Universidad de Alcalá

Databases

Continous Assesment - Laboraroty (CAL1)

.

You want to design a database to store the information of a supermarket chain that has supermarkets distributed throughout the national territory. In large cities, there may be more than one, in different districts.

The client needs to manage the workers of each supermarket, which can be cashiers or product repleteners, whose name and telephone numbers (landline and mobile) are required to be stored. Cashiers work full-time while repleteners work part-time a certain number of hours. Each worker is assigned an average grade as a result of an evaluation carried out on him by the rest of his colleagues. All workers can choose to work in the morning or in the afternoon.

Customers who go to the supermarket can become members by indicating their email, name, address and telephone number (optional). A membership code is assigned to each customer who registers in the system. The advantages of being a member include accumulating 5% of each purchase (of the total indicated on the ticket). In addition, from time to time, coupons that include discounts on certain products are generated. The same coupon can be generated for several members. Another advantage of being a member is that they can write opinions about the supermarket. In addition to the opinion, they can also assess the services by means of a score between 0 and 10. The date and time of the opinion must also be stored.

Discounts on certain products are available every week. These discounts establish the same percentage for all affected products. Discounts will have a validity period defined by a start date and an end date within each week.

The tickets issued by the cashiers must contain the following information: the date and time of issuance, the name of the cashier, a ticket identifier, the amount accumulated in the purchase (5% of the total), the list of products included and the total price to be paid. Products are identified by a barcode. If several products of the same type are purchased, the amount must also be indicated on the ticket. In addition, the products have a price with VAT, a price without VAT and a certain stock that is modified based on purchases and product returns. Members may use the total amount accumulated to pay the ticket price.

These are the minimum requirements that the database must have to design and implement but you may consider further requirements. Please state those clearly in your report.

Submission

A PDF document must be uploaded to Blackboard before the deadline with the following:
1. Data dictionary
2. The extended Entity-Relationship diagram
3. All other information that cannot be captured in the diagram.