Storing and Retrieving Data Project

MASTER DEGREE PROGRAM IN DATA SCIENCE AND ADVANCED ANALYTICS

V Magazine – Business Process

Group 18

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1. Description of The Business Process

V Magazine is a fashion store with two units in Lisbon (Black and Pink Stores), Portugal, and one unit in Madrid (Red Store), Spain, that sells different types of clothes, shoes and accessories for men, women and children. The brand became extremely famous because of its unique fabrics and materials.

Besides having thousands of followers on Instagram, the store preferred to keep its exclusivity, so purchases can only be done in one of the three stores, with payment methods such as cash, credit card, debit card, MBWAY or PayPal.

The store organizes products into a hierarchy of parent categories. This corresponds to how products would be arranged in a specific product category for men, women or children. Each product has a specific price and description on the product table.

All the stores have information about the complete name, gender and phone number of the employees. Even though the sales are usually made by the seller, the manager can also do it in specific cases, and that is why there is a table that defines the role of the employee.

The customers are locals or tourists that come from diverse countries due to the stores being located in really touristic places. Furthermore, the store collects records of the customers to provide a better customer service, that include an identification number, the customer's first name, last name, gender, date of birth, street name, city or province, country, postal code and phone number. All the information about the addresses of the customers, employees and stores are kept together in a specific table.

When a purchase is made, the database records in the order table the store where the purchase occurred, the payment method used, promotion information, date of transaction. Also, in the order item table, all the products related to a specific order and amount of items purchased are stored. For each promotion period, the specified percentage discount is applied to the entire order. So, this brand's strategy during the promotion periods is to have all the products in store at a specific discount. Moreover, the system default is no promotion, so, we have a specific promotion ID for the periods without promotions.

The general manager decided to analyze the data of the promotion periods in order to develop marketing strategies for future promotions and increase their sales. For this specific analysis, the data used is a sample from the yearly sales period: in the last week of September (Fall Week) and in the last week of November (Black Week) in 2021 and 2022.

A Trigger was created to advertise changes in the inventory. For each new order, the total products on the inventory are updated, so the supplier can be contacted to provide more products if necessary.

Also, other triggers were created to store in a log table all the changes made in the tables of the database.

2. ERD