SQL – Power BI
Project
Date: 31-10-2023

Dataset: AdventureWorksDW2019.bak
Link to the dataset: https://learn.microsoft.com/en-us/sql/samples/adventureworks-install-configure?view=sql-server-ver16&tabs=ssms

Summary:
Adventurework is the database containing information relating to various information: sales, date sale, products, subproducts and customers.
Based on the following email, we will extract important requirements and from the requirements, we will connect related tables and find the insights then present the insights into powerBI.

Email:

David - Sales Manager:
Hi Nguyen!
I hope you are doing well. We need to improve our internet sales reports and want to move from static reports to visual dashboards.
Essentially, we want to focus it on how much we have sold of what products, to which clients and how it has been over time.
Seeing as each sales person works on different products and customers it would be beneficial to be able to filter them also.
We measure our numbers against budget so I added that in a spreadsheet so we can compare our values against performance.
The budget is for 2021 and we usually look 2 years back in time when we do analysis of sales.
Let me know if you need anything else!

From the email we have listed down the following tasks for this dataset:
1) Create updatable dashboard for internet sales with customers and products sell best.
2) Create dashboard to filter customer with detailed internet sales
3) Create dashboard to filter products with detailed internet sale.
4) Overall dashboards for KPI comparing budget and sales.

Project stages:

Stage 1: upload dataset and get the dataset up to date

- Upload AdventureWorksDW2019.bak
- Updating code:
  adventurework_updating_code.SQL

Stage 2: prepare tables and formatting.

Customer table	Dbo.dimCustomer → dim_calendar_prepared.SQL
Product table	Dbo.dimProduct → dim_product_prepared.SQL
Internet sale	Dbo.Internetsales → fact_internetsale_prepared.SQL
Date	Dbo.dimdate → dim_calendar_prepared.SQL
Buget table	CSV import → buget_adventurework.csv

Stage 3: upload to PowerBI, create measures and dashboards

A)

Measures:

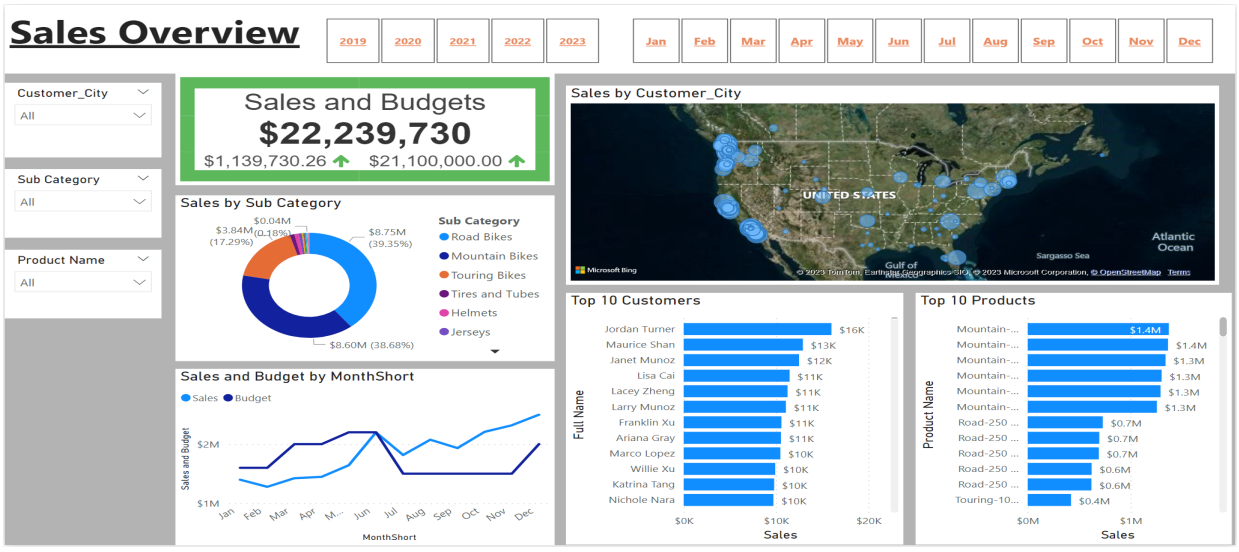
Sales = SUM (fact_internetsale_prepared[SalesAmount])

Budget = SUM (buget_adventurework[buget])

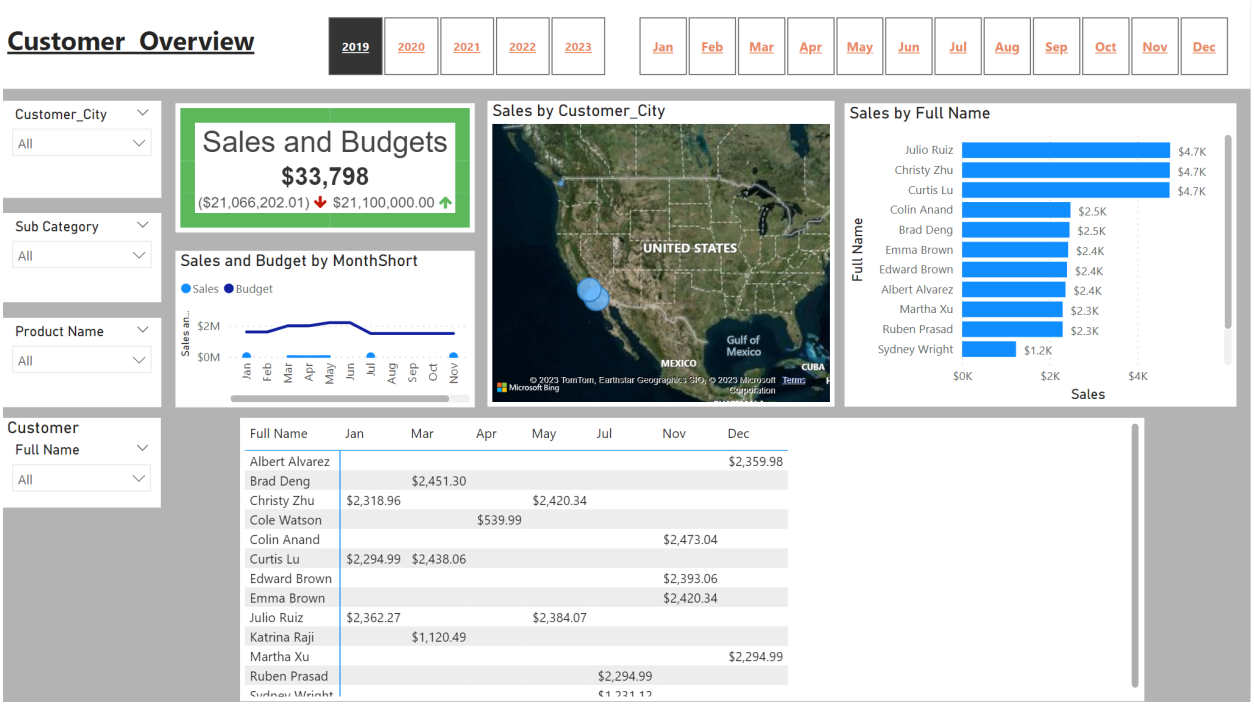
Sales / Budget = [Sales] - [Budget]

B)

Sale Overview dashboards	- Filter for city - Filter for sub category - Filter for products - KPI comparing sale and budget - Donut chart for sub category and sales - Line chart for budget and sale (monthly) - Filter for years and month

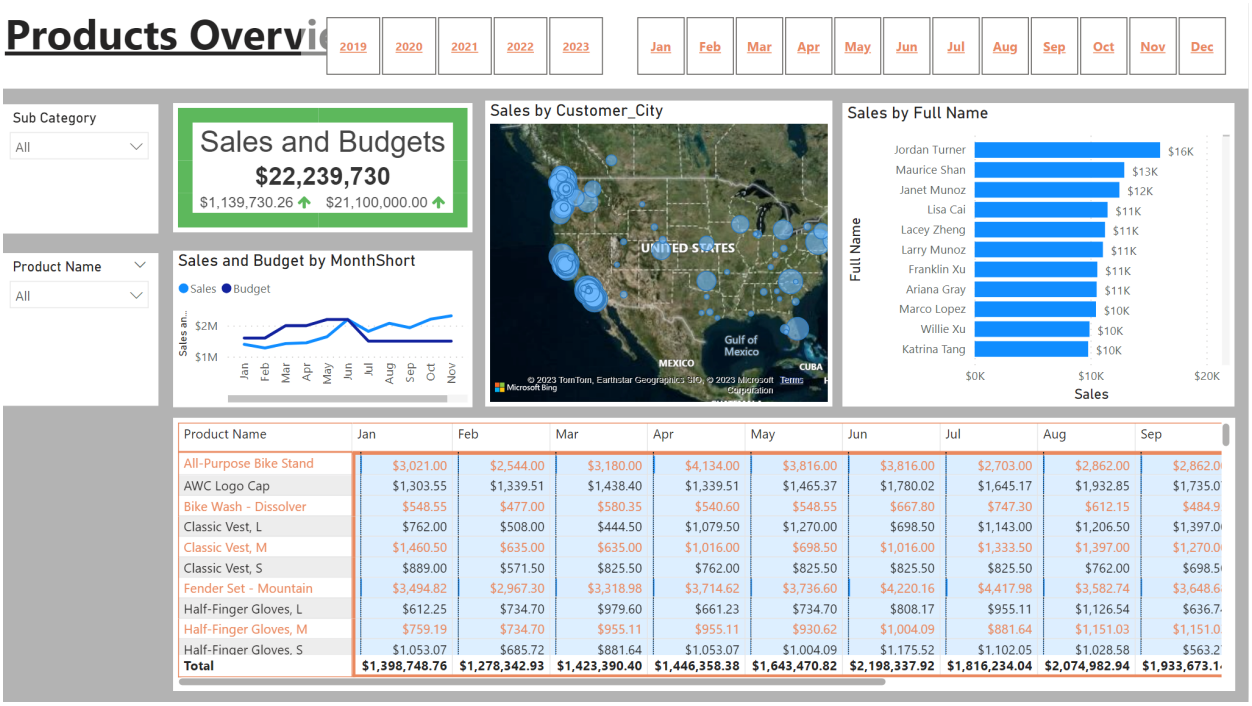


Customer Overview dashboards	- Filter for city - Filter for sub category - Filter for products - Filter for Customer - KPI comparing sale and budget - Line chart for budget and sale (monthly) - Filter for years and month - Top 10 customers based on sale.



C) Product dashboard

Product Overview dashboards	- Filter for sub category - Filter for products KPI comparing sale and budget - Line chart for budget and sale (monthly) - Filter for years and month - Top 10 products based on sale.



PowerBI – Adventurework Project Link:

https://app.powerbi.com/links/Spchi2fbCR?ctid=8d281d1d-9c4d-4bf7-b16e-032d15de9f6c&pbi_source=linkShare