

Assignment Brief

Introduction

This assignment contains THREE (3) parts: design, data and queries, and an assessment. All parts of the assessment relate to the following:

1. OM Luxury House Retail Store.
2. A CSV data set for data visualization.

Background and requirements

OM Luxury House is a retail store located at Kumaripati, Patan that distributes a variety of Cultural Wears. The Client, Grishma Sharma, is an **OM Luxury House** owner who is struggling to manage inventory and handle a multitude of information in the present non-information technology-based system (paper-based system).

The store has a healthy customer base and has decided to inform customers based on the occurrences and volume of purchase made by them. They are unable to reward these customers due to the trouble of not making use of electronic information systems. These include difficulty to analyze data, limited accessibility, wearing and tearing of the day books and time-consuming nature of paper-based information system.

This information system must have, as per the owner's requirement, a point for sales software to manage their transactions and inventory. This is because they have difficulty tracking sales, increased carrying costs and limited insights into sales trends such as most selling product variety and information that could enable data-driven decision making.

The different membership tiers are- Platinum, Gold, and Silver. In the existing systems, the shift-changing salesperson has difficulties recalling the instances and occurrences of visits of their customers. Each tier has its benefits such as discounts, early stock clearance access and better return policies.

Customers who have bought Rs. 100,000 or more in 5 weeks are categorized as Platinum while customers who have bought Rs.50000 or more in the same period belong to the gold tier. Similarly, customers who have bought 20000 or more in the period are classified as Silver-tier.

Platinum customers who have made a purchase of 100000 are entitled to a 15% discount and 15 days (about 2 weeks) exchange period. They also get the earliest access to stock clearance. In addition to this they offer free delivery to their doors. Gold-tier customers who have made a purchase of 50000 are entitled to a 10% discount and enjoy a 7-day exchange period. They also get access to stock clearance a week after platinum customers. And bronze customers who made a purchase of 20000 get a discount of 5%.

Furthermore, the system should provide a real-time inventory management capability that allows them to track product availability, monitor stock levels and generate alerts as per the requirements of the owner.

To achieve the desired goal, OM Luxury wants to put in place a database system. Please note: The data shown in the assignment is not necessarily normalized and it is the candidate's task to organize the data in the most optimal way possible. For example, the records shown above will not necessarily map directly to database tables; there may be repeating data; not all data is atomic, and it may be that not all unique identifiers are present. The candidate is expected to use these tables as a starting point for their own normalization and optimization of the data. Assumptions may be made and must be made explicit.

Example

Table 1: Sales

Date	Item	Quantity	Price per unit	Total sales	Salesperson
2022-03-21	Sari	10	15000	150000	Ambika Lamichhane
2022-03-22	Kurta	5	4000	20000	Aashma Regmi
2022-03-23	Lehenga Choli	8	20000	160000	Sarah Ghimire
2022-03-24	Sherwani	3	4500	13500	Ambika Lamichhane
2022-03-25	Anarkali	6	12000	72000	Subhadra Thapa
2022-03-26	Salwar Kameez	4	4000	16000	Sara Ghimire
2022-03-27	Ghagra Choli	7	21000	147000	Subhadra Thapa
2022-03-28	Dupatta	12	6000	72000	Pooja Manandhar
2022-03-29	Indo-Western gown	2	7000	14000	Subhadra Thapa

Table 2: Customer Details

First Name	Last Name	Email	Phone Number	Address	City	Postal Code
Ram	Sharma	ram.sharma@gmail.com	9841234567	Tinkune, Kathmandu	Lalitpur	44600
Sita	Shrestha	sita.shrestha@gmail.com	9809876543	Pulchowk, Lalitpur	Lalitpur	44700
Hari	Maharjan	hari.maharjan@gmail.com	9867543210	Gaushala, Kathmandu	Kathmandu	44600
Gita	Joshi	gita.joshi@gmail.com	9845678901	Chabahil, Kathmandu	Kathmandu	44600
Raju	Thapa	raju.thapa@gmail.com	9812345678	Thamel, Kathmandu	Kathmandu	44600

Table 3: Membership Tiers and Perks

Name	Tier	Perks
Ram Gurung	Platinum	Free shipping, 15% off all purchases, first access to new products, exclusive discounts, gift wrapping, personal shopping service exclusive invitation to events
Sita Tamang	Gold	10% off all purchases, access to new products after Platinum
Hari Sharma	Silver	5% off all purchases
Raju Karki	Non-Member	No benefits

Table 4: Delivery Information

Customer Name	Delivery Address	Contact Number	Delivery Date	Delivery Time
Amit Khanal	Butwal-11, Nepal	9812345678	2023-03-24	10:00 AM
Rita Dhakal	Butwal-12, Nepal	9841234567	2023-03-25	2:00 PM
Simran KC	Butwal-13, Nepal	9809876543	2023-03-26	4:00 PM

Table 5: Products

ProductID	ProductName	Description	Price	SupplierID
001	Dhaka Saree	A handloom saree made in Dhaka, Bangladesh	5000.00	S001
002	Dhaka Panjabi	A handloom panjabi made in Dhaka, Bangladesh	2500.00	S001
003	Kurta Suruwal	A traditional Nepali dress for men	3000.00	S002
004	Dhaka Silk Saree	A handloom silk saree made in Dhaka, Bangladesh	8000.00	S001
005	Dhaka Silk Panjabi	A handloom silk panjabi made in Dhaka, Bangladesh	4500.00	S001
006	Sherwani	A traditional Indian dress for men	10000.00	S003

Table 6: Suppliers

SupplierID	Supplier Address	Contact Number
S001	Kathmandu, Nepal	9860123456
S001	Lalitpur, Nepal	9841234567
S002	Bhaktapur, Nepal	9812345678

Table 7: Category Table

Category ID	Category Name
001	Topi
002	Clothing

Table 8: Brands

Brand ID	Brand Name
001	ABC
002	PQR
003	XYZ

Table 9: Purchase Orders

PO Number	Supplier ID	Product ID	Quantity	Cost Price	Order Date
001	001	001	10	100	2023-03-01
002	002	002	5	500	2023-03-15
003	003	003	8	1000	2023-03-20