

CASE STUDY #2

Overview:

You've just been hired as a Web Analytics Manager for **Maven Toy Emporium**, an ecommerce toy shop, to help build a faster and more efficient reporting process. Currently, it takes multiple analysts' weeks to create quarterly business reports for the board. You've been asked to help build an end-to-end Power BI solution to help the company streamline reporting and grow the business.

Existing Environment:

You have access to Maven Toy Emporium's entire online data repository, which includes information about products, stores, sales, customers, inventory, and projections:

Source	Table Name	Column Name	Data Type	Example
Azure SQL Database	Sales	Sale_ID	INT	15
		Date	Date	2021-07-28
		Product_ID	INT	31
		Product_Name	String	Teenie Genies
		Unit_Sales	INT	1
		Region_ID	INT	3
		Customer_ID	INT	101
	Inventory	Stock_Date	Date	2020-09-06
		Store_ID	INT	5
		Product_ID	INT	18
		Stock_On_Hand	INT	175
Dataverse	Customers	Customer_ID	INT	101
		First_Name	String	Adam
		Last_Name	String	Juan
		Email_Address	String	ajuan@mavencustomer.toy
		Billing_Address	String	555 Main St, Somewhereville
		Purchased_Last_30_Days	Boolean	Yes
	Products	Date_Time_Created	Date/Time	2015-05-31 11:23:00
		Product_ID	INT	38
		Product_Name	String	Action Figure
		Product_Category	String	Toys
		Cost	Currency	\$9.99
		Price	Currency	\$15.99
SharePoint Online	Projections	Product_ID	INT	19
		Forecast_Sales	INT	300,000
		Month_Start_Date	Date	2022-03-01
	Regions	Region_ID	INT	4
		Region_Name	String	Central

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Additional Context:

- You plan to use Power BI to create a custom Calendar table with the following fields: *Date, Start of Month, End of Month, Month Name, Quarter, and Year*
- The calendar table is connected to the Projections table via a one-to-many relationship
- You've been asked to create several deep-dive analyses, which can be accessed within the report using custom navigation links
- You plan to create some additional reports to help you analyze the data, which should not be included in the quarterly report for the board
- Analysts on your team are assigned to different regions, and should only be able to see data from that specific region when building reports

Reporting Requirements:

- Reports should be accessible from Power BI Service within 2 days of the end of a quarter and refreshed with minimal effort
- Access to reports should be controlled by an email-enabled security group, which can be customized with minimal effort
- The leadership team has requested visuals showing:
 - Unit sales by product category compared to forecasts
 - Revenue trending over time
 - Quarterly revenue compared to the same quarter last year
 - Quarter-over-quarter changes in cost