# Sales analytics Project

## Introduction

This project was developed by M.Eng. Ernesto Cantú, using a Toy Manufacturer Historical Database found on:

<https://www.kaggle.com/datasets/kyanyoga/sample-sales-data?resource=download>

As a Software Engineering Professor at Tec de Monterrey, I face so many times the struggle on how I will teach abstract topics such as Data Base querying without a purpose.

Let’s face it, learning SQL is such a simple thing as learning to do a “Select \* FROM…” but, what do you really need to know is how to give context to the Result Set. What does the business need’s to know about the data you are analyzing.

***This Project’s Purpose***

The project was used to multiple purposes:

1. As a Data Engineering exercise to show my Software Engineering students the difference between good data storing (hardware level) and good data visualizing (business level).
   1. I stored data on a proper database
   2. I transformed some values in order to have a better understanding.
2. As a Data Visualization exercise used on my Decision-Making Course
3. As part of my personal portfolio. Feel free to reach me out if you have any question.

***Contact***

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## Data description

I found the data on:

<https://www.kaggle.com/datasets/kyanyoga/sample-sales-data?resource=download>

Kaggle is a free source of datasets used for personal projects, like this one.

***Original data format***

The original dataset comes in a “CSV” file filled with a total of 2,823 records of sales done by the toy manufacturer. The manufacturer share the following data:

|  |  |
| --- | --- |
| Data field | Description |
| Order number | The sale’s unique identifier. As this file gives the whole description of the sale (including the products), this order number is repeated during the file. |
| Product Quantity | Sold Units per product |
| Unit Price | Sales unit price of the product. During the cleaning phase, I found out that this price varies so much from one sale to other. This can be because of many different customer contract conditions. |
| Sales (Product subtotal) | Product quantity \* unit price |
| Order Date | When the order was placed |
| Order Status | I included this to the analysis, but it can be removed. |
| Order Line | Represents the order in which a product was registered on a sale. Also can be removed. |
| Quarter, Month And Year | Metadata of the date |
| Product Line | Description of a group of related products |
| MSRP | Manufacturer’s Suggested Retail Price. |
| Product id | The product’s unique identifier. Give’s no further information. |
| Customer name | Comercial name |
| Customer Phone | Phone number |
| Customer’s Address | Street |
| Customer’s City | City |
| Customer’s State | State (Not all have info.) |
| Customer’s PS Code | Postal Code |
| Customer’s Country | Country |
| Customer’s Territory or Region | Continent |
| Contact | Customer’s contact |
| Deal Size | How big was the sale |