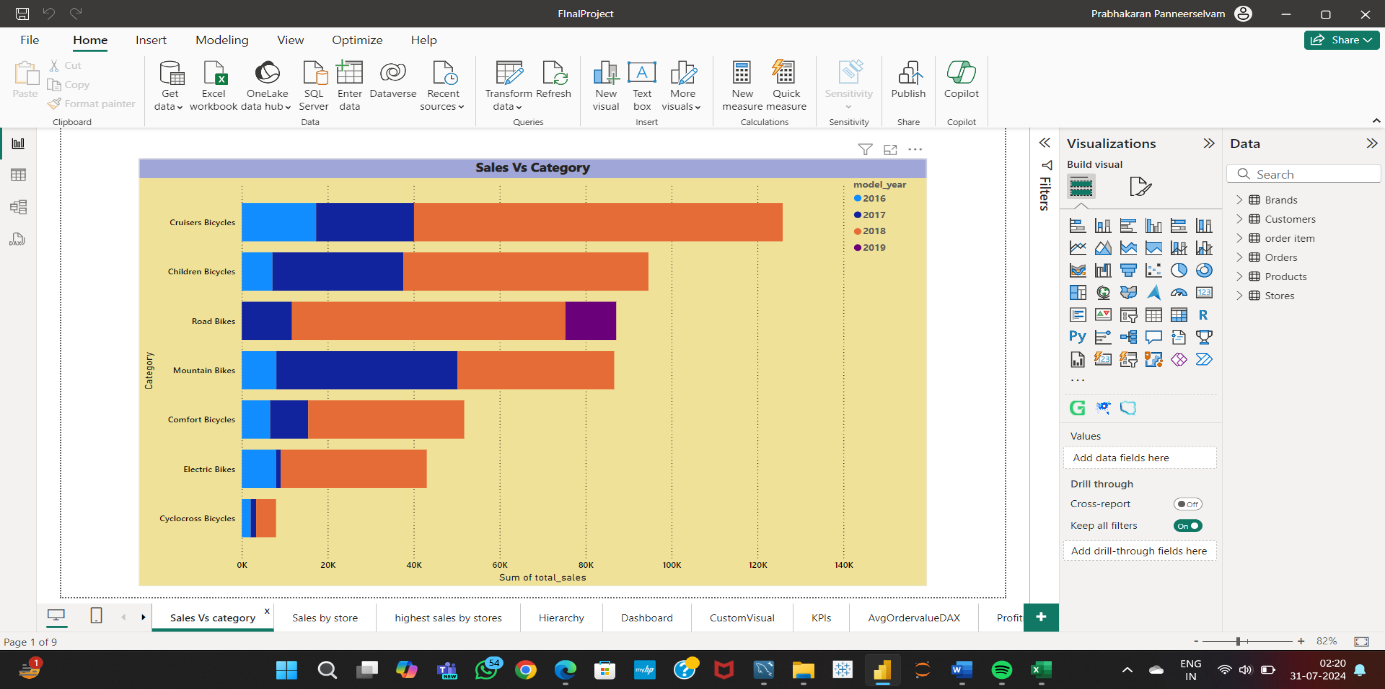
**order\_id int, customer\_id int,**

**order\_date date, shipped\_date date,**

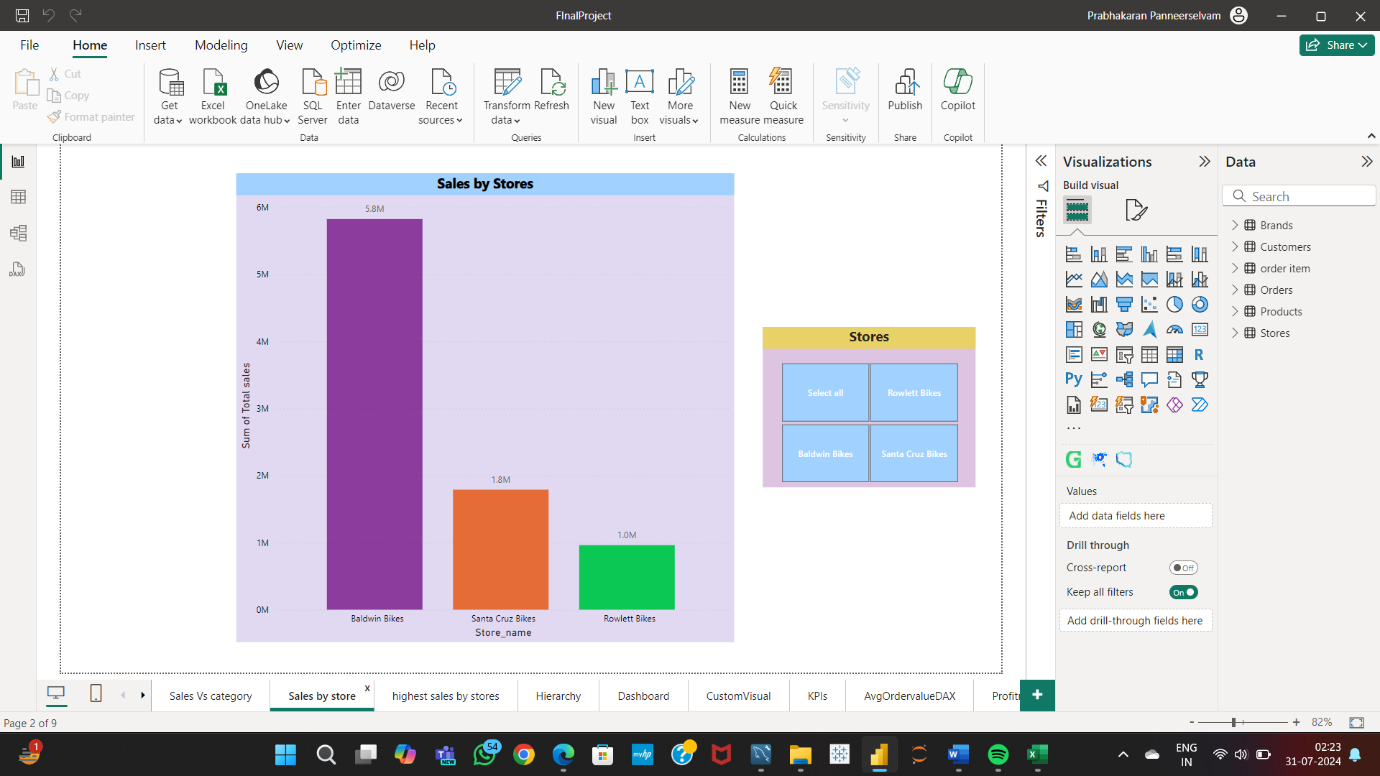
**store\_is int,staff\_id int, customer\_name VARCHAR(50), sales double);**

**PowerBI:**

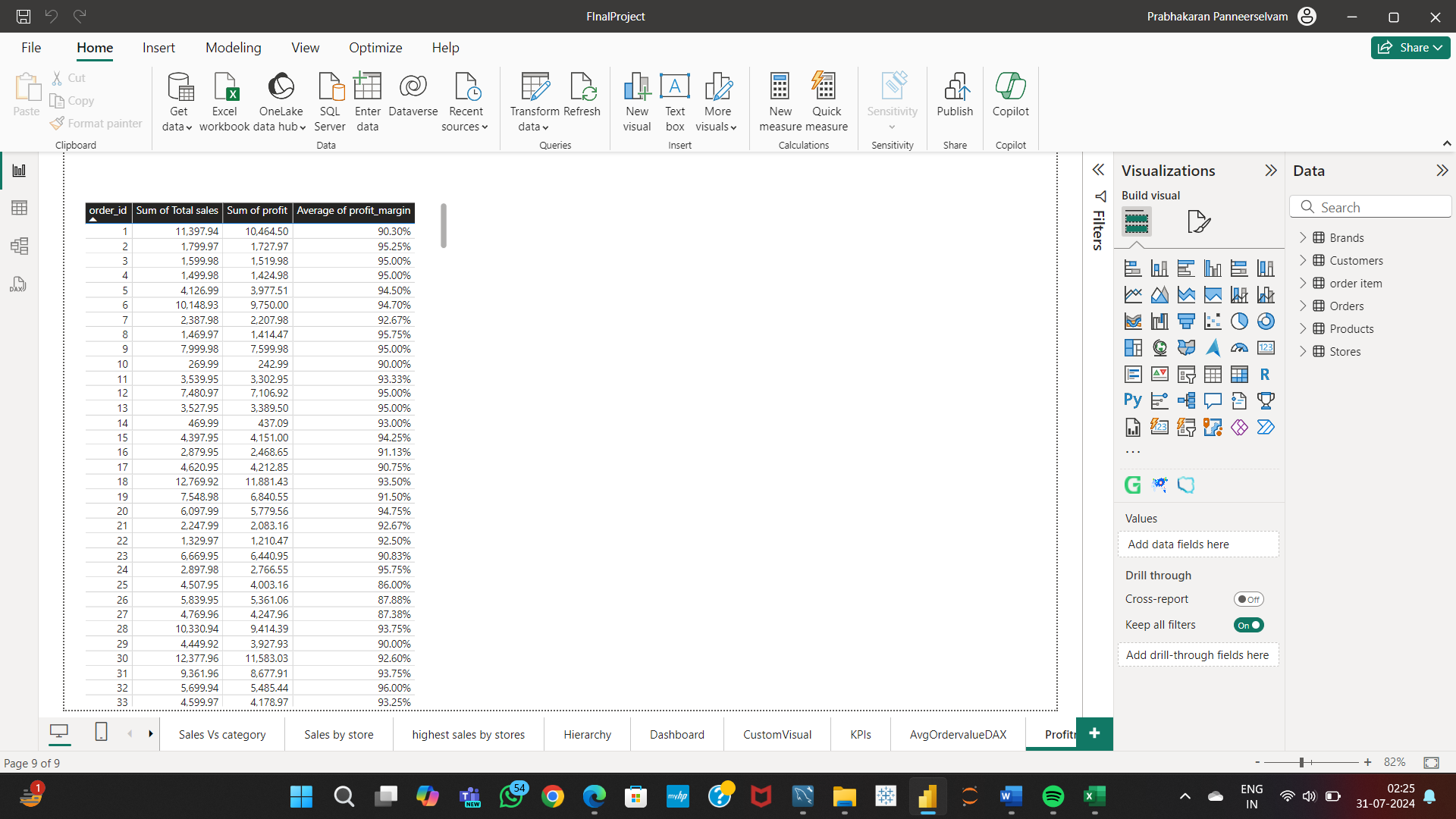
* Create a bar chart to show total sales by product category.

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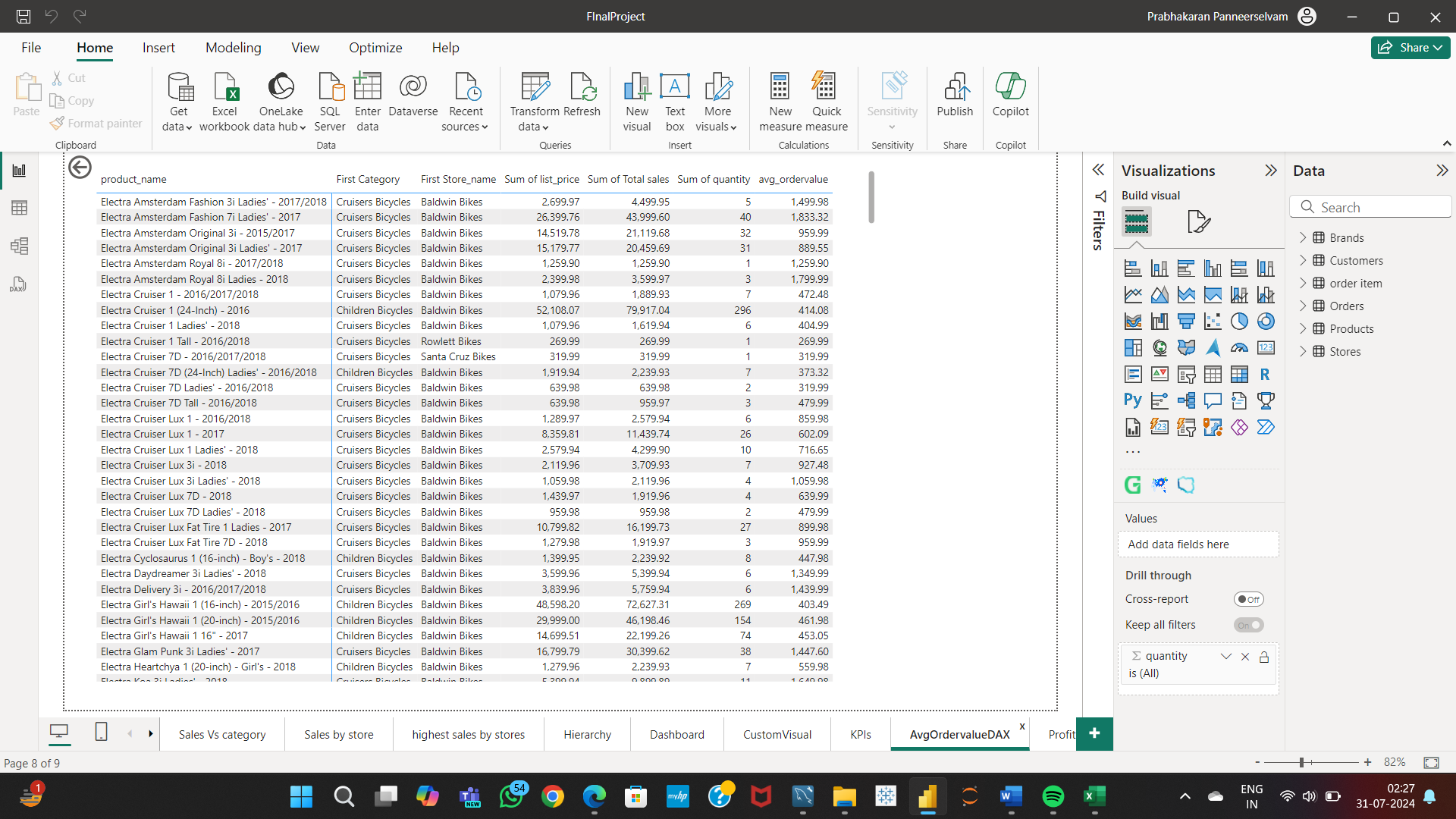
* Adding slicers to filter sales data by store and date range.



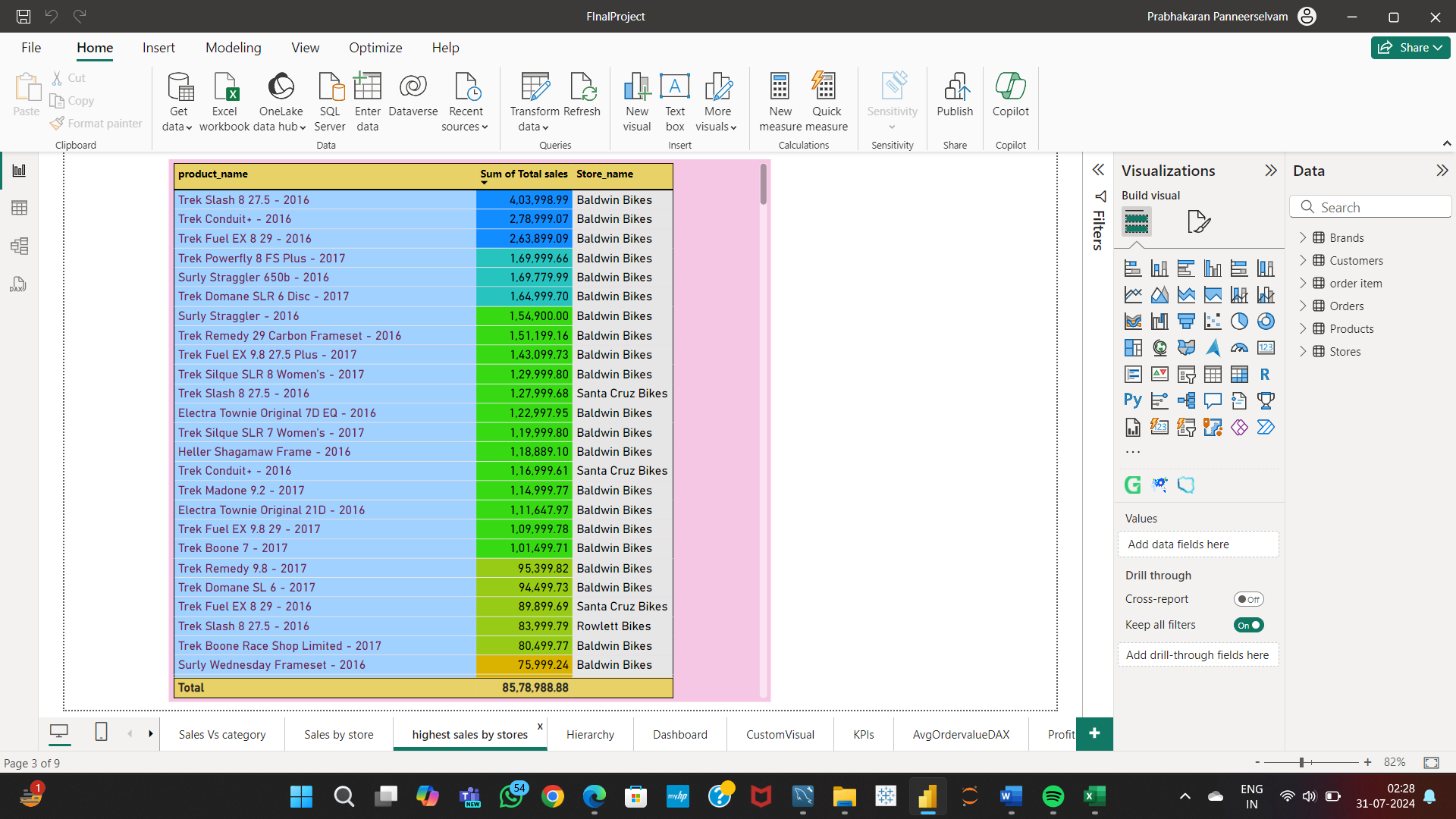
* Creating a calculated column to show the profit margin for each order item using DAX



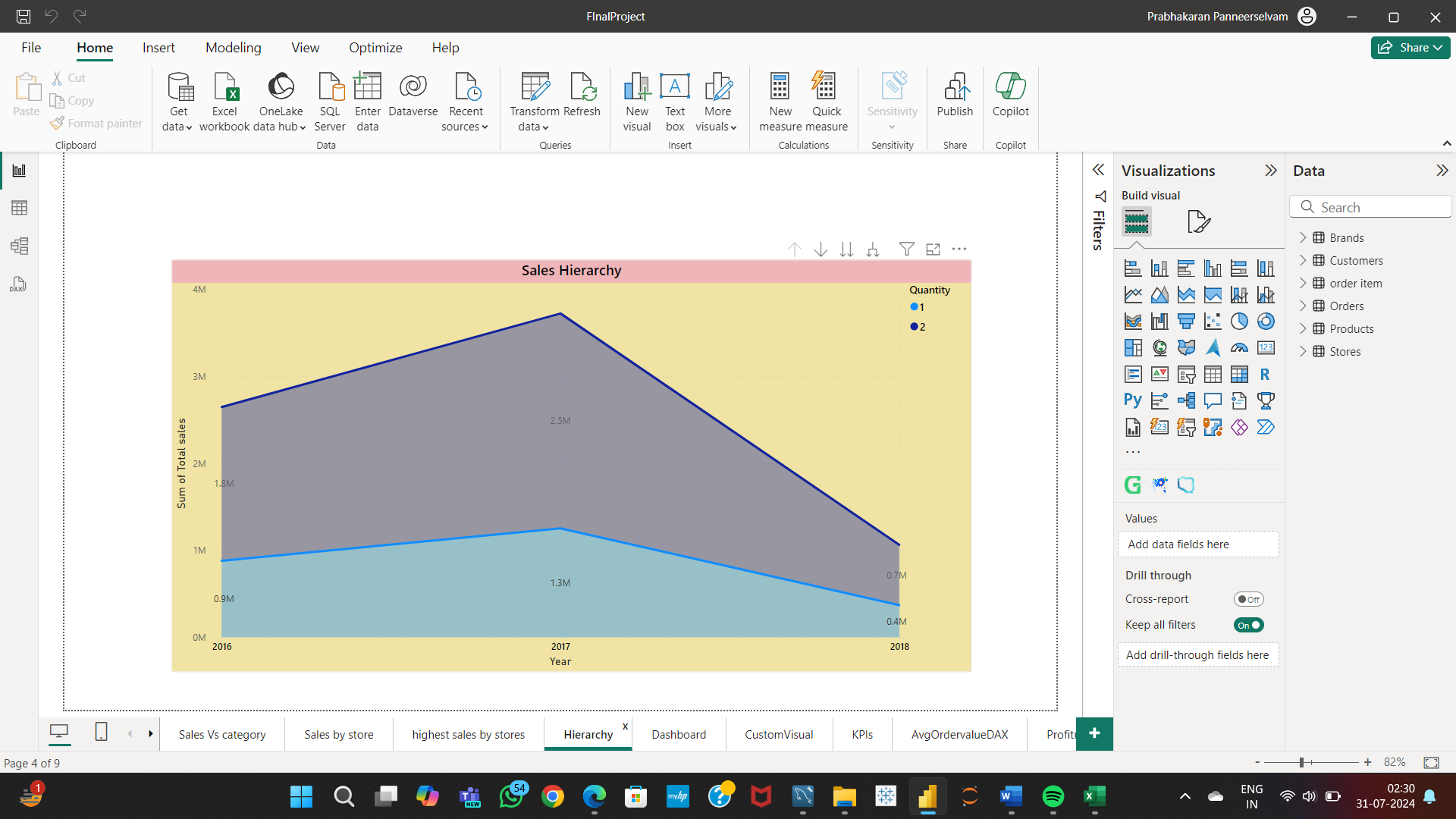
* Creating a measure to calculate the average order value using DAX



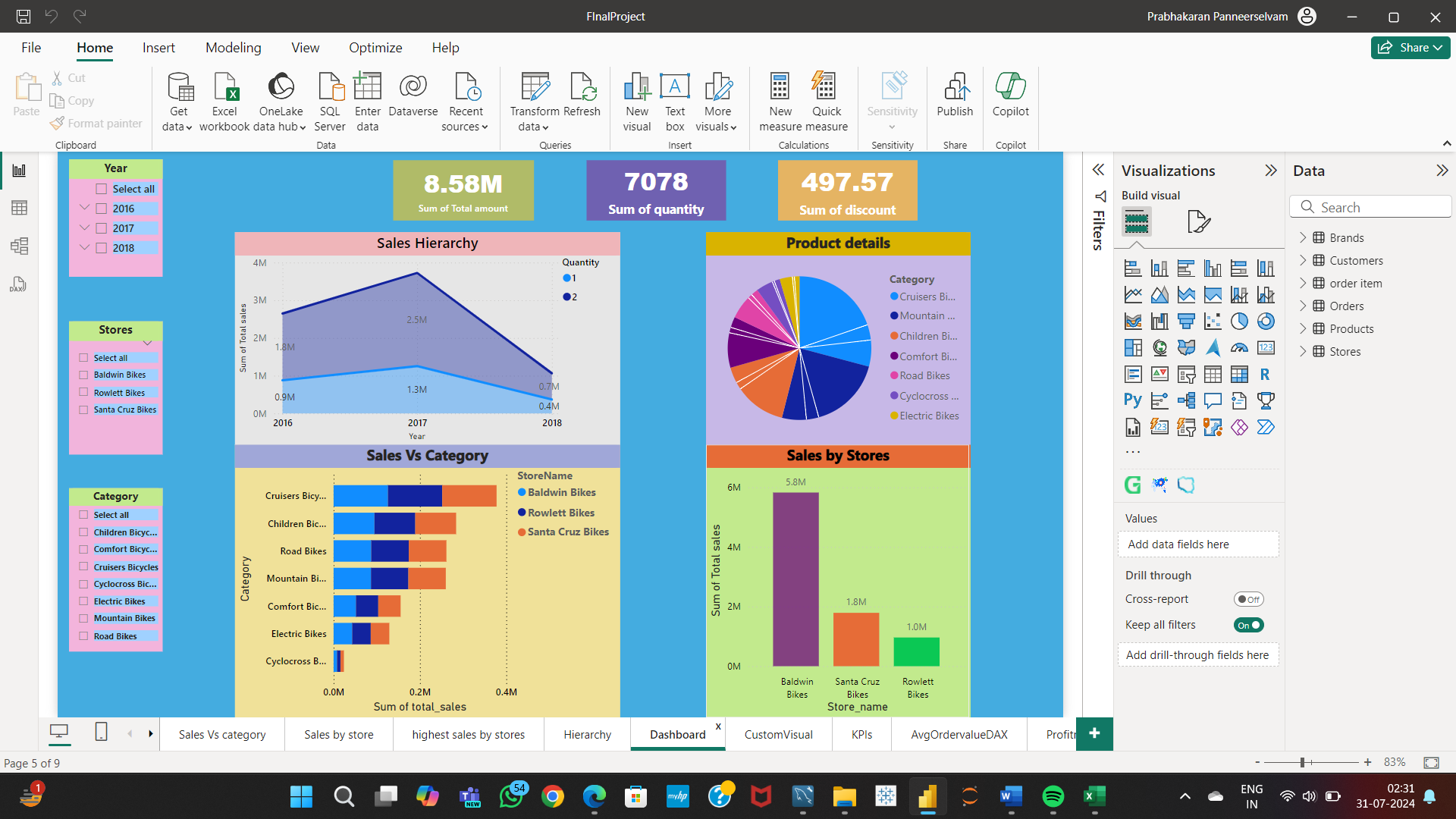
* Appling conditional formatting to highlight top-performing stores.



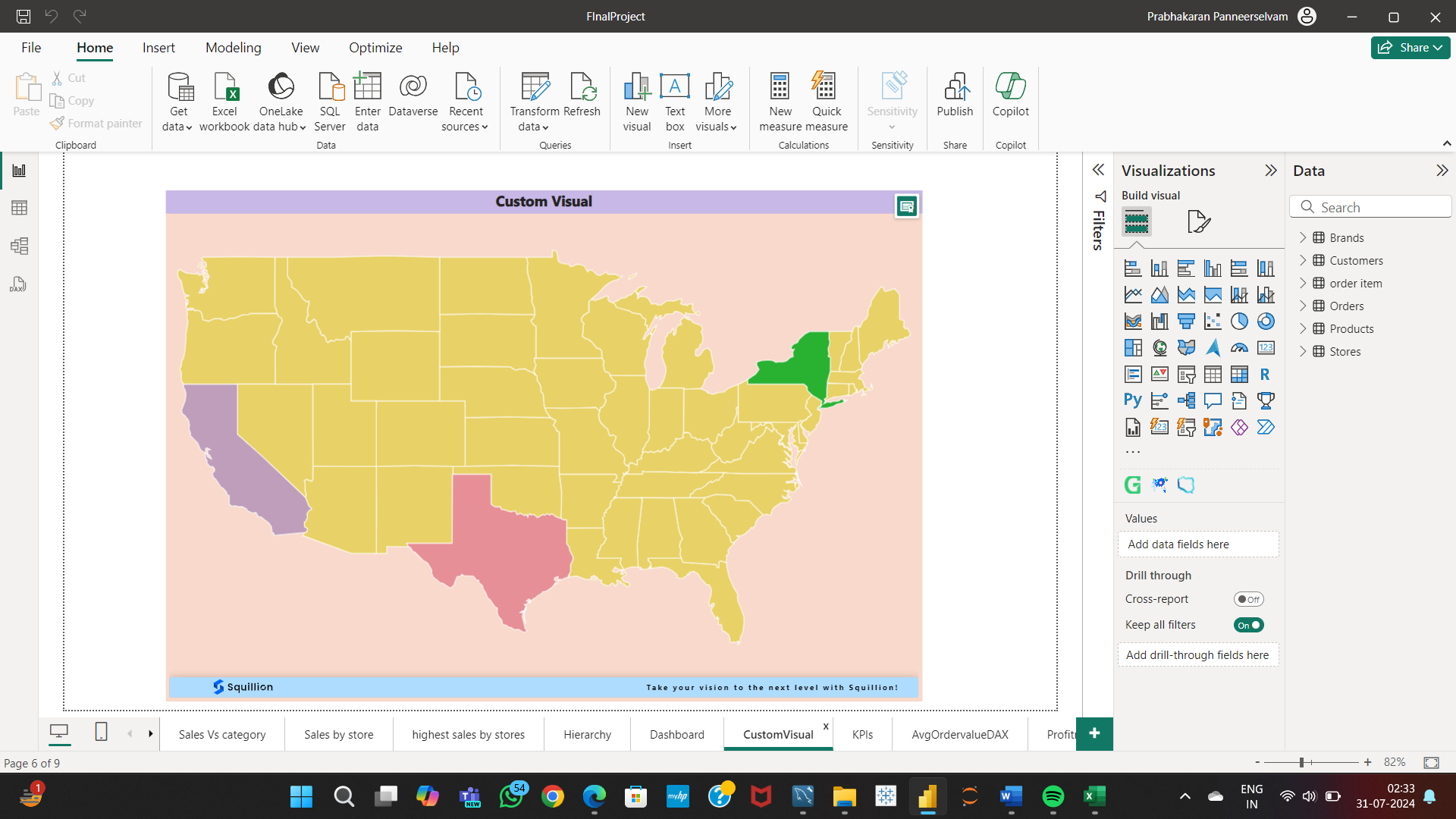
* Creating a hierarchy for drill-down analysis of sales data by year, month, and day.

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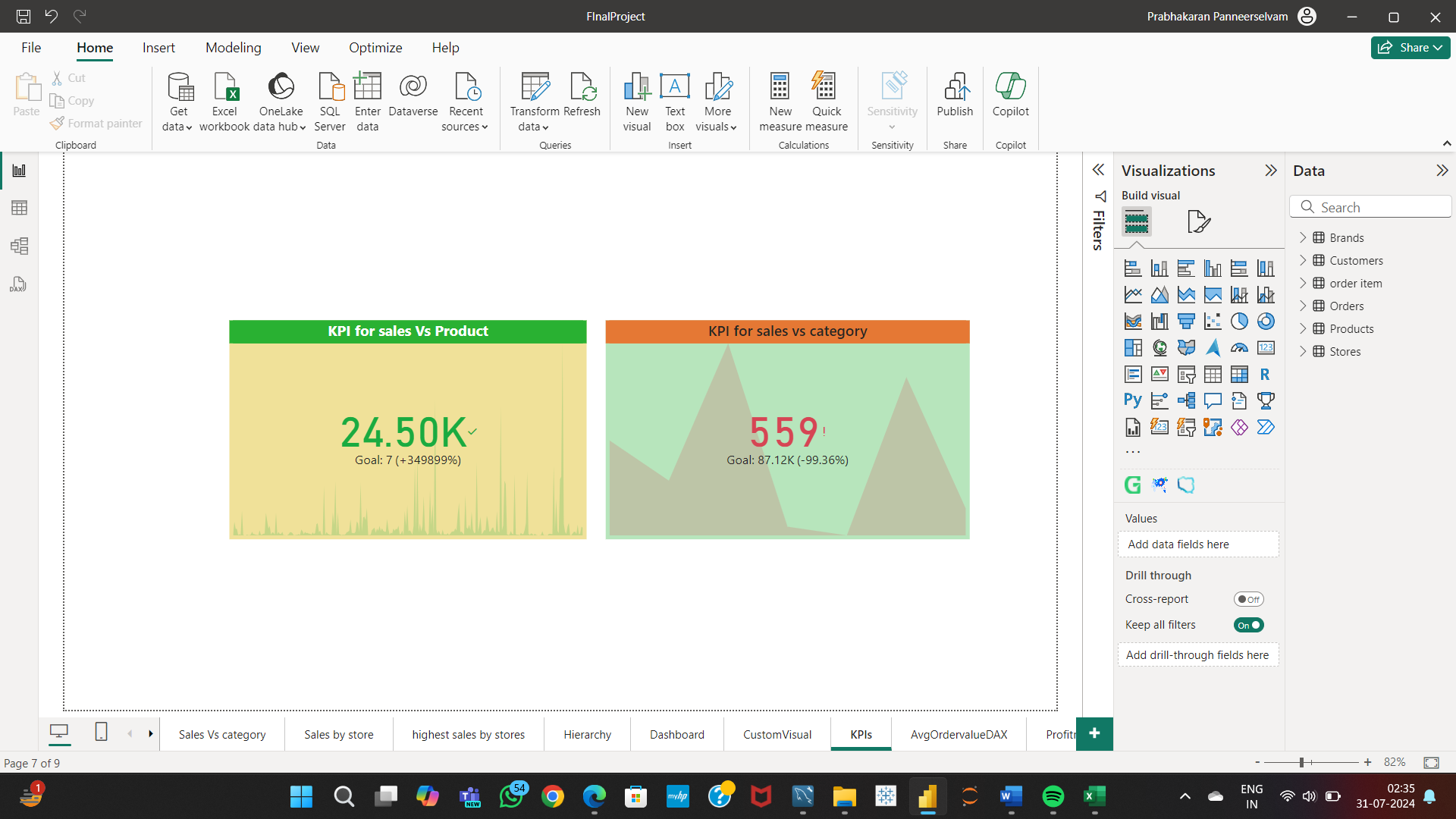
**Dashboards:**



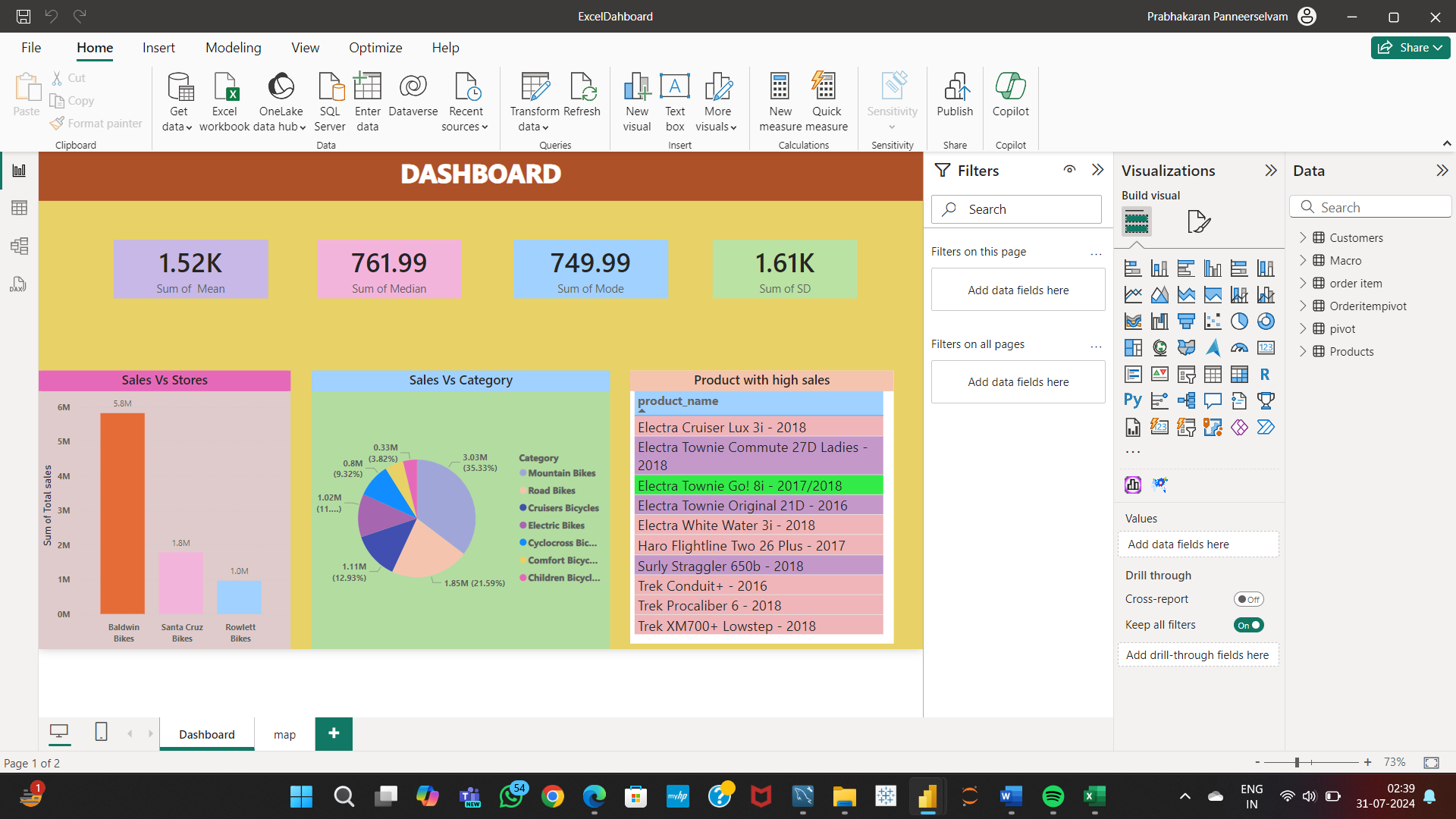
**Custom Visuals:**

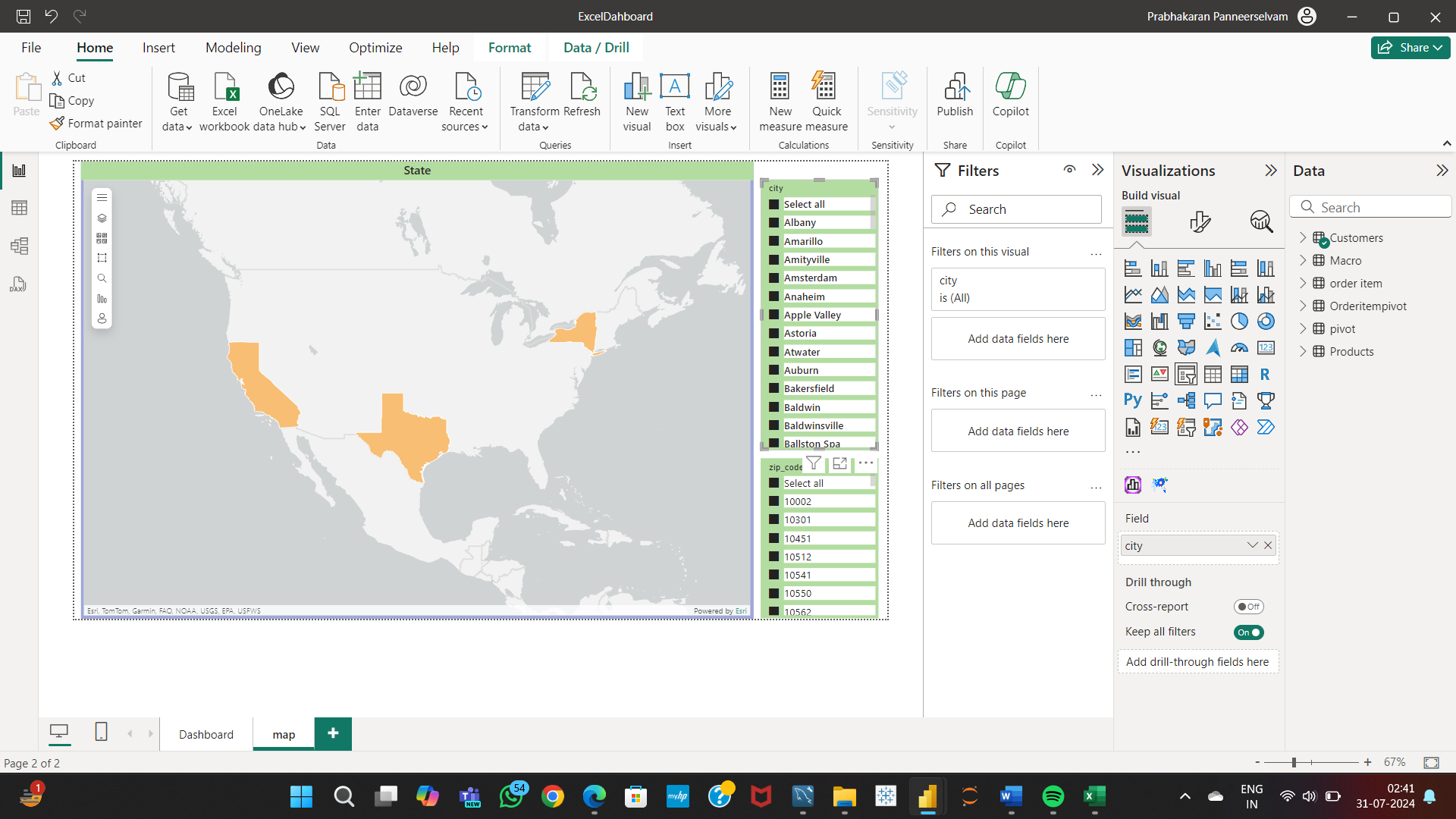


* Create KPIs to track sales targets versus actual sales.



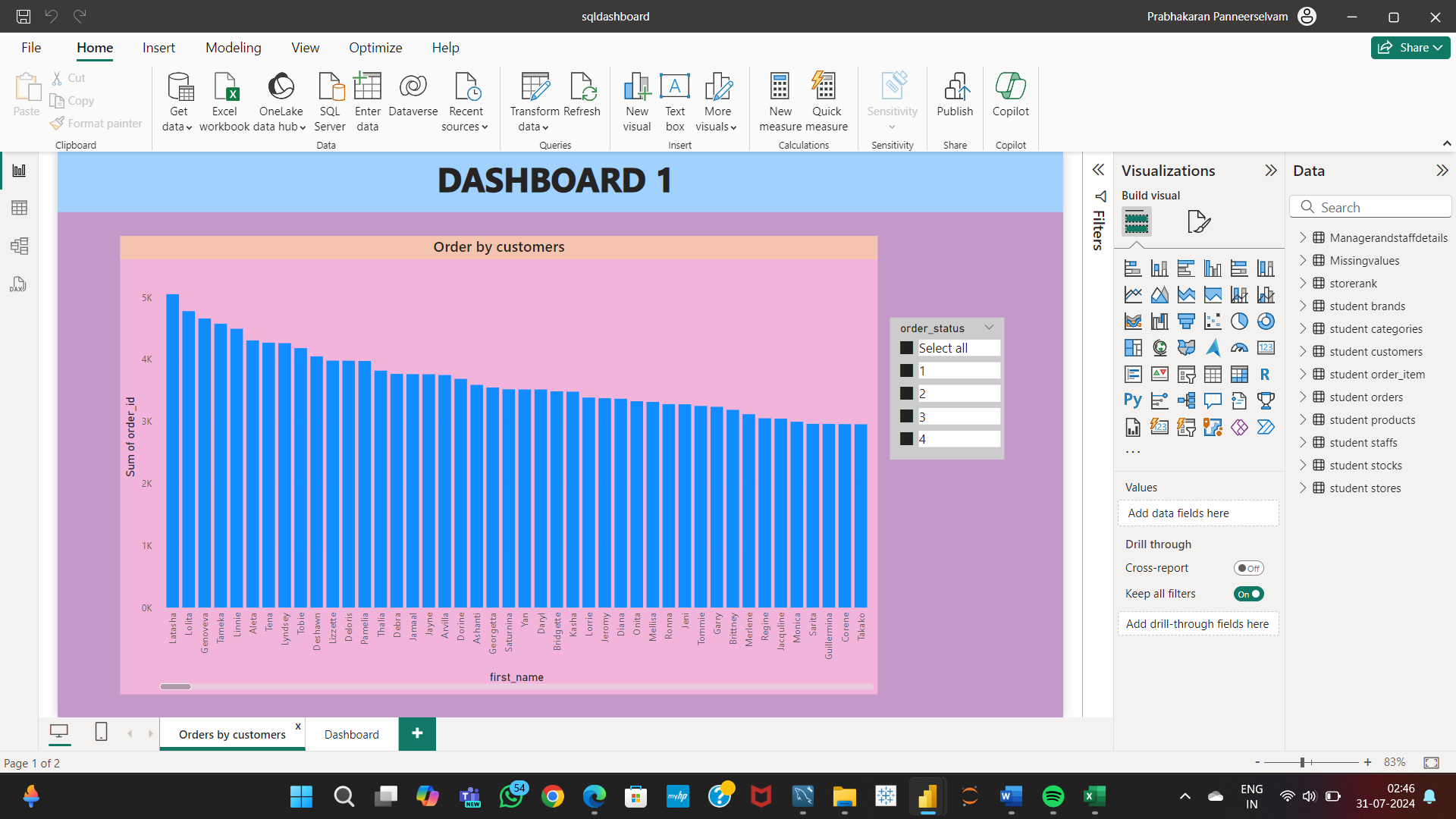
**Excel to PowerBI:**

The dashboard includes all the task given.

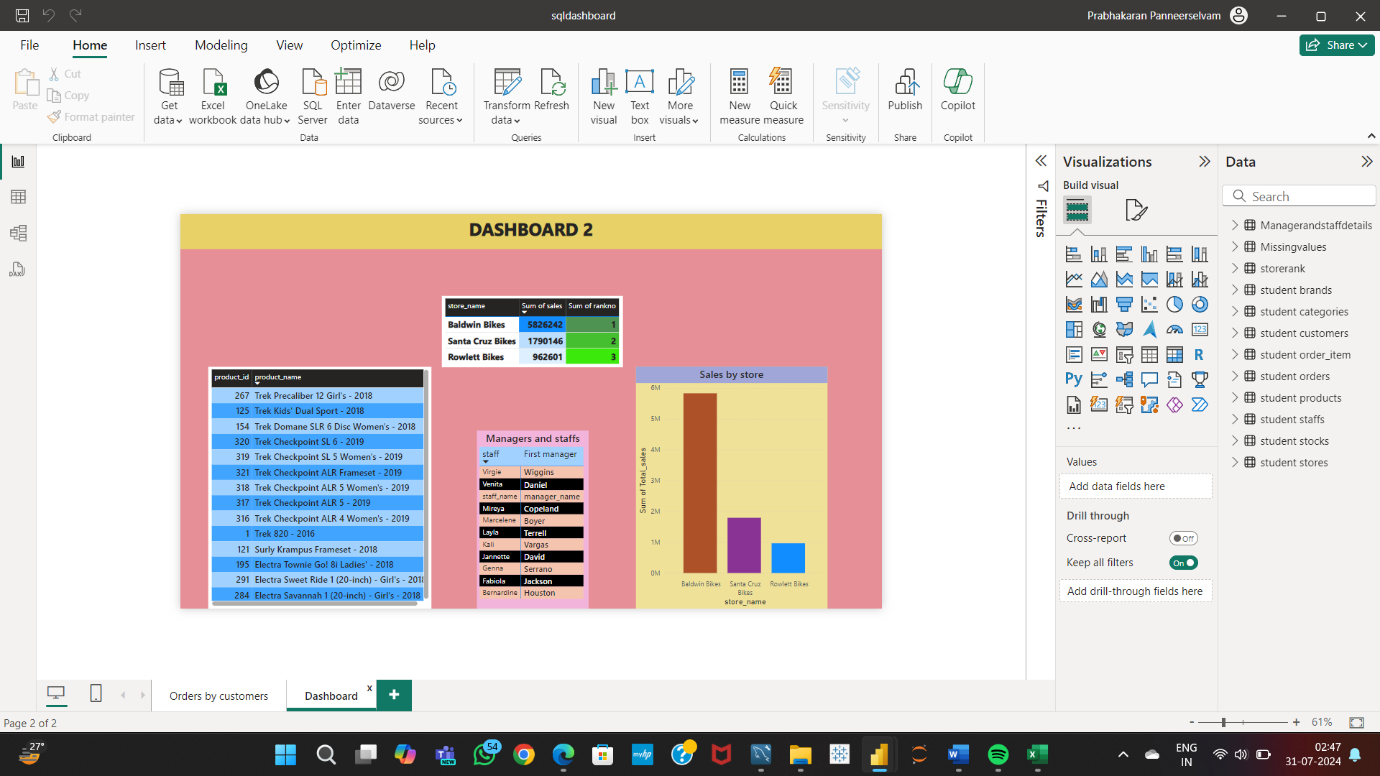


**SQL to PowerBI:**

* Importing the result of the query retrieving details of customers who have placed orders into Power BI.



* The dashboard contains all the tasks given.



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