**Toy Store KPI Report in Power BI**

**Project Overview**

This project involves creating a Power BI KPI report for Maven Toys, a toy store chain with multiple locations in Mexico. The report covers transactional records from January 2022 to September 2023, along with product and store location information. The goal is to provide key insights into orders, revenue, and profit.

**Objectives and Steps Followed**

**Objective 1: Connect and Profile the Data**

**Tasks:**

1. **Connect to Data Sources**: Connect to sales, products, stores, and calendar CSV files.
2. **Review and QA**: Review table columns for blank or null values, ensure accurate datatypes, and identify primary and foreign keys.
3. **Data Profiling**: Determine the number of transactions recorded and the number of stores Maven Toys operates.
4. **Add Calculated Columns**: Add ‘start of month’ and ‘start of week’ calculated columns in the calendar table.

**Objective 2: Create a Relational Model**

**Tasks:**

1. **Load Tables and Create Relationships**: Load the tables into the data model and create relationships from the sales table to the products, stores, and calendar tables.
2. **Star Schema**: Ensure the model forms a star schema with 1

relationships between fact and dimension tables.

1. **Date Hierarchy**: Create a date hierarchy containing ‘start of month’, ‘start of week’, and ‘date’ fields.
2. **Hide Foreign Keys**: Hide all foreign keys in the sales table from the report view.

**Objective 3: Add Calculated Measures and Fields**

**Tasks:**

1. **Calculated Columns**: Create calculated columns in the sales table to pull in ‘cost’ and ‘price’ from the products table, then calculate revenue and profit for each transaction.
2. **Define Measures**: Create measures to calculate the count of orders (‘total orders’), sum of revenue (‘total revenue’), and sum of profit (‘total profit’).
3. **BONUS**: Define measures to calculate total revenue and profit without referencing the calculated columns in the sales table.

**Objective 4: Build an Interactive Report**

**Tasks:**

1. **KPI Card Visuals**: Add KPI card visuals showing ‘total orders’, ‘total revenue’, and ‘total profit’ for the current month, along with monthly trends for each metric.
2. **Slicer for Store Location**: Add a slicer to filter the report page by store location.
3. **Visualize Data**: Add a bar chart showing ‘total orders’ by product category and a line chart showing ‘total revenue’ with the date hierarchy on the x-axis.
4. **Final Report Layout**: Assemble the charts into a logical layout, adjust formatting, alignment, and polish to finalize the report.

**Tools and Technologies Used**

* **Power BI**: For data connection, modeling, and visualization
* **DAX**: For creating calculated columns and measures
* **CSV Files**: As data sources for sales, products, stores, and calendar information

**Key Insights**

* Provided a detailed analysis of orders, revenue, and profit over time and by product category.
* Enabled filtering by store location to focus on specific regions.
* Highlighted key performance indicators (KPIs) for the current month and trends