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Business Overview

About The Company

Sephora is a leading global beauty retailer founded in France in 1969. The company is known for offering a diverse range of cosmetics, skincare, haircare, and fragrance products from hundreds of brands across thousands of stores (Schwanke, 2023). Sephora revolutionized the retail experience by allowing customers to test products in-store before purchasing, fostering a unique customer-focused environment (Schwanke, 2023). With a strong online presence and innovative digital services, Sephora's e-commerce platform continues to grow, focusing on personalization and improving customer experience. To maintain its competitive edge, a reliable database management system that integrates customer management, order processing, and inventory tracking will ensure the company has seamless coordination across multiple departments.

Mission Statement

The purpose of Sephora's online database system is to ensure accurate and up-to-date information, offering a comprehensive data management solution that facilitates detailed analysis and informed decision-making in areas such as customer management, order processing, employee supervision, and product inventory.

Mission Objectives

- **Customer Management**
  - To maintain and update customer data, including memberships, orders, payment methods, product reviews, and preferences.
  - To manage customer service requests, ensure that each service instance is accurately recorded and assigned.
- **Order and Shipment Management**
  - To manage order processing, ensuring that each order is associated with a single invoice and shipment.
  - To handle shipment data, ensuring shipments are linked to respective orders and deliveries.
- **Employee and Department Management**
  - To maintain employee records, including job titles, department assignments, and supervision responsibilities.
  - To manage departmental data within branches, ensuring proper assignment of employees and departments.
- **Product and Inventory Management**
  - To manage product data, including categories, reviews, promotions, and inventory levels.

- ○ To ensure accurate tracking of product orders and returns, as well as the application of promotions.
  - **Payment and Invoice Management**
    - ○ To manage payment methods and their association with invoices.
    - ○ To ensure accurate linkage between orders, invoices, and payment methods.
  - **Service and Delivery Management**
    - ○ To manage service schedules and ensure each service instance is completed by a designated employee.
    - ○ To oversee delivery operations, ensuring accurate linkage between shipments and deliveries.

Business Scenario

To achieve its mission, the operations of Sephora's e-commerce platform rely on a robust database management system that handles various aspects of its business processes, most importantly customer and employee management, order processing, as well as product and inventory management. To maintain its competitive edge, the company needs a reliable database management system that integrates all these factors with ease. For example, when a customer places an order, the system must check inventory availability, update stock levels in real-time, process the payment, and trigger fulfillment by notifying the employees.

Business Process

In terms of customer management, Sephora ensures that each customer holds a membership at a time when creating an account. Every newly created account starts with a beginner membership status "Insider", which can later be advanced based on the customer's minimum spend per year. Memberships offer exclusive benefits such as discount offers, gifts, and early access to new/discounted products. Customers are empowered to place multiple orders through a streamlined order management system, offering them flexibility and convenience. The system supports multiple payment methods, allowing customers to choose their preferred mode of payment per order. Additionally, customers can write product reviews, which provides valuable feedback and assists other customers with purchasing decisions.

In terms of order management at Sephora, it involves a detailed process where each order includes one or more order lines, specifying the products purchased as well as their quantity. Each order is linked to a unique invoice, covering all billing details for clarity and transparency. The system is also designed to handle refunds, accommodating returns and addressing product issues efficiently. To ensure cohesive delivery, each order is included in a single shipment, simplifying the logistics and enhancing the customer experience.

In terms of product and inventory management systems, Sephora is designed to maintain an organized and efficient stock of products. Products are categorized into specific categories,

making it easier for customers to find what they are looking for. Each branch manages several inventories to ensure stock availability and optimize organization.

In terms of shipping and delivery management, Sephora is optimized for efficiency and customer satisfaction. Each order is included in one shipment to ensure all items are delivered together. Multiple shipments can be consolidated into a single delivery to optimize delivery routes and schedules. Similarly, delivery personnel can manage multiple deliveries.

Employee and department management is another critical aspect of Sephora's operations. The company maintains comprehensive records of its employees, including their job titles and departmental affiliations. An employee can supervise multiple employees, to foster a structured hierarchy and establish management lines. Branches operate with multiple departments and work with multiple suppliers (brands) to maintain a diverse product range, ensuring that customer demand is met consistently.

Sephora's database management system supports these business processes through various features and functionalities. The customer management system tracks memberships, order history, payment methods, and product reviews. The order management system logs all orders, generates invoices, processes refunds, and coordinates shipments. The product and inventory management system organizes products into categories, tracks inventory levels, and aggregates product reviews. The shipping and delivery system monitors shipments and optimizes delivery management. Finally, the employee and department management system maintains employee records, tracks relationships, organizes departments, and oversees branch operations and supplier relationships. With such a comprehensive database management system, Sephora ensures efficient handling of its extensive operations, providing a seamless shopping experience for its customers while maintaining high operational standards.

Goals of Database System

The database system empowers decision-making at Sephora, enhancing operational efficiency and strategic decision-making. Employees will benefit from real-time access to their assigned deliveries and services, as well as tools to manage inventory. The system will enable the company to analyze sales performance and identify both top and bottom-performing products by tracking sales quantities. Additionally, the system will offer valuable insights into customer behaviour and preferences, helping the market department expand and discover new segments. By identifying brands with the most extensive product ranges, the company can optimize its inventory and strengthen partnerships. The system can also monitor the effectiveness of marketing efforts over time through the use of active promotions as well as general key performance indicators such as customer retention rate and more. Overall, this system will be instrumental in improving employee productivity, enhancing customer satisfaction, optimizing product offerings, and driving business growth.

Business Features & Functionalities (Users & Mapping)

When creating Sephoras online database we considered the following users in mind.

Main Users

- **Business Analysts:** Using the database to generate reports and identify trends in sales and customer behaviour.
- **Supply Chain Analysts:** Use the database to monitor inventory levels and product performance.
- **Marketing Analysts:** Using the database to evaluate the effectiveness of marketing campaigns and customer engagement.
- **In-store Employees:** Access the database to assist customers with product availability, check stock levels, and manage customer orders. They can also review shipment, delivery, and service assignments.
- **Customer Service Representatives:** Use the database to address customer inquiries, track orders, and resolve any issues regarding product delivery or returns.

Website Samples

The screenshots below highlight the functionalities considered and included in the system.

Category
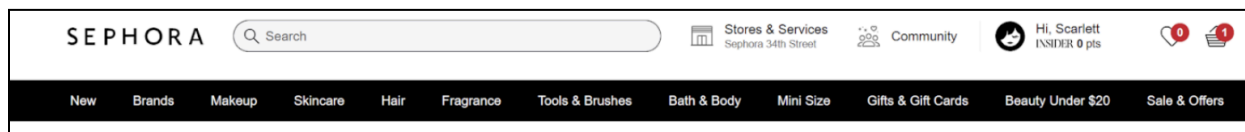
Sub-Category (example)

Service Reservations

Find a Sephora

Makeup Services
One-on-one makeup application or beauty lesson

Skincare Services
Hydrating and exfoliating Perk treatments by Hydrafacial™

Waxing Services
Expert grooming for brows, upper lip, or chin

Events
Learn about brands, try new products, and more at our in-store events

Customer Preference *(found in user profile)*

Beauty Preferences
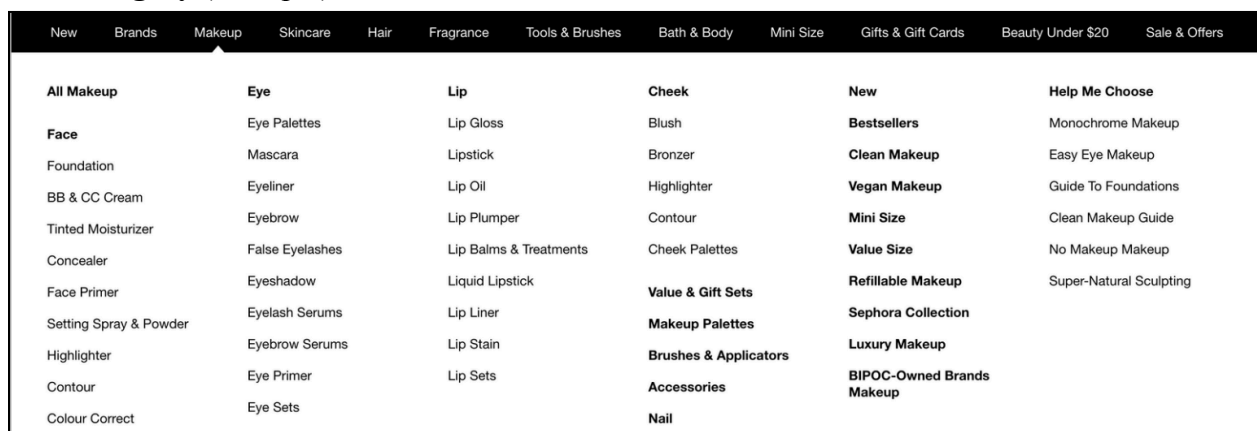Tell us your beauty traits and shopping preferences to unlock personalized recommendations.

Complete to Unlock Your Personalized Recommendations

Skin Type   Select one:
Combination   Dry   Normal   Oily

Save and Continue

Skin Concerns

Skin Tone

Color IQ ⓘ

Ingredient Preferences

Fragrance Preferences

Hair Type

Hair Texture

Brands

Brands A-Z

Favorite Brands ⌄

♡ Save your Favorite Brands to your Beauty Preferences for a more personalized shopping experience.

All Brands

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

A

♡ AAVRANI	♡ AERIN	♡ ALTERNA Haircare	♡ Aquis	♡ Augustinus Bader
♡ ABBOTT	♡ Algenist	♡ Ami Colé	♡ Ariana Grande NEW	♡ Azzaro
♡ Act+Acre	♡ ALO	♡ amika	♡ Armani Beauty	
♡ adwoa beauty	♡ Alpyn Beauty	♡ Anastasia Beverly Hills	♡ Artist Couture	

B

♡ BaBylissPRO	♡ Beautyblender	♡ Biossance	♡ Boy Smells	♡ Bumble and bumble
♡ bareMinerals	♡ belif	♡ Blinc	♡ BREAD BEAUTY SUPPLY	♡ BURBERRY
♡ BASMA	♡ Benefit Cosmetics	♡ Bobbi Brown	♡ Briogeo	♡ Buxom
♡ BeautyBio	♡ Bio Ionic	♡ BondiBoost	♡ BROWN GIRL Jane	♡ By Rosie Jane

C

| ♡ caliray | ♡ Ceremonia | ♡ ciele | ♡ COLOR WOW | ♡ Curlsmith |
| ♡ CANOPY | ♡ CHANEL | ♡ Cinema Secrets | ♡ Commodity | |

Business Rules

The following lists reflect business rules the new online database must consider:

Customer Management
1. A customer can only hold one membership at a time.
2. A customer can place many orders.
3. A customer can have many payment methods.
4. A customer can have many product reviews.
5. A customer can have a single preference list
6. A customer can request multiple services.
7. An instance of service can be done to one customer at a time.

Shipping and Delivery Management:
1. Each order can only have one shipment.
2. Multiple shipments could be delivered in one delivery.
3. One delivery guy can have multiple deliveries.

Employee:
1. An employee supervises multiple employees.
2. An employee can have a single job title, but a job title can have multiple employees.
3. An employee belongs to a single department.
4. A department can have multiple employees.
5. A branch has multiple departments.
6. An employee can be assigned to zero or many service dates.
7. One employee can complete a service date at a time.

Product:
1. A product can be in many order lines.
2. A product has multiple product reviews.
3. A product belongs to a single category.
4. A category can have many products.
5. A product can have zero or many shades.
6. A promotion can be applied to none or many products.
7. A product can have a single promotion at a time.
8. An inventory can store many products.
9. A brand can sell multiple products.

Refund Management:
1. An order can have 0-to-many returns.

Order Management:
1. An order generates one invoice at a time.
2. An order involves one or many order lines.
3. An order can generate multiple refunds.
4. An order is included in one shipment.

Payment and Invoice management:
1. A payment method can be associated with multiple invoices.
2. An invoice can only be associated with a single order.
3. An invoice can only be paid with a single payment method.
4. An invoice is linked to one order.

Employee and Department Management:
1. An employee can supervise multiple employees.
2. An employee can only have one job title.
3. A job title can have many employees.
4. A department can have multiple employees.
5. An employee can only be assigned to one department.
6. An instance of a department can belong to a single branch.
7. A branch can have several departments.

Brand Management:
1. A brand can carry multiple products.
2. A branch can work with multiple brands.

Service Management:
1. A service can have one service schedule at a time.

Entity Relationship Diagram (ERD)

Below we present the entity relationship diagram of this online database:
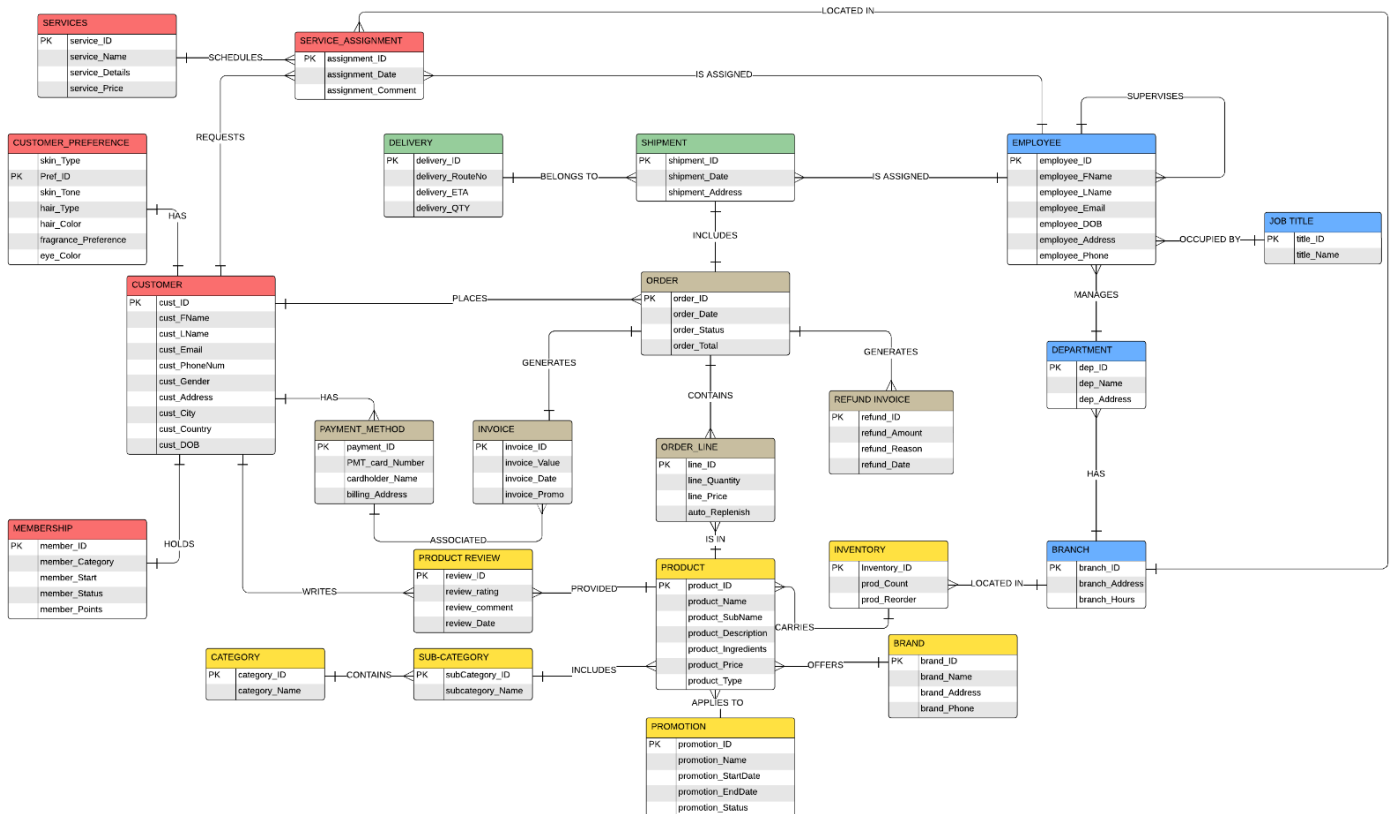
Relational Schema/Logical Model

The following relational schema has been mapped to the ERD.

Customer Management
CUSTOMER (cust_ID (PK), cust_FName, cust_LName, cust_Email, cust_PhoneNum, cust_Gender, cust_Address, cust_City, cust_Country, cust_DOB)
PK: cust_ID

CUSTOMER_PREFERENCE(cust_ID, skin_Type, skin_Tone, hair_Type, hair_Color, fragrance_Preference, eye_Color)
PK:cust_ID
FK: cust_ID references CUSTOMER(cust_ID)

MEMBERSHIP(member_ID, cust_ID, member_Category, member_Start, member_Status, member_Points)
PK: member_ID
FK: cust_ID references CUSTOMER(cust_ID)

SERVICE_ASSIGNMENT(assignment_ID, assignment_Date, assignment_Comment, branch_ID, cust_ID, service_ID, employee_id)
PK: assignment_ID
FK: branch_ID references BRANCH(branch_ID)
FK: cust_ID references CUSTOMER(cust_ID)
FK: service_ID references SERVICES(service_ID)
FK: employee_ID references employee(employee_ID)

SERVICES(service_ID, service_Name, service_Details, service_Price)
PK: service_ID

Order Management
ORDER(order_ID, order_Date, order_Status, order_Total, cust_ID, shipment_ID, invoice_ID)
PK: order_ID
FK: cust_ID references CUSTOMER(cust_ID)
FK: shipment_ID references SHIPMENT(shipment_ID)
FK: invoice_ID references INVOICE(invoice_ID)

REFUND_INVOICE(refund_ID, refund_Amount, refund_Reason, refund_Date, order_ID)
PK: refund_ID
FK: order_ID references ORDER(order_ID)

INVOICE(invoice_ID, invoice_Value, invoice_Date, invoice_Promo, order_ID, payment_ID)
PK: invoice_ID
FK: order_ID references ORDER(order_ID)
FK: payment_ID references PAYMENT_METHOD(payment_ID)

PAYMENT_METHOD(payment_ID, PMT_card_Number, cardholder_Name, billing_Address, cust_ID)
PK: payment_ID
FK: cust_ID references CUSTOMER(cust_ID)

ORDER_LINE(line_ID, line_Quantity, line_Price, auto_Replenish, order_ID, product_ID)
PK: line_ID
FK: order_ID references ORDER(order_ID)
FK: product_ID references PRODUCT(product_ID)

Employee Management

EMPLOYEE(employee_ID, employee_FName, employee_LName, employee_Email, employee_DOB, employee_Address, employee_Phone, manager_ID, dep_ID, title_ID)
PK: employee_ID
FK: manager_ID references EMPLOYEE(employee_ID)
FK: dep_ID references DEPARTMENT(dep_ID)
FK: title_ID references Job Title(title_ID)

JOB_TITLE(title_ID, title_Name)
PK: title_ID

DEPARTMENT(dep_ID, dep_Name, dep_Address, branch_ID)
PK: dep_ID
FK: branch_ID references BRANCH(branch_ID)

BRANCH(branch_ID, branch_Address, branch_Hours)
PK: branch_ID

Product Management

PRODUCT(Product_ID, Product_Name, Product_SubName, Product_Description, Product_Ingredients, Product_Price, Product_Type, Brand_ID, Sub_Category_ID, Brand_ID, Promotion_ID, Inventory_ID)
PK: Product_ID
FK: SubCategory_ID reference Sub-category(SubCategory_ID)

FK: Brand_ID reference Brand(brand_ID)
FK: Promotion_ID reference Promotion(Promotion_ID)
FK: Inventory_ID reference Inventory(Inventory_ID)

BRAND(brand_ID, brand_Address, brand_Phone)
PK: brand_ID

PROMOTION(promotion_ID, promotion_Name, promotion_StartDate, promotion_EndDate, promotion_Status)
PK: promotion_ID

SUB_CATEGORY (subcatgory_ID, subcategory_Name, Category_ID)
PK: subCategory_ID
FK: Category_ID reference Category(category_ID)

CATEGORY(category_ID, category_Name)
PK: category_ID

PRODUCT_REVIEW(review_ID, review_rating, review_comment, review_Date, cust_ID, product_ID)
PK: review_ID
FK: cust_ID reference customer(cust_ID)
FK: product_ID reference product(product_ID)

INVENTORY(prod_Count, prod_Reorder, branch_ID)
FK: branch_ID reference Brach(Brach_ID)

Shipment Management
SHIPMENT(shipment_ID, order_ID, employee_ID, shipment_Date, shipment_Address, delivery_ID)
 PK: shipment_ID
FK: order_ID references ORDER(order_ID)
FK: employee_ID references EMPLOYEE(employee_ID)
FK: delivery_ID references Delivery(delivery_id)

DELIVERY(delivery_ID, delivery_RouteNo, delivery_ETA, delivery_QTY)
PK: delivery_ID

Data Dictionary

Description of Entities

Entity Name	Description	Aliases	Occurrence
CUSTOMER	Contains information about customers, including personal details and contact information.	Client	Each customer can have one set of preferences, only one membership, and multiple orders. One customer can also have multiple payment methods, write multiple product reviews, and request multiple service assignments.
CUSTOMER_PREFEREN CE	Holds customer-specific preferences for skin type, hair type, and other personal preferences.	Client_Prefere nces	Each customer has one set of preferences.
MEMBERSHIP	Details of membership information for customers, including category, start date, status, and points.	Subscription	Each customer can hold one membership.
SERVICE_ASSIGNMENT	Records the assignment of services to customers, including date, comments, and references to branch, service, and employee.		Multiple service assignments are linked to one customer, one service, one branch and one employee.
SERVICES	Contains information about various services offered, including name, details, and price.	Offerings	One service can have multiple assignments.
ORDER	Details customer orders, including date, status, total, and references to shipment and invoice.	Purchase	Multiple orders are linked to one customer. Each order is associated with

			multiple order lines, multiple refund invoices if any and one invoice.
REFUND_INVOICE	Contains details about refunds issued, including the amount, reason, and the associated order.	Credit_Note	Multiple refund invoices can be linked to one order.
INVOICE	Details invoices issued to customers, including value, date, promotions, and payment method.	Receipt	Each invoice is linked to one order and multiple invoices could be related to one payment method.
PAYMENT_METHOD	Contains payment method details, including card information and billing address.	Payment_Opti on	Multiple payment methods can be linked to one customer.
ORDER_LINE	Records the details of items within an order, including quantity, price, and references to the product.	Order_details	Each order can have multiple order lines, each linked to one product.
EMPLOYEE	Contains employee information, including personal details, and contact information.	Staff_Member	Employees can manage multiple services and assignments. One supervisor can supervise multiple employees. Many employees can have the same job title and belong to one department.
JOB_TITLE	Details the job titles within the company, including title names.	Position	Many employees can have one job title.
DEPARTMENT	Contains information about different departments within the company, including	Division	Multiple departments can be linked to one branch and can have multiple employees.

	name, address, and branch association.		
BRANCH	Details information about the branches of the company, including address and hours.	Location	Each branch can have multiple departments, inventories and service assignments.
PRODUCT	Contains product details, including name, description, ingredients, price, and references to categories, brands, promotions, and inventory.	Offerings	Each product can have multiple reviews, and be in multiple orders. Multiple products can belong to multiple sub-categories and brands, stocked in one inventory and apply the same promotion.
BRAND	Details information about brands, including address and phone.	Supplier	Many products can be associated with one brand.
PROMOTION	Contains details about promotional offers, including name, start and end dates, and status.	Campaign	Multiple products can be associated with one or more promotions.
SUB-CATEGORY	Details sub-categories within the product catalogue, including name and parent category.	Sub-Group	Multiple products can belong to one sub-category.
CATEGORY	Contains information about product categories.	Group	Multiple sub-categories are linked to one category.
PRODUCT REVIEW	Records reviews for products, including ratings, comments, and references to the customer and product.	Product comments	Each product can have multiple reviews from multiple customers.
INVENTORY	Contains information about product inventory, including count, reorder levels, and branch association.	Stock	Multiple product inventories are located in one branch. One

			inventory can carry multiple products.
SHIPMENT	Details information about shipments, including date, address, and delivery references.	Parcel	Each shipment is linked to one order and many shipments can belong to one delivery.
DELIVERY	Contains delivery information, including route number, estimated time of arrival, and quantity delivered.	Distribution	Each delivery can have multiple shipments.

Description of Attributes

Entity Name	Attributes	Description	Data Type	Nulls	Multi-valued	Derived	Default
BRANCH	branch_ID	Unique ID for each branch	Integer	No	No	No	None
	branch_Address	Address of the branch	255 Variable Chars	Yes	No	No	None
	branch_Hours	Operating hours of the branch	50 Variable Chars	Yes	No	No	None
DEPARTME NT	dep_ID	Unique ID for each department	Integer	No	No	No	None
	dep_Name	Name of the department	255 Variable Chars	Yes	No	No	None
	dep_Address	Address of the department	255 Variable Chars	Yes	No	No	None
	branch_ID	Branch ID where the department is located	Integer	Yes	No	No	None
EMPLOYE E	employee_ID	Unique ID for each employee	Integer	No	No	No	None
	employee_FNa me	First name of the employee	255 Variable Chars	Yes	No	No	None
	employee_LNa me	Last name of the employee	255 Variable Chars	Yes	No	No	None

	employee_Email	Email address of the employee	255 Variable Chars	Yes	No	No	None
	employee_DOB	Date of birth of the employee	DATE	Yes	No	No	None
	employee_Address	Address of the employee	255 Variable Chars	Yes	No	No	None
	employee_Phone	Phone number of the employee	20 Variable Chars	Yes	No	No	None
	dep_ID	Department to which the employee belongs	Integer	Yes	No	No	None
	title_ID	Position to which the employee have in the company	Integer	Yes	No	No	None
	Manager_ID	Employee ID who is a manager	Integer	Yes	No	No	None
JOB_TITLE	title_ID	Unique ID for each job title	Integer	No	No	No	None
	title_Name	Name of the job title	255 Variable Chars	Yes	No	No	None
	employee_ID	Employee associated with this job title	Integer	Yes	No	No	None

CUSTOMER	cust_ID	Unique ID for each customer	Integer	No	No	No	None
	cust_FName	First name of the customer	255 Variable Chars	No	No	No	None
	cust_LName	Last name of the customer	255 Variable Chars	No	No	No	None
	cust_Email	Email address of the customer	255 Variable Chars	No	No	No	None
	cust_PhoneNum	Phone number of the customer	20 Variable Chars	Yes	No	No	None
	cust_Gender	Gender of the customer	10 Variable Chars	Yes	No	No	None
	cust_Address	Address of the customer	255 Variable Chars	Yes	No	No	None
	cust_City	City of the customer	100 Variable Chars	Yes	No	No	None
	cust_Country	Country of the customer	100 Variable Chars	Yes	No	No	None
	cust_DOB	Date of birth of the customer	DATE	Yes	No	No	None
CUSTOMER_PREFERENCE	pref_ID	Unique ID for each customer preference	Integer	No	No	No	None

	skin_Type	Skin type of the customer	50 Variable Chars	Yes	No	No	None
	skin_Tone	Skin tone of the customer	50 Variable Chars	Yes	No	No	None
	hair_Type	Hair type of the customer	50 Variable Chars	Yes	No	No	None
	hair_Color	Hair color of the customer	50 Variable Chars	Yes	No	No	None
	fragrance_Preference	Fragrance preference of the customer	50 Variable Chars	Yes	No	No	None
	eye_Color	Eye color of the customer	50 Variable Chars	Yes	No	No	None
	cust_ID	Customer associated with these preferences	Integer	Yes	No	No	None
MEMBERS-HIP	member_ID	Unique ID for each membership	INT	No	No	No	None
	member_Category	Category of the membership	100 Variable Chars	Yes	No	No	None
	member_Start	Start date of the membership	DATE	Yes	No	No	None
	member_Status	Status of the membership	50 Variable Chars	Yes	No	No	None

	member_Points	Points accumulated in the membership	Integer	Yes	No	No	None
	cust_ID	Customer associated with this membership	Integer	Yes	No	No	None
SERVICES	service_ID	Unique ID for each service	INT	No	No	No	None
	service_Name	Name of the service	50 Variable Chars	No	No	No	None
	service_Details	Details of the service	TEXT	Yes	No	No	None
	service_Price	Price of the service	DECIMAL(10, 2)	Yes	No	No	None
SERVICE_ ASSIGNME NT	assignment_ID	Unique ID for each service assignment	Integer	No	No	No	None
	assignment_Dat e	Date of the service assignment	DATE	Yes	No	No	None
	assignment_Co mment	Comments on the service assignment	TEXT	Yes	No	No	None
	branch_ID	Branch where the service was assigned	Integer	Yes	No	No	None
	cust_ID	Customer who received the service	Integer	Yes	No	No	None

	service_ID	Service assigned	Integer	Yes	No	No	None
	Employee_ID	Service assigned to employee	Integer	Yes	No	No	None
BRAND	brand_ID	Unique ID for each brand	Integer	No	No	No	None
	brand_Name	Name of the brand	40 Variable Chars	Yes	No	No	None
	brand_Address	Address of the brand	255 Variable Chars	Yes	No	No	None
	brand_Phone	Phone number of the brand	20 Variable Chars	Yes	No	No	None
CATEGORY	category_ID	Unique ID for each category	Integer	No	No	No	None
	category_Name	Name of the category	255 Variable Chars	Yes	No	No	None
SUB_CATE GORY	subcategory_ID	Unique ID for each sub-category	Integer	No	No	No	None
	subcategory_N ame	Name of the sub-category	255 Variable Chars	Yes	No	No	None
	category_ID	Category to which the sub-category belongs	Integer	Yes	No	No	None
PROMOTI ON	promotion_ID	Unique ID for each promotion	Integer	No	No	No	None

	promotion_Name	Name of the promotion	255 Variable Chars	Yes	No	No	None
	promotion_Type	Type of the promotion	255 Variable Chars	Yes	No	No	None
	start_Date	Start date of the promotion	DATE	Yes	No	No	None
	end_Date	End date of the promotion	DATE	Yes	No	No	None
	promotion_Status	Status of the promotion	TEXT	Yes	No	No	None
PRODUCT	product_ID	Unique ID for each product	Integer	No	No	No	None
	product_Name	Name of the product	255 Variable Chars	Yes	No	No	None
	product_SubName	Subname of the product	255 Variable Chars	Yes	No	No	None
	product_Desciption	Description of the product	TEXT	Yes	No	No	None
	product_Price	Price of the product	DECIMAL(10, 2)	Yes	No	No	None
	category_ID	Reference to the category	Integer	Yes	No	No	None
	subcategory_ID	Reference to the subcategory	Integer	Yes	No	No	None

	brand_ID	Reference to the brand	Integer	Yes	No	No	None
	promotion_ID	Reference to the promotion	Integer	Yes	No	No	None
	Inventory_ID	Reference to the inventory	Integer	Yes	No	No	None
PRODUCT_ REVIEW	review_ID	Unique ID for each review	Integer	No	No	No	None
	review_rating	Rating given in the review	Integer	Yes	No	No	None
	review_comme nt	Comment provided in the review	TEXT	Yes	No	No	None
	review_Date	Date of the review	DATE	Yes	No	No	None
	product_ID	Reference to the product	Integer	Yes	No	No	None
	cust_ID	Reference to the customer	Integer	Yes	No	No	None
INVENTOR Y	inventory_ID	Unique ID for each inventory record	Integer	No	No	No	None
	prod_Count	Count of the product in inventory	Integer	Yes	No	No	None
	prod_Reorder	Reorder level for the product	Integer	Yes	No	No	None

	branch_ID	Reference to the branch	Integer	Yes	No	No	None
	product_ID	Reference to the product	Integer	Yes	No	No	None
ORDERS	order_ID	Unique ID for each order	Integer	No	No	No	None
	order_Date	Date of the order	DATE	No	No	No	None
	order_Status	Status of the order	50 Variable Charts	Yes	No	No	None
	order_Total	Total amount of the order	DECIMAL(10, 2)	Yes	No	No	None
	cust_ID	Reference to the customer	INT	Yes	No	No	None
	shipment_ID	Reference to the shipment	INT	Yes	No	No	None
	invoice_ID	Reference to the invoice	INT	Yes	No	No	None
ORDER_LINE	line_ID	Unique ID for each order line	Integer	No	No	No	None
	line_Quantity	Quantity of the product ordered	Integer	Yes	No	No	None
	line_Price	Price per unit of the product	DECIMAL(10, 2)	Yes	No	No	None

	auto_Replenish	Whether auto-replenish is enabled	BOOLEAN	Yes	No	No	None
	order_ID	Reference to the order	Integer	Yes	No	No	None
	product_ID	Reference to the product	Integer	Yes	No	No	None
PAYMENT_ METHOD	payment_ID	Unique ID for each payment method	Integer	No	No	No	None
	payment_Date	Date of the payment	DATE	Yes	No	No	None
	cust_ID	Reference to the customer	Integer	Yes	No	No	None
INVOICE	invoice_ID	Unique ID for each invoice	Integer	No	No	No	None
	invoice_Value	Total value of the invoice	DECIMAL(10, 2)	Yes	No	No	None
	invoice_Date	Date of the invoice	DATE	No	No	No	None
	invoice_Promo	Promotion applied to the invoice	100 Variable Charts	Yes	No	No	None
	order_ID	Reference to the order	Integer	Yes	No	No	None
	payment_ID	Reference to the payment method	Integer	Yes	No	No	None

REFUND_I NVOICE	refund_ID	Unique ID for each refund invoice	Integer	No	No	No	None
	refund_Amount	Amount refunded	DECIMAL(10, 2)	Yes	No	No	None
	refund_Reason	Reason for the refund	TEXT	Yes	No	No	None
	refund_Date	Date of the refund	DATE	Yes	No	No	None
	order_ID	Reference to the order	INT	Yes	No	No	None
SHIPMENT	shipment_ID	Unique ID for each shipment	Integer	No	No	No	None
	order_ID	Reference to the order	Integer	Yes	No	No	None
	employee_ID	Reference to the employee	Integer	Yes	No	No	None
	shipment_Date	Date of the shipment	DATE	Yes	No	No	None
	shipment_Addr ess	Address of the shipment	255 Variable Charts	Yes	No	No	None
	Delivery ID	References to Delivery	Integer	Yes	No	No	None
DELIVERY	delivery_ID	Unique ID for each delivery	Integer	No	No	No	None

	shipment_ID	Reference to the shipment	Integer	Yes	No	No	None
	delivery_Route No	Route number for the delivery	100 Variable Charts	Yes	No	No	None
	delivery_ETA	Estimated time of arrival	DATE	Yes	No	No	None
	delivery_QTY	Quantity of items delivered	Integer	Yes	No	No	None

Physical Model

Please note that the physical model of this database system has been uploaded in a separate Txt file, named INSY-661-Project-Code.txt

Queries & KPI

Please note that the queries applied to this database system have been uploaded in a separate Txt file, named INSY-661-Project-Code.txt

References:

Schwanke, C. (2023, May 3). What is the history of Sephora?. LoveToKnow. https://www.lovetoknow.com/life/style/what-is-history-sephora