**Project Title:** Power BI Dashboards - Business, Analytics, and Visualization Projects

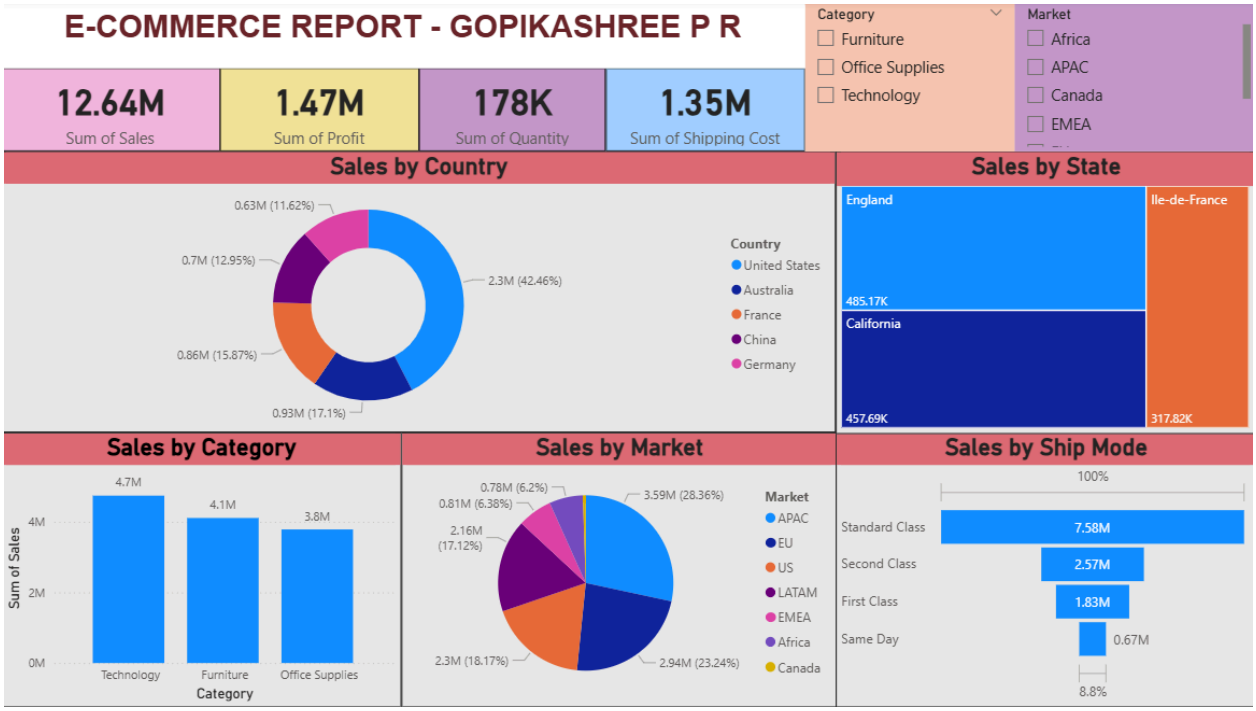
## 📊 1. E-Commerce Sales Report using Power BI

**Description:**
Developed a dynamic Power BI dashboard to analyze e-commerce sales performance across regions, products, and customer segments. Key metrics such as total sales, profit margins, customer acquisition trends, and top-performing products were visualized using bar charts, slicers, maps, and KPI cards. The report helped identify high-revenue categories and sales seasonality for strategic decision-making.

**Tools/Techniques Used**:

- **Power Query** was used to clean and transform raw data before loading it into Power BI.
- **DAX (Data Analysis Expressions)** was applied to create calculated measures like total sales, profit margins, and customer acquisition trends.
- **Power BI Desktop** was utilized to build and visualize the dashboard, while **Power BI Service** was used to share and collaborate on the final report.

**Output:**



## 🚢 2. Titanic Data Visualization using Power BI

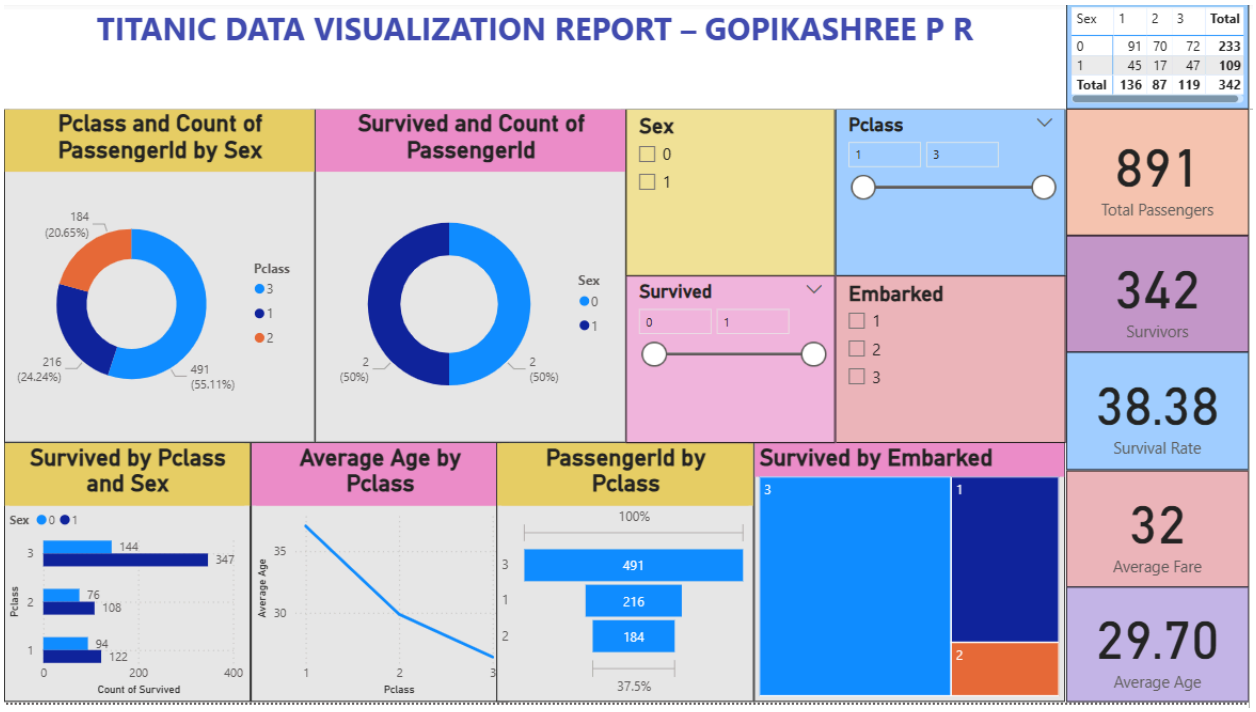
**Description:**
Created an interactive Power BI report based on the Titanic dataset to uncover survival patterns. Utilized filters and visuals to explore relationships between survival rate and factors like age, gender, passenger class, and embarkation port. The dashboard provided intuitive insights into demographic distributions and key survival trends for further data storytelling.

**Data Source**:
The dataset is sourced from the public Titanic dataset available on Kaggle, which includes information about passengers, such as age, gender, passenger class, fare, and survival status. Data preprocessing steps included handling missing values, such as filling in missing age data using the median, and encoding categorical variables (e.g., gender, embarkation port) for visualization in Power BI.

**Tools/Techniques Used**:

- **Power Query** was used to clean and transform the Titanic dataset, including handling missing values and categorizing data.
  **DAX (Data Analysis Expressions)** was used to create calculated measures like survival rate percentages and the distribution of passengers by class and gender.
- **Power BI Desktop** was utilized to build the report, incorporating various visuals like bar charts, pie charts, and slicers to create an interactive user experience.

**Output:**



## 📈 3. Infosys Stock Performance Dashboard

**Description:**
Built a Power BI dashboard to track Infosys Limited's stock performance over time using historical stock price data. Visualized trends in opening/closing prices, trading volume, and moving averages. Integrated line charts, date filters, and summary metrics to support investment analysis and highlight periods of significant price movement.

**Data Source**:
The data is sourced from publicly available stock market APIs (e.g., Yahoo Finance API) containing daily historical stock prices, including opening/closing prices, high/low values, trading volumes, and date-wise information. Preprocessing involved cleaning the data, ensuring consistent date formatting, and calculating moving averages over different periods (e.g., 7-day, 30-day) to identify trends.

**Tools/Techniques Used**:

- **Power Query** was used to import and transform the raw stock price data from the API, ensuring it was in a usable format.
- **DAX (Data Analysis Expressions)** was applied to create calculated measures, including moving averages and percentage changes in stock prices.
- **Power BI Desktop** was used to create line charts and summary metrics, integrating date filters to allow users to analyze stock performance over different time periods.

**Output**: