**Walmart Sales Dashboard - Power BI**

**Project Description**

The goal of this project is to create an interactive Power BI dashboard that analysis the sales performance across three Walmart branches in France (Paris, Bordeaux, Nantes) between January and mars 2019.

**Data Source & Description**

A single csv dataset containing 13 attributes from all point-of-sale systems. The attributes are:

1. **Branch Name** (e.g., A, B and C)
2. **City** (Paris, Bordeaux, Nantes)
3. **Customer Type** (Member / Normal)
4. **Order Date** (Date of transaction)
5. **Sales Amount** (Total revenue per invoice)
6. **Gender** (Male / Female)
7. **Invoice ID** (Unique identifier for each transaction)
8. **Cost** (Total cost of goods sold per invoice)
9. **Payment Method** (Cash, Credit Card, E-wallet)
10. **Period of Day** (Morning, Afternoon, Evening)
11. **Product Line** (e.g., Electronics, Food & Beverages, Health & Beauty, etc.)
12. **Quantity** (Number of units sold per line item)
13. **Unit Price** (Price per unit of product)

**Note:** A calculated field for **Profit** (Sales Amount - Cost) must be created within the data model.

**Key Features:**

* 3-page interactive report (Executive Overview, Performance Drill-down, Detail View)
* Sales and profit analysis by city, product line, customer demographics
* Real-time pop up filtering and data exploration capabilities
* Design using blue, light white and yellow color scheme

**Findings Summary**

**Key Performance Indicators**

* **Total Revenue:** $307,587
* **Total Profit:** $55,672
* **Transaction Count:** 1,000
* **Customer Split:** 501 Members vs 499 Normal customers

**City Performance**

* **Branch C** led with $105,303 revenue
* All three branches showed consistent profit margins (~15.6%)
* Bordeaux and other cities demonstrated balanced performance

**Product Line Analysis**

* **Food & Beverages** generated highest revenue ($53K)
* **Health & Beauty** showed lowest sales ($47K)
* All product lines maintained healthy profit margins

**Customer Insights**

* **Female customers** contributed slightly higher sales ($84K vs $76K male)
* **Member customers** showed stronger purchasing behavior
* **Evening hours** generated highest sales ($8K)

**Payment Methods**

* Balanced distribution across payment types:
  + Credit Card: 34%
  + E-wallet: 33.2%
  + Cash: 32.8%

**Operational Patterns**

* **Afternoon/Evening** periods showed highest transaction volume
* Consistent performance across all three branches
* Stable profit margins across different product categories

**Business Implications**

* Member programs are effective and should be expanded
* Evening operations are crucial for revenue generation
* All branches maintain consistent performance standards
* Opportunity to boost Health & Beauty category sales

**Technical Implementation**

* Power BI Desktop with DAX calculations
* Cross-filtering interactive visuals
* Mobile-responsive design
* CSV data integration with 13 attributes

**Business Recommendations:**

* **Expand Member Loyalty Programs:** Leverage the stronger purchasing behavior of members to increase customer lifetime value and foster loyalty.
* **Optimize Evening Operations:** Align staff scheduling and inventory management with evening peak sales hours to maximize revenue capture.
* **Boost Health & Beauty Sales:** Implement targeted marketing and promotions for the underperforming Health & Beauty category to drive growth and balance product line performance.