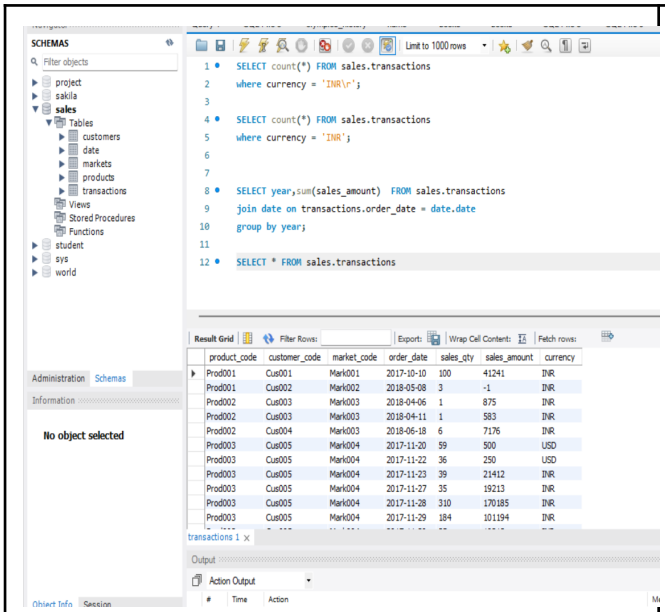
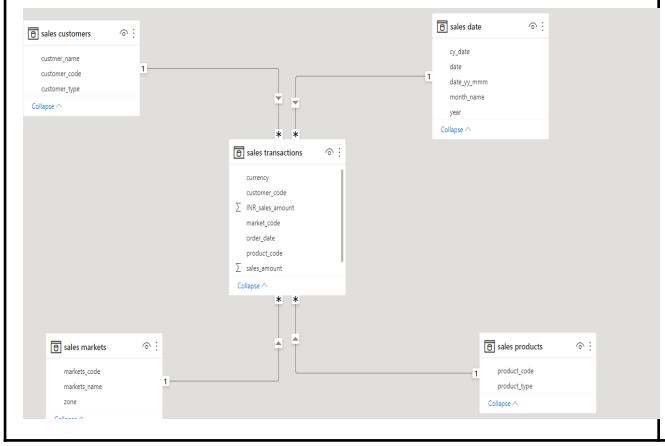
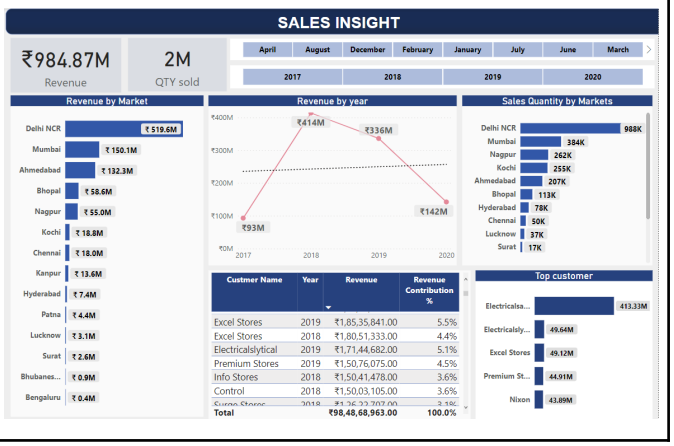
AtliQ hardware Analysis project



product_code	customer_code	market_code	order_date	sales_qty	sales_amount	currency	INR_sales_a
Prod279	Cus020	Mark011	11 October 2017	1	102	INR	
Prod279	Cus020	Mark011	18 October 2017	1	102	INR	
Prod279	Cus020	Mark011	19 October 2017	1	102	INR	
Prod279	Cus020	Mark011	08 November 2017	1	102	INR	
Prod279	Cus020	Mark011	09 March 2018	1	102	INR	
Prod279	Cus020	Mark011	20 March 2018	1	102	INR	
Prod279	Cus020	Mark011	22 March 2018	1	102	INR	
Prod279	Cus020	Mark011	23 March 2018	1	102	INR	
Prod279	Cus020	Mark011	29 March 2018	1	102	INR	
Prod279	Cus020	Mark011	16 April 2018	1	102	INR	
Prod279	Cus020	Mark011	19 April 2018	1	102	INR	
Prod279	Cus020	Mark011	02 May 2018	1	102	INR	
Prod279	Cus020	Mark011	03 May 2018	1	102	INR	
Prod279	Cus020	Mark011	10 May 2018	1	102	INR	
Prod279	Cus020	Mark011	08 June 2018	1	102	INR	
Prod279	Cus020	Mark011	14 June 2018	1	102	INR	
Prod279	Cus020	Mark011	18 June 2018	1	102	INR	
Prod279	Cus020	Mark011	29 June 2018	1	102	INR	
Prod279	Cus020	Mark011	03 July 2018	1	102	INR	
Prod279	Cus020	Mark011	09 July 2018	1	102	INR	
Prod279	Cus020	Mark011	10 July 2018	1	102	INR	
Prod279	Cus020	Mark011	12 July 2018	1	102	INR	
Prod279	Cus020	Mark011	16 July 2018	1	102	INR	
Prod279	Cus020	Mark011	27 July 2018	1	102	INR	
Prod279	Cus020	Mark011	02 August 2018	1	102	INR	
Prod279	Cus020	Mark011	09 August 2018	1	102	INR	
Prod279	Cus020	Mark011	06 September 2018	1	102	INR	





AtliQ hardware

AtliQ is a hardware making, which was established in 2017, has successfully developed various hardware like security cameras and computer hardware. The company has sold more than 2 Million products to date.

Business Request

The business request was collected for analyzing the AtliQ hardware dataset to generate insight.

# As a(role)	I want (request/demand)
1. manager	1. How is revenue doing? it is growing or not. 2. Market with the highest sales and quantity 3. Who are our top customers? 4. Which customer contributes more in revenue. 5. And drilling option so I can view specific Market, customer, revenue etc.

Data Exploratory analysis through SQL

1. Show all Customer and Transaction records

   ```
   SELECT * FROM sales.customer;

   SELECT * FROM sales.transactions;
   ```

2. Show total customers

   ```
   SELECT count(*) FROM sales.customers;
   ```

3. Show transactions for Chennai market (market code for Chennai is Mark001)

   ```
   SELECT * FROM sales.transactions
   WHERE market_code = 'mark001';
   ```

4. Show distinct product codes that were sold in Chennai

   ```
   SELECT  distinct(product_code) FROM sales.transactions
   where market_code = 'mark001';
   ```

5. Show transactions where the currency is US dollars

   ```
   SELECT * from transactions where currency="USD"
   ```

6. Show transactions in 2020 join by date table

   ```
   SELECT * from transactions as t
   inner join date as d on t.order_date = d.date
   where year = 2020;
   ```

7. Show total revenue in the year 2020,

```
SELECT sum(sales_amount) from transactions as t
inner join date as d on t.order_date = d.date
where d.year=2020 and t.currency="INR\r" or t.currency="USD\r";
```

8. Show total revenue in year 2020, January Month,

```
SELECT sum(sales_amount) from transactions as t
inner join date as d on t.order_date = d.date
where d.year=2020 and d.month_name = 'january' and (t.currency="INR\r" or
t.currency="USD\r");
```

9. Show total revenue in year 2020 in Chennai

```
SELECT sum(sales_amount) from transactions as t
inner join date as d on t.order_date = d.date
where d.year=2020 and market_code = 'mark001' and  (t.currency="INR\r" or
t.currency="USD\r");
```

10. Show total sales by year

```
SELECT year,sum(sales_amount) from transactions as t
inner join date as d on t.order_date = d.date
where t.currency="INR\r" or t.currency="USD\r"
group by year;
```

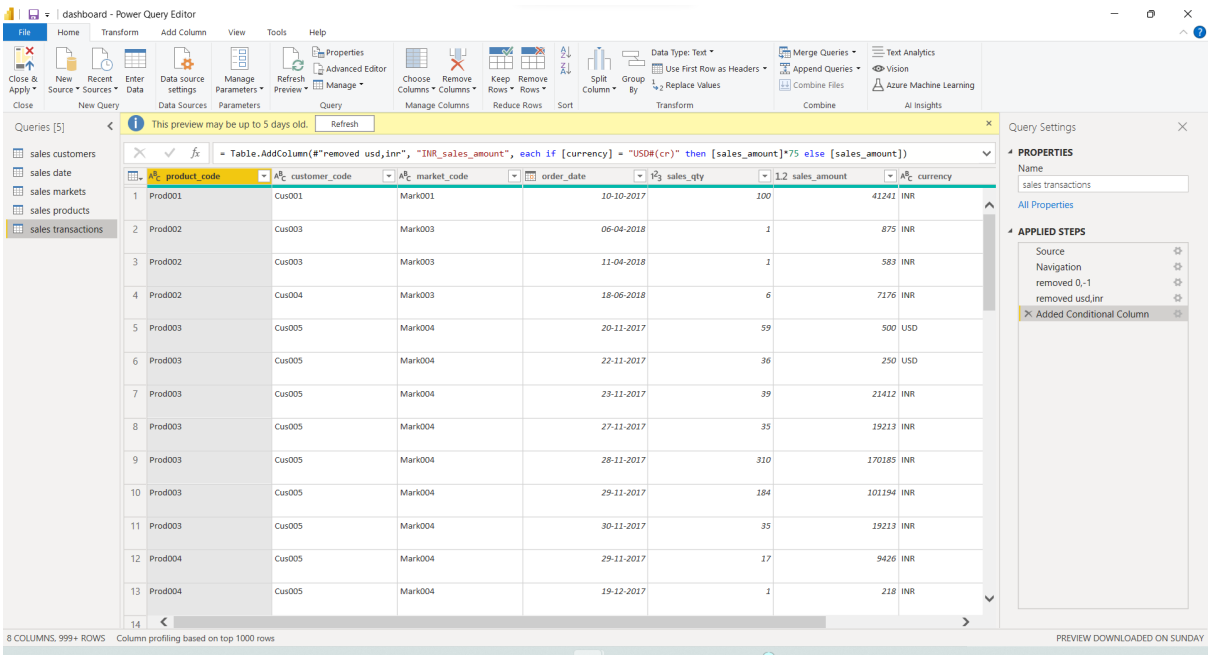
11. Show top product

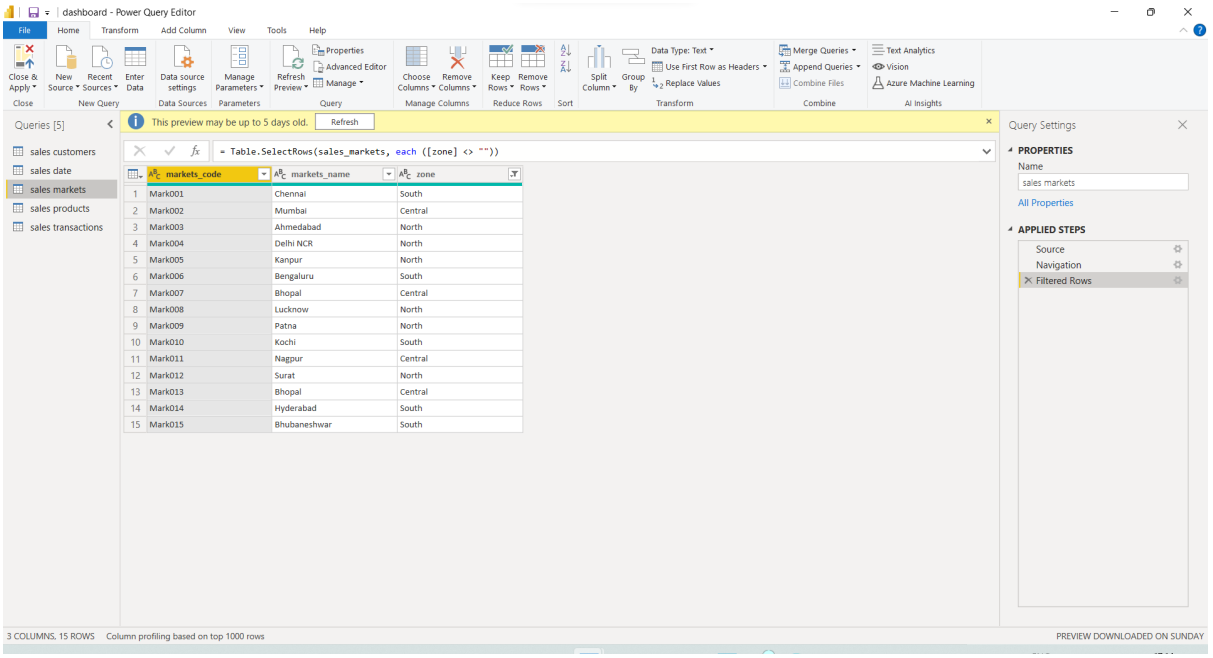
```
SELECT product_code ,sum(sales_amount) as top_product from transactions as t
group by product_code
order by top_product desc;
```

ETL (Extraction-Transformation-load)

After EDA(exploratory data analysis) imperative data were extracted from Database, then data were Transformed, structured, and modeled in power bi for visualization. The AtliQ hardware Dataset transaction data was organized as a fact table and product, market, date & customer were organized as dimension tables for filtering data.

The following steps were done in Power BI to transform the data table to be ready for analysis purposes:

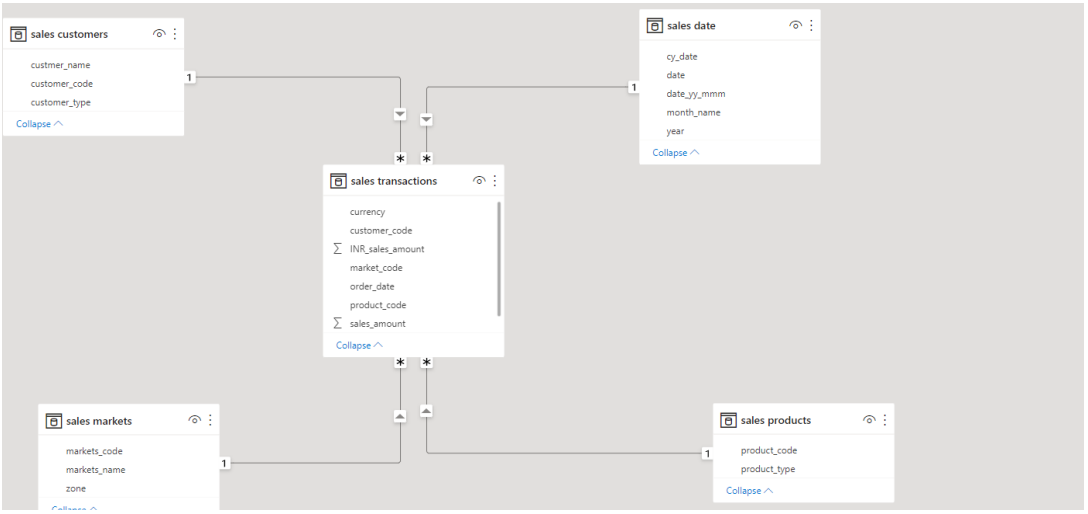




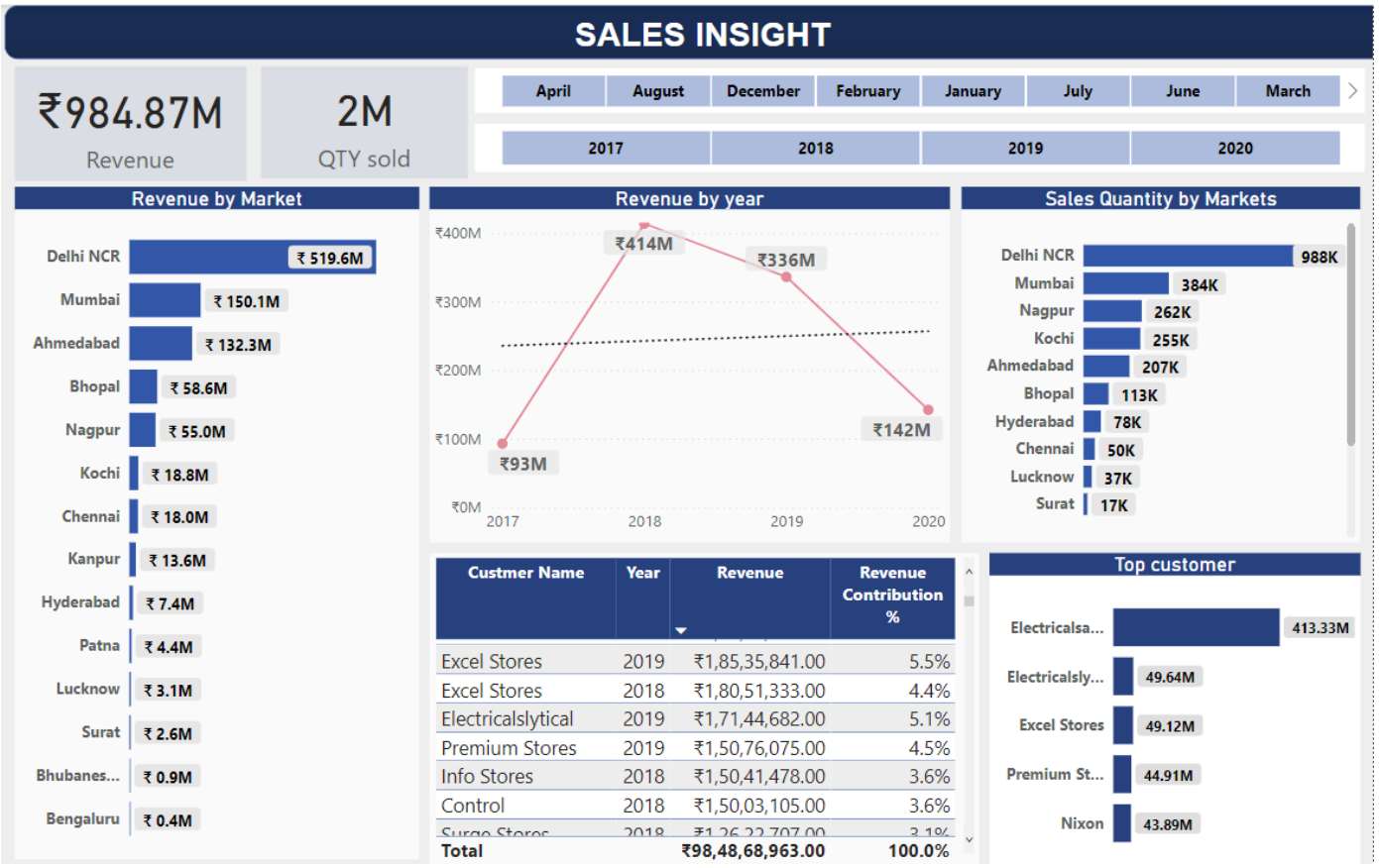
Data Model

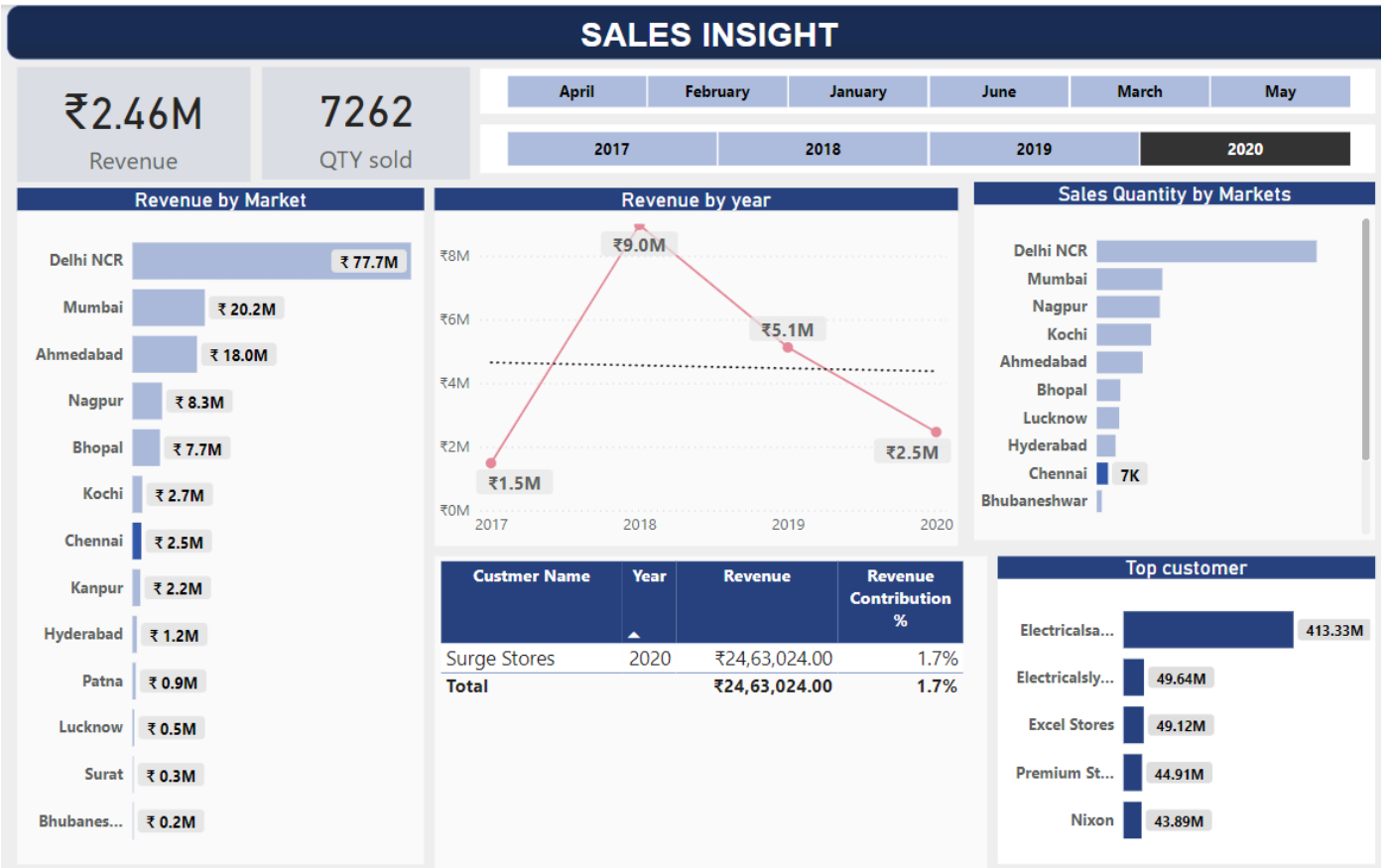
Below is a screenshot of the data model, after cleansing and preparing the tables.

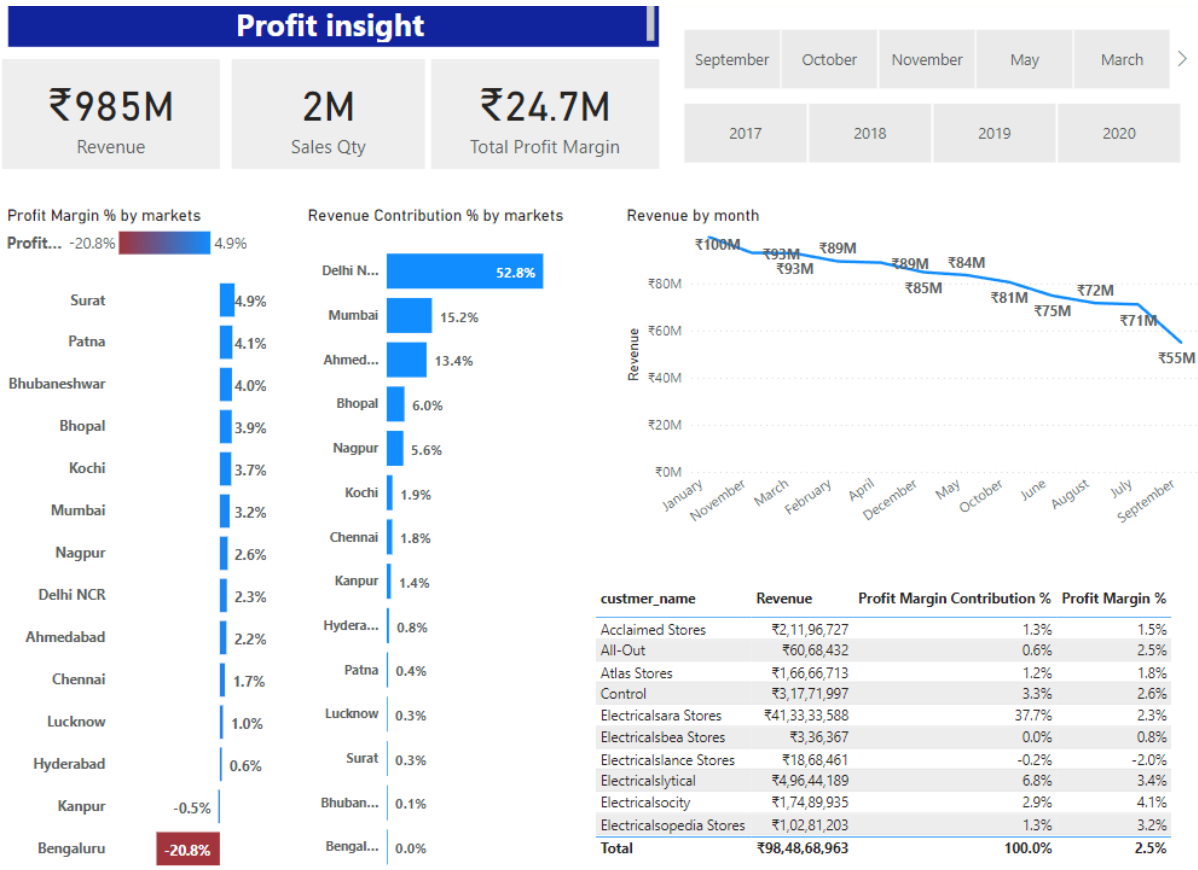
We can see that the FACT table is connected to four dimension tables with the correct relationship established(1 to *) between dimension and fact tables.



AtliQ hardware Analysis Dashboard







custmer_name	Revenue	Profit Margin Contribution %	Profit Margin %
Acclaimed Stores	₹2,11,96,727	1.3%	1.5%
All-Out	₹60,68,432	0.6%	2.5%
Atlas Stores	₹1,66,66,713	1.2%	1.8%
Control	₹3,17,71,997	3.3%	2.6%
Electricalsara Stores	₹41,33,33,588	37.7%	2.3%
Electricalsbea Stores	₹3,36,367	0.0%	0.8%
Electricalslance Stores	₹18,68,461	-0.2%	-2.0%
Electricalslytical	₹4,96,44,189	6.8%	3.4%
Electricalsocity	₹1,74,89,935	2.9%	4.1%
Electricalsopedia Stores	₹1,02,81,203	1.3%	3.2%
Total	**₹98,48,68,963**	**100.0%**	**2.5%**

Conclusion:

Here is an AtliQ hardware Analysis Dashboard where the manager can view all query answers. we see who are the top customer and AtliQ decide to give them special service, Revenue by the market as well as profit contribution, profit margin of each market, year-wise, loss-making customers, revenue trend, and much more insight from visualization. So the business manager can take critical decisions for the business based on data.