Toy Store KPI Report – *Breakdown*

THE **SITUATION**

* You’re a brand-new **Data Analyst** for Maven Toys, a toy store chain with multiple store locations in Mexico.

THE **ASSIGNMENT**

* You have access to data containing transactional records from January 2022 – September 2023, along with information about products and store locations.
* **Your goal is to build a simple, interactive report that the leadership team can use to monitor key business metrics and high-level trends**.

THE **OBJECTIVES**

1. Connect and profile the data.
   * Your first objective is to connect to the source data files, conduct basic profiling and QA tasks, and familiarize yourself with the tables and fields you’ll be working with.
     + **TASKS** 
       - Connect to the **sales**, **products**, **stores**, and **calendar** csv files.
       - Review table columns, check for blank or null values, confirm that datatypes are accurately defined, and identify any primary and foreign keys.
       - Take a moment to profile the data. How many transactions were recorded? How many stores do Maven Toys operate? What are the lowest and highest priced products?
       - Add calculated columns in the **calendar** table for ‘start of month’ and ‘start of week’.
2. Create a relational model.
   * Your second objective is to create a relational data model by defining relationships between fact and dimension tables, creating simple hierarchies, and adjusting model properties.
     + **TASKS**
       - Load the tables to the data model and create relationships from the **sales** table to the **products**, **stores**, and **calendar** tables.
       - Confirm that you are following data modeling best practices. Your model should take the form of a star schema, with 1:many relationships between fact and dimension tables.
       - Create a date hierarchy containing the ‘start of month’, ‘start of week’, and ‘date’ fields.
       - Hide all foreign keys in the **sales** table from the report view.
3. Add calculated measures & fields.
   * Your third objective is to enhance the data model and prepare for analysis by defining new measures and calculated fields.
     + **TASKS**
       - Create calculated columns in the **sales** table to pull in ‘cost’ and ‘price’ from the **products** table, then use those fields to calculate revenue and profit for each transaction.
       - Create measures to calculate the count of orders (‘total orders’), sum of revenue (‘total revenue’) and sum of profit (‘total profit’).
       - **BONUS**: Define new measures to calculate total revenue and profit without referencing the calculated columns in the **sales** table.
4. Build an interactive report.
   * Your final objective is to visualize the data and create an interactive report to show orders, revenue and profit over time and by product category.
     + **TASKS** 
       - Add KPI card visuals showing ‘total orders’, ‘total revenue’ and ‘total profit’ for the current month, along with monthly trends for each metric.
       - Add a slicer to filter the report page by store location.
       - 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.
       - Assemble the charts into a logical layout and adjust formatting, alignment and polish to finalize the report as you see it.