Data Analysis Project

Purpose:

To unlock sales insights that are not visible before for sales team

for decision support and automate them to reduced manual time spent in data gathering.

Stakeholder:

Sales Director, Marketing Team, Customer Service Team, Data and Analytics Team, IT

End- Result:

An automated dashboard providing quick and latest sales insights in order to support data driven decision making.

Success Criteria:

Dashboard uncovering sales order insights with latest data available.

Sales team able to take better decisions and prove 10% cost savings of total spend.

Sales Analyst stop data gathering manually to save 20% of their business time and

reinvest it value added activity.

Inner join:

SELECT sales.transactions.*,sales.date.* FROM sales.transactions INNER JOIN sales.date ON sales.transactions.order_date=sales.date.date where sales.date.year="2020";

1. Show all customer records

```
SELECT * FROM customers;
```

2. Show total number of customers

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

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

```
SELECT * FROM transactions where market_code='Mark001';
```

4. Show distrinct product codes that were sold in chennai

```
SELECT distinct product_code FROM transactions where market_code='Mark001';
```

5. Show transactions where currency is US dollars

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

6. Show transactions in 2020 join by date table

```
SELECT transactions.*, date.* FROM transactions INNER JOIN date ON
transactions.order_date=date.date where date.year=2020;
```

7. Show total revenue in year 2020,

```
SELECT SUM(transactions.sales_amount) FROM transactions INNER JOIN date ON
transactions.order_date=date.date where date.year=2020 and
transactions.currency="INR\r" or transactions.currency="USD\r";
```

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

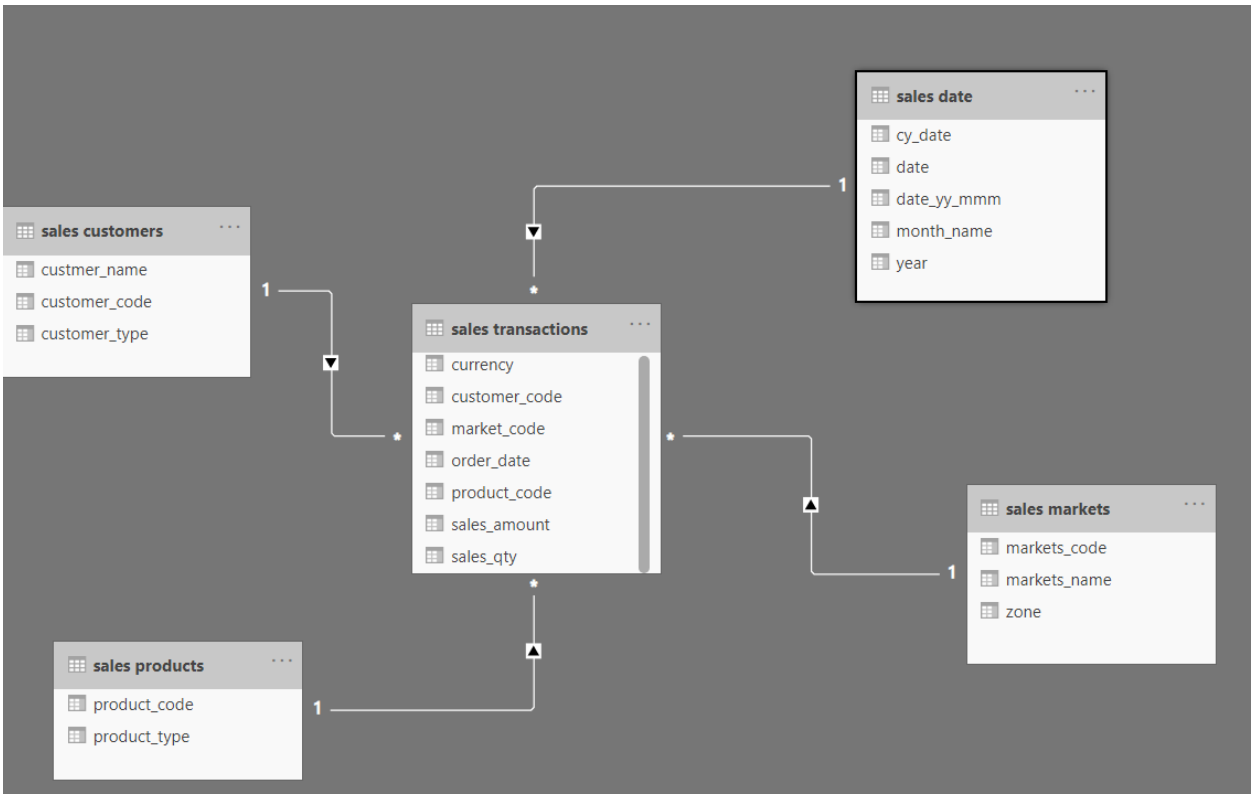
```
SELECT SUM(transactions.sales_amount) FROM transactions INNER JOIN date ON
transactions.order_date=date.date where date.year=2020 and and
date.month_name="January" and (transactions.currency="INR\r" or
transactions.currency="USD\r");
```

9. Show total revenue in year 2020 in Chennai

```
SELECT SUM(transactions.sales_amount) FROM transactions INNER JOIN date ON
transactions.order_date=date.date where date.year=2020 and
transactions.market_code="Mark001";
```

Star schema:

We need to established relationship between the different table and created the data modelling.


sales date
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market_code
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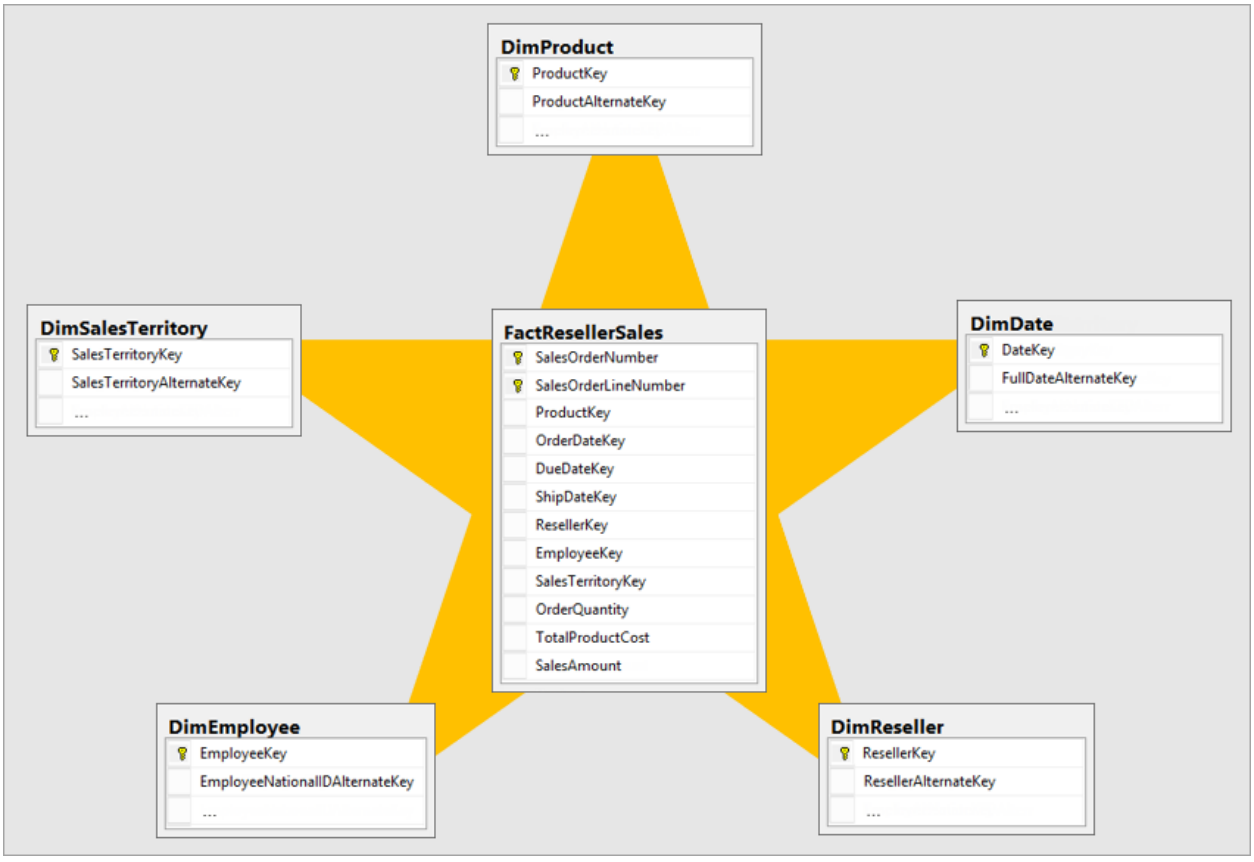
DimProduct
ProductKey
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OrderDateKey
DueDateKey
ShipDateKey
ResellerKey
EmployeeKey
SalesTerritoryKey
OrderQuantity
TotalProductCost
SalesAmount
DimDate
DateKey
FullDateAlternateKey
...
DimEmployee
EmployeeKey
EmployeeNationalIDAlternateKey
...
DimReseller
ResellerKey
ResellerAlternateKey
...

Transform data to data cleaning, it will launch power query editor.

Firstly, removed the unnecessary data like New York and Paris from sales market table.

Remove negative value from sales transactions table , uncheck the sales_amount=0,-1.

Convert currency type USD to INR.

- Formula to create norm_amount column (powerbi)

```
= Table.AddColumn(#"Filtered Rows", "norm_amount", each if [currency] = "USD" or
[currency] ="USD#(cr)" then [sales_amount]*75 else [sales_amount], type any)
```

- Select distinct (transactions.currency) from transactions;(MySQL)

```
'INR'

'INR\r'
```

- Select count(*) from transactions where transactions.currency='INR\r';

```
'150000'
```

- Select count(*) from transactions where transactions.currency='INR';

```
'279'
```

```
5 •  Select * from transactions where transactions.currency='USD\r' or transactions.currency='USD';
6
7
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

product_code	customer_code	market_code	order_date	sales_qty	sales_amount	currency
Prod003	Cus005	Mark004	2017-11-20	59	500	USD
Prod003	Cus005	Mark004	2017-11-22	36	250	USD
Prod003	Cus005	Mark004	2017-11-20	59	500	USD
Prod003	Cus005	Mark004	2017-11-22	36	250	USD