**Functional Requirement Document (FRD)**

**Project Name:** Adidas Sales Performance Dashboard

**1. Dashboard Sections**

The Power BI dashboard consists of the following key sections:

* **Sales Overview:** Displays total sales, profit, and margin trends over time.
* **Regional Analysis:** Compares sales and profitability across regions, states, and cities.
* **Product Performance:** Highlights top/least-performing products and categories.
* **Retailer Analysis:** Shows contribution of different retailers to total sales and profit.

**3. Data Requirements**

The dashboard uses the following dataset columns from the Excel file (Adidas US Sales Datasets.xlsx):

Calender (dimention) : Date,Day,Month name,Month Number ,Quarter, Year

Products : Products Name

Retailer : City, Region, state , Retailer ID , Retailer

State : Invoice date, products, units sold ,total sales , operating profit , operating margin ,sales method,retailer id

**4. Filters / Slicers**

The dashboard includes interactive filters and slicers for:

* Sales overview : Products , year
* Product Performance : Region , Date
* Retailer Analysis : Date
* Region Analysis : Date , Sales Method

**5. Visuals / Charts**

Each section of the dashboard uses the following visualizations:

* **Sales Overview:**
  + KPI Cards – Total Sales, Profit, Margin %
  + Line Chart – Sales Trend over Time
  + Dounght Chart - Total Sales by Sales Method (Online/Offline/Wholesale).
  + Column Chart – profit by product
* **Regional Analysis:**
  + Map Visualization – Sales by Region
  + Bar Chart – State-wise Sales and Profit
  + KPI Card – region having high sales
* **Product Performance:**
  + Bar Chart – Top Products by Sales
  + Pie/Donut Chart – Total sales By Profit
  + KPI Card – Least/high selling Product
  + Metrix/Table – products,total sales,profit,unit sold,profit per unit
* **Retailer Analysis:**
  + Column Chart – Sales by Retailer
  + KPI Comparison – Retailer Producing Most Profir
  + Pie chart – retailer by proft margin
  + Guage – Total units sold by retailer

**6. Interactivity**

The Power BI dashboard provides the following interactive features:

* Cross-filtering between visuals for dynamic insights.
* Drill-down functionality from **Region → State → City → Product**.
* Hierarchical date navigation (**Year → Quarter → Month → Day**).
* Tooltip details on hover for all visuals.

**7. Calculations / Measures**

Key **DAX measures** used in Power BI include:

**Calculate Table** (Created using dax):-

Calender =

   VAR MinDate =

       CALCULATE(MIN(Sales[Invoice Date]),ALL(Sales))

   VAR MaxDate =

       CALCULATE(MAX(Sales[Invoice Date]),ALL(Sales))

   RETURN

   ADDCOLUMNS(

        CALENDAR(MinDate,MaxDate),

        "Year",YEAR([Date]),

        "Month Number",MONTH([Date]),

        "Month Name",FORMAT([Date],"MMMM"),

        "Quarter","Q" & FORMAT([Date],"Q"),

        "Day",DAY(DAY([Date])

))

**Sale Table:-**

* **Total Sales** = SUM('Data'[Total Sales])
* **Total Profit** = SUM('Data'[Operating Profit])
* **Profit Margin (%)** = DIVIDE([Total Profit], [Total Sales])
* **Average Price per Unit** = AVERAGE('Data'[Price per Unit])
* **Total Units Sold** = SUM('Data'[Units Sold])
* **Profit per unit** = DIVIDE(SUM(Sales[Operating Profits]),SUM(Sales[Units Sold]))

**Retailer Table =**

* **Profit By Region** = CALCULATE([Total Profit],VALUES(Retailer[Region]))
* **Region Margin** = DIVIDE([Profit By Region],[Sales By Region])
* Sales By Region = CALCULATE([Total Sales],VALUES(Retailer[Region]))

**8. Export / Reporting Needs**

* Export dashboard visuals to **PDF** and **Excel** for management reports.
* **Scheduled refresh** of Power BI dataset (daily or weekly).
* Share live dashboard link via **Power BI Service** for executive access.
* Automated **email subscription reports** to stakeholders.

**9. Notes / Special Instructions**

* Ensure **date format** (YYYY-MM-DD) is consistent in the dataset before Power BI import.
* Validate **relationships** between tables if future data sources are added.
* Maintain uniform naming conventions for **regions, products, and retailers**.
* Dashboard should maintain **responsive layout** across desktop and Power BI web view.
* Apply **data privacy and role-based access controls** when shared via Power BI Service.