



The Faculty of Information and Communication Technology

Mahidol University

Project Phase I: M2 Submission

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ITCS216 Fundamentals of Database Systems

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Introduction to business domain: Cosmetic

Cosmetics brand, EVEANDBOY, was founded in Maha Sarakham in 2005 [1] [2]. Based in Thailand, EVEANDBOY operates numerous branches across the country [1].

The brand is well-known for its extensive range of cosmetics, skincare, and personal care products, which include makeup, skincare, haircare, fragrance, and beauty tools [3]. EVEANDBOY carries popular cosmetic brands such as LOLANE, ANESSA, GARNIER, BOBBI BROWN, LA ROCHE-POSAY, and BeNice, in addition to their own products [3]. Customers can shop at EVEANDBOY's physical stores or visit their online platform, where they can browse products by category and take advantage of the online delivery service [3]. EVEANDBOY stands out in the cosmetic industry by providing their variety of products and plenty of exclusive discounts and coupons only for their customers [2].

Business process

1. Account Management

Explanation:

EVEANDBOY's account management system allows customers to create and log in to an account using their email or phone number, providing access to features like personal information management. Customers can also view their order history, track current orders, and check delivery status. Additionally, the account management system integrates with EVEANDBOY's loyalty program, enabling customers to earn and manage points from their purchases.

Data involve the process:	
Account	<u>Acc_ID</u> , <u>Acc_Nname</u> , <u>Acc_Fname</u> , <u>Acc_Lname</u> , <u>Acc_MobileNum</u> , <u>Acc_Email</u> , <u>Acc_Password</u> , <u>Acc_Gender</u> , <u>Acc_BirthDate</u>
Membership*weak	<u>Acc_ID</u> , <u>Mem_Point</u> , <u>Mem_Coin</u> , <u>Mem_CouponsList</u> , <u>Mem_CardName</u>

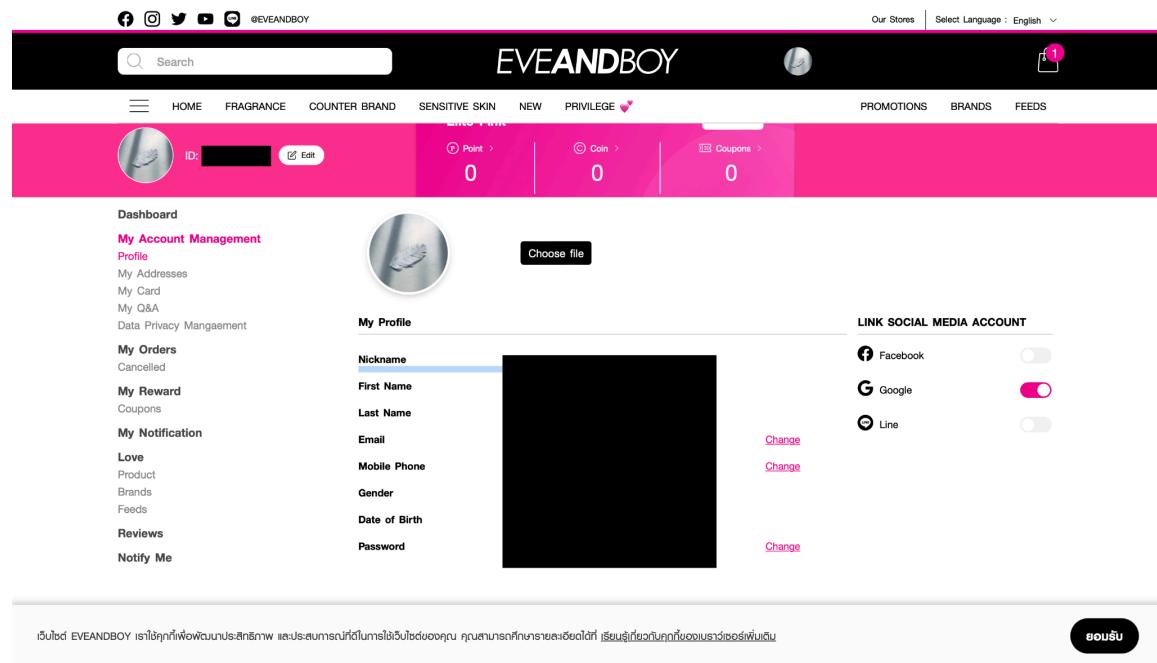


Figure 1 My account screen

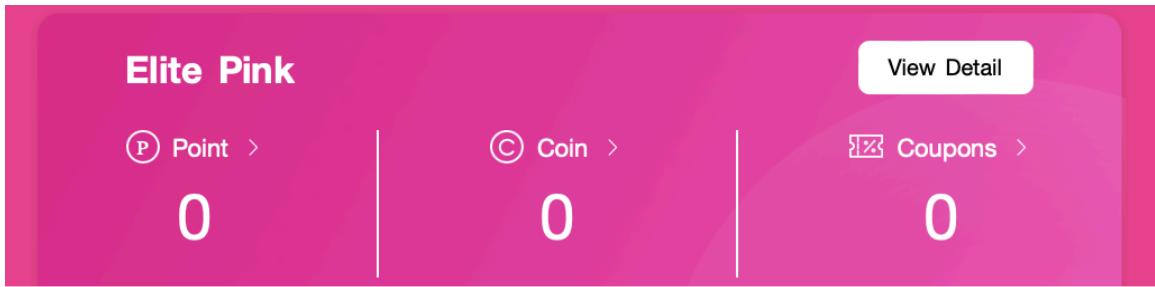


Figure 2 Membership screen

2. Product searching

Explanation:

Customers can easily find items using the search bar, which provides auto-suggestions and filters to refine results by price, brand or product type. Detailed product pages offer descriptions, ingredients, and customer reviews to help users make informed choices. This streamlined process ensures a quick and efficient shopping experience for beauty enthusiasts.

Data involve the process:	
Account	<u>Acc_ID</u> , Acc_Nname, Acc_Fname, Acc_Lname, Acc_MobileNum, Acc_Email, Acc_Password, Acc_Gender, Acc_BirthDate
ProductCategory	<u>PC_CategoryName</u> , PC_ProductType, PC_SubProductType
Brand	<u>Br_ID</u> , Br_Name, Br_FollowNum, Br_Logo, Br_RecommendList
BrandPromotion	<u>Promo_ID</u> , Promo_Offer, Promo_Condition, Promo_SDate, Promo_EDate
Product	<u>Serial_Num</u> , PD_Name, PD_Detail, PD_OriginalPrice, PD_DiscountedPrice, PD_HowToUse, PD_Reviews, PD_QnA, PD_Stock
SearchHistory	<u>Keyword</u>
FavoriteList	<u>Fav_ListNo</u> , Fav_ListName, Fav_ProductNum, Fav_ProductName, Fav_ProductDescription, Fav_ProductImg

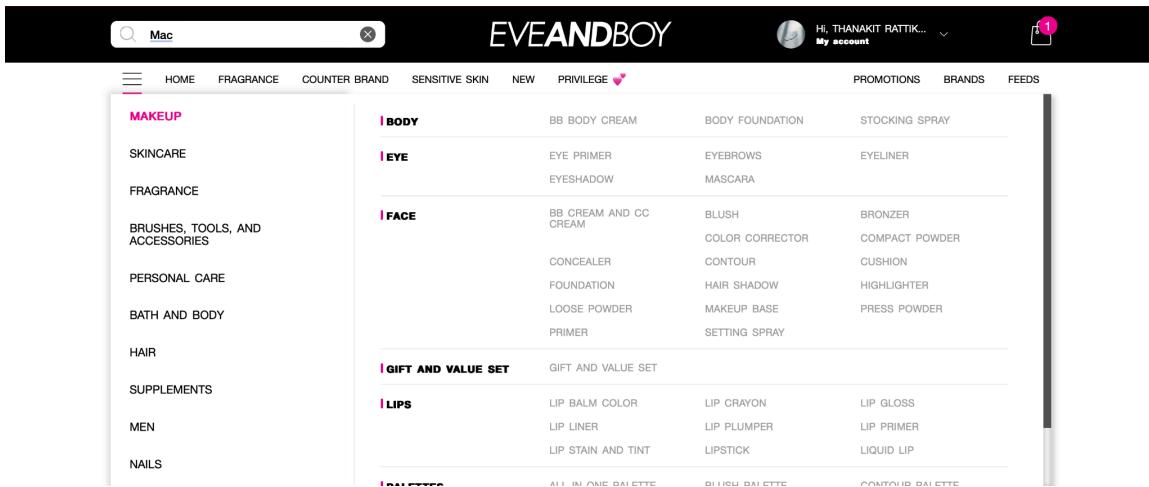


Figure 3 Product categories

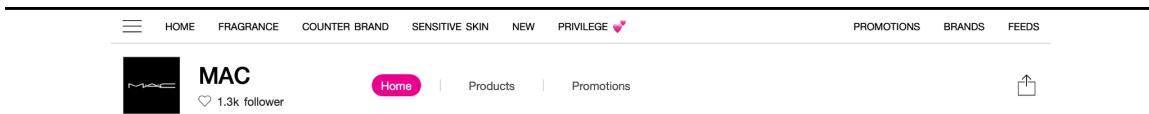


Figure 4 Brand page

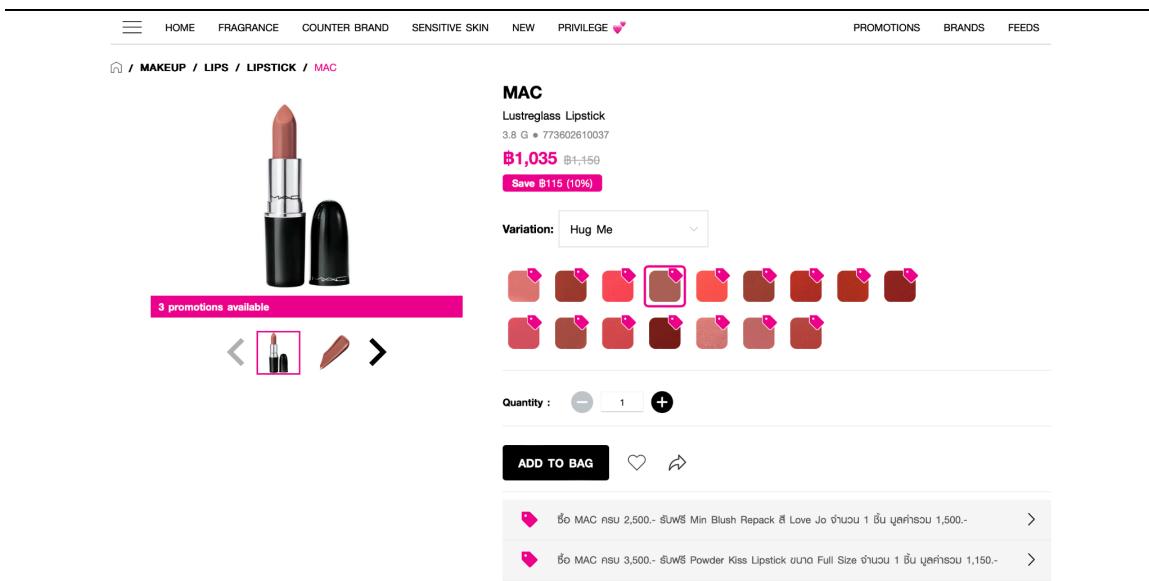


Figure 5 Product page

FAV [Rename](#)

[Add Item +](#) [Add all items to Bag](#) [Remove this list](#)

[Select all](#) [Copy Selected To](#) [Remove Selected](#) Selected : 0 item(s)



MILLE
Perfect Skin Serum Hyaluron Foundation SPF30 PA++
02 Glowing Natural • 8859141304582
\$69

Figure 6 Favorite list

[Product Detail](#) [How to Use](#) [Reviews \(1\)](#) [Q&A](#)

รายละเอียดเพิ่มเติมของสินค้า

MAC Lustreglass Lipstick #Hug Me ขนาด 3 g. สีปัดลิปที่ให้เนื้อสัมผัสบางเบาเป็นพิเศษ พร้อมส่วนผสมจากน้ำนมเนยธรรมชาติและบาล์มจากเมล็ดรำขัน ทำให้ลิปดูเด่นมากขึ้น พร้อมกันน้ำและกันน้ำ ให้ลิปมีสีที่สดใสและคงทน





Figure 7 Product detail

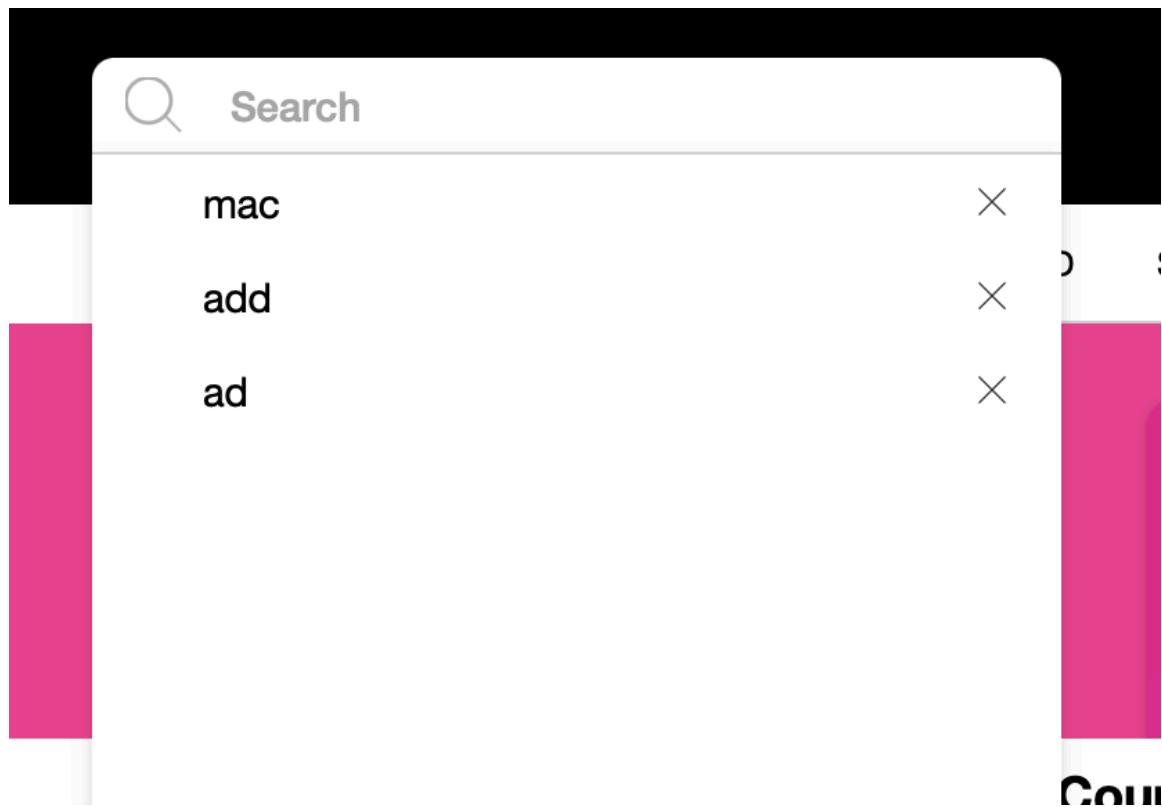


Figure 8 Search history

3. Advertisement

Explanation:

EVEANDBOY, a popular beauty store in Thailand, advertises its products through various methods. Their ads often focus on promoting new beauty items, special discounts, and exclusive offers by their content feed and VDO feed. They also feature collaborations with brands and influencers and provide beauty tips or tutorials. Additionally, EVEANDBOY highlights events and product launches to attract customers.

Data involve the process:	
Account	<u>Acc_ID</u> , Acc_Nname, Acc_Fname, Acc_Lname, Acc_MobileNum, Acc_Email, Acc_Password, Acc_Gender, Acc_BirthDate
Brand	<u>Br_ID</u> , Br_Name, Br_FollowNum, Br_Logo, Br_RecommendList
Product	<u>Serial_Num</u> , PD_Name, PD_Detail, PD_OriginalPrice, PD_DiscountedPrice, PD_HowToUse, PD_Reviews, PD_QnA, PD_Stock
Feed (super)	<u>Feed_ID</u> , Feed_PostedDate, Feed_Name, Feed_LikeNum, Feed_Category, Feed_Comment
Content (sub)	<u>Content_ID</u> , Content_Article
VDO (sub)	<u>VDO_ID</u> , VDO_Caption, VDO_Duration

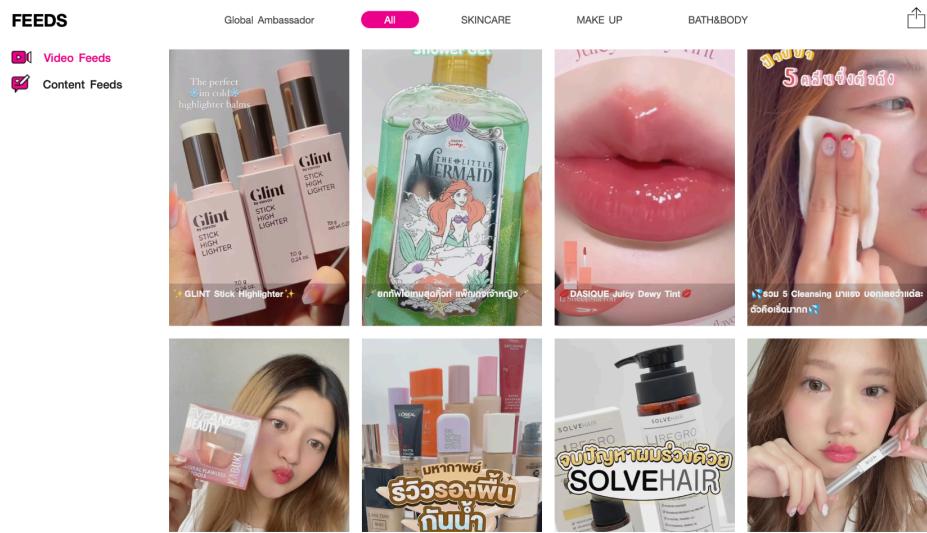


Figure 9 Feeds

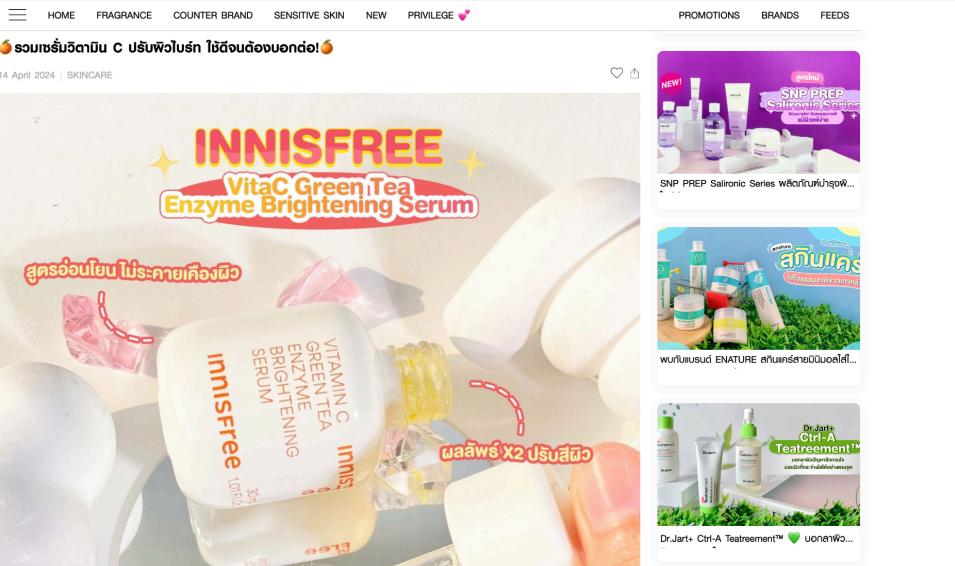


Figure 10 Content

4. Shopping bag management

Explanation:

EVEANDBOY's shopping bag functionality enhances the shopping experience by allowing customers to easily view, update, and manage their selected items. The cart displays product details, totals, and provides options to save items, apply discounts, and estimate shipping costs. The checkout process is straightforward, guiding users through payment and shipping steps for a smooth and convenient purchase.

Data involve the process:	
Account	<u>Acc_ID</u> , Acc_Nname, Acc_Fname, Acc_Lname, Acc_MobileNum, Acc_Email, Acc_Password, Acc_Gender, Acc_BirthDate
ShoppingBag	<u>BagID</u> , SB_ProductList [NameList, PriceList, QuantityList]* <i>composite</i> , SB_Summary [RetailPrice, PromotionDiscount, SubtotalPrice, ShippingFee, TotalDiscount, TotalPrice, TotalPointsEarned]* <i>composite</i>
Product	<u>Serial_Num</u> , PD_Name, PD_Detail, PD_OriginalPrice, PD_DiscountedPrice, PD_HowToUse, PD_Reviews, PD_QnA, PD_Stock
Voucher	<u>Vou_Code</u> , Vou_OfferAmount
Coupon	CP_Name, CP_Condition, CP_Duration, CP_Offer, CP_Logo, <u>CP_Code</u>

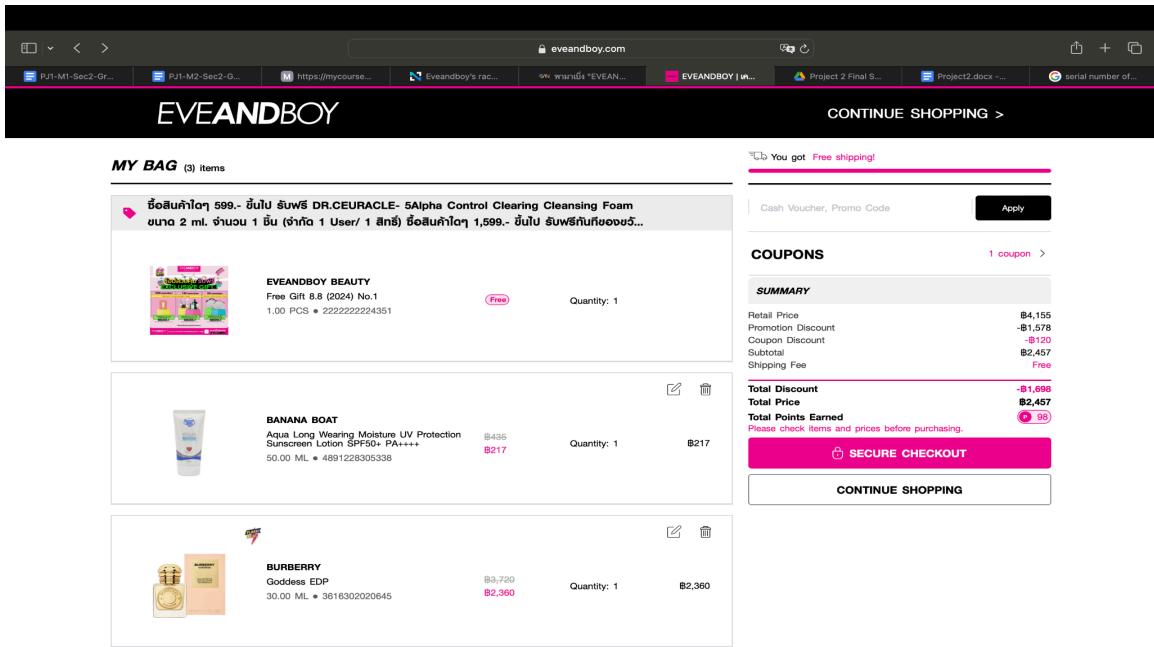


Figure 11 Shopping bag

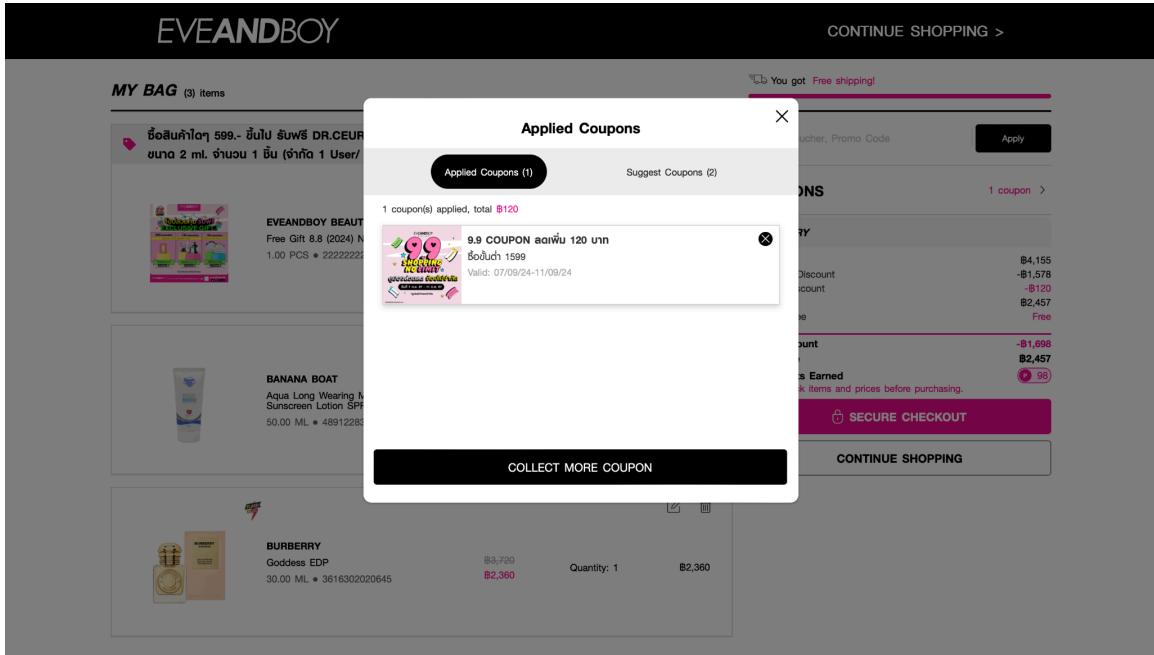


Figure 12 Coupons

5. Payment

Explanation:

EVEANDBOY payment process is designed to be secure and user-friendly, offering a variety of options to accommodate different customer preferences. During checkout, customers can choose from multiple payment methods, including credit or debit cards, bank transfers, mobile banking, and digital wallets like TrueMoney and PromptPay. The platform ensures that all transactions are encrypted to protect customer data.

Data involve the process:	
Account	<u>Acc_ID</u> , Acc_Nname, Acc_Fname, Acc_Lname, Acc_MobileNum, Acc_Email, Acc_Password, Acc_Gender, Acc_BirthDate
Order	<u>Ord_OrderId</u> , Ord_ProductList, Ord_Summary [Retail_Price, Promotion_Discount, Subtotal_Price, Shipping_Fee, Total_Discount, Total_Price, Total_Points_Earned]*composite
Payment*weak	<u>Ord_OrderId</u> , Pa_Method, Pa_PaymentDuration
Shopping_bag	<u>BagID</u> , SB_ProductList [NameList, PriceList, QuantityList]*composite, SB_Summary [RetailPrice, PromotionDiscount, SubtotalPrice, ShippingFee, TotalDiscount, TotalPrice, TotalPointsEarned]*composite

The screenshot shows the payment section of the EVEANDBOY website. At the top, there's a black header bar with the brand name "EVEANDBOY" and a "CONTINUE SHOPPING >" button. Below the header, there's a form for entering delivery information, including a dropdown for country (TH), a phone number (0819999999), and a note field ("Ex. Meet me at lobby"). There's also a checkbox for "Request tax invoice".

The main content area has two sections: "Choose Shipping Method" and "Payment Methods". Under "Choose Shipping Method", it says "Standard" takes "3-5 Business Days" and includes a "฿50 FREE" offer. Under "Payment Methods", there are three options: "Credit / Debit" (disabled), "QR Code" (selected, highlighted in pink), and "Shopee Pay". A note below says "ต้องการชำระ: QR Code ผ่านแอปพลิเคชันธนาคาร ตามที่ระบุไว้" (Payment method: QR Code via bank app, as specified). Below this, logos for SCB, Citi Bank, Krungsri, KTC, and Bangkok are shown.

To the right, there's a "Summary" section titled "Items in Order (3) items". It lists three items:

- EVEANDBOY BEAUTY**: DR.CEURACLE- 5A!pha Control... (Free Gift 8.8 (2024) No.1) - Qty. 1 | ฿0.00
- BANANA BOAT**: Aqua Long Wearing Moisture UV Protection Sunscreen Lotion SPF50+ PA+++ - 50.00 ML • 4891228305338 - Qty. 1 | ฿217
- BURBERRY**: Goddess EDP - 30.00 ML • 3616302020645 - Qty. 1 | ฿2,360

At the bottom, there's a note: "จ่ายด้วย QR Code ผ่านแอปพลิเคชันธนาคารในประเทศไทย" (Pay with QR Code via bank app in Thailand).

Figure 13 Payment screen

6. Shipment

Explanation:

EVEANDBOY shipment process is designed to be efficient and customer-friendly. After completing a purchase, customers can choose from various shipping options, including standard and express delivery, depending on their location. The platform typically provides estimated delivery times and costs based on the shipping method selected.

Data involve the process:	
Account	Acc_ID, Acc_Nname, Acc_Fname, Acc_Lname, Acc_MobileNum, Acc_Email, Acc_Password, Acc_Gender, Acc_BirthDate
Address	ADD_RunningNO, ADD_Fname, ADD_Lname, ADD_NO, ADD_Province, ADD_District, ADD_SubDistrict, ADD_PostalCode, ADD_MobileNum

SHIPPING ADDRESS

Receiver name

Receiver last name

Ex. Address No., Company Name, Floor No. , Street

Select Province Select District

Select Sub-District Postal Code

 TH 0819999999

Ex. Meet me at lobby

Request tax invoice

Choose Shipping Method

Standard 3-5 Business Days **\$50 FREE**

Figure 14 Shipping screen

Business rules

Process:	Account Management
Rule	An account consists of account ID, Nickname, First name, Last name, Mobile number, Email address, Password, Gender, Date of birth.

Process:	Account Management
Rule	A membership comprises account ID, Point, Coin, Coupons list, Membership card name.

Process:	Account Management
Forward	An account can register for one membership. (1:1)
Backward	A membership can only be registered by one account. (1:1)
Conclusion	One account can register for one membership. (1:1)

Process:	Product Searching
Rule	A brand consists of ID, Name, Number of Follower, Logo, Recommendation list.

Process:	Product Searching
Rule	A favorite list consists of ListNumber, Name, Product Number, Product name, Product description, Product Image.

Process:	Product Searching
Rule	A product comprises Name, Detail, Serial Number, Original Price, Discounted Price, How to use, Reviews, Q&A, StockAmount.

Process:	Product Searching
Rule	Search history only consists of a Keyword.

Process:	Product Searching
Rule	Brand Promotion consists of ID, offers, condition, startDate, endDate.

Process:	Product Searching
Forward	An account can have many search histories. (1:M)
Backward	A search history can only belong to one account. (1:1)
Conclusion	Each account can have many search histories. (1:M)

Process:	Product Searching
Forward	An account can follow many brands. (1:M)
Backward	A brand can be followed by many accounts. (1:M)
Conclusion	Many accounts can follow many brands. (M:N)

Process:	Product Searching
Forward	A product category includes many products. (1:M)
Backward	A product can belong to many product categories (1:M)
Conclusion	Many product categories include many products. (M:N)

Process:	Product Searching
Forward	A brand can sell many products. (1:M)
Backward	A product can be sold by only one brand. (1:1)
Conclusion	Each brand can sell many products. (1:M)

Process:	Product Searching
Forward	A favorite list can add many products. (1:M)
Backward	A product can be added to many favorite lists. (1:M)
Conclusion	Each favorite list can add many products. (M:N)

Process:	Product Searching
Forward	A brand can create many BrandPromotions. (1:M)
Backward	A BrandPromotion can be created by only one brand. (1:1)
Conclusion	Each brand can create many BrandPromotions. (1:M)

Process:	Advertisement
Rule	A content consists of ID and Article.

Process:	Advertisement
Rule	A VDO includes ID, Caption, Duration.

Process:	Advertisement
Forward	An account can like many contents. (1:M)
Backward	A content can be liked by many accounts. (1:M)
Conclusion	Many accounts can like many contents. (M:N)

Process:	Advertisement
Forward	An account can like many VDOs. (1:M)
Backward	A VDO can be liked by many accounts. (1:M)
Conclusion	Many accounts can like many VDOs. (M:N)

Process:	Shopping bag management
Rule	A voucher comprises Code and OfferAmount.

Process:	Shopping bag management
Rule	A shopping bag consists of BagID, Name List, Price List, QuantityList, Retail Price, Promotion Discount, Subtotal Price, Shipping Fee, Total Discount, Total Price, Total Points Earned.

Process:	Shopping bag management
Rule	A coupon consists of CouponName, CouponCondition, CouponDuration, CouponOffer, Logo, CouponCode.

Process:	Shopping bag management
Forward	A shopping bag can apply many vouchers. (1:M)
Backward	A voucher can be applied in only one shopping bag. (1:1)
Conclusion	Each shopping bag can apply many vouchers. (1:M)

Process:	Shopping bag management
Forward	An account can own only one shopping bag. (1:1)
Backward	A shopping bag can be owned by one account. (1:1)
Conclusion	Each account can own only one shopping bag. (1:1)

Process:	Shopping bag management
Forward	A shopping bag can add many coupons. (1:M)
Backward	A coupon can be added in only one shopping. (1:1)
Conclusion	Each shopping bag can add many coupons. (1:M)

Process:	Payment
Rule	An order consists of OrderId, ProductList, Retail Price, Promotion Discount, Subtotal Price, Shipping Fee, Total Discount, Total Price, Total Points Earned.

Process:	Payment
Rule	A payment consists of OrderId, Method, PaymentDuration.

Process:	Payment
Forward	A shopping bag transfers to one order. (1:1)
Backward	An order can be transferred to one shopping bag. (1:1)
Conclusion	Each shopping bag transfers to one order. (1:1)

Process:	Payment
Forward	An order has one payment. (1:1)
Backward	A payment can be for only one order. (1:1)
Conclusion	Each order can have one payment. (1:1)

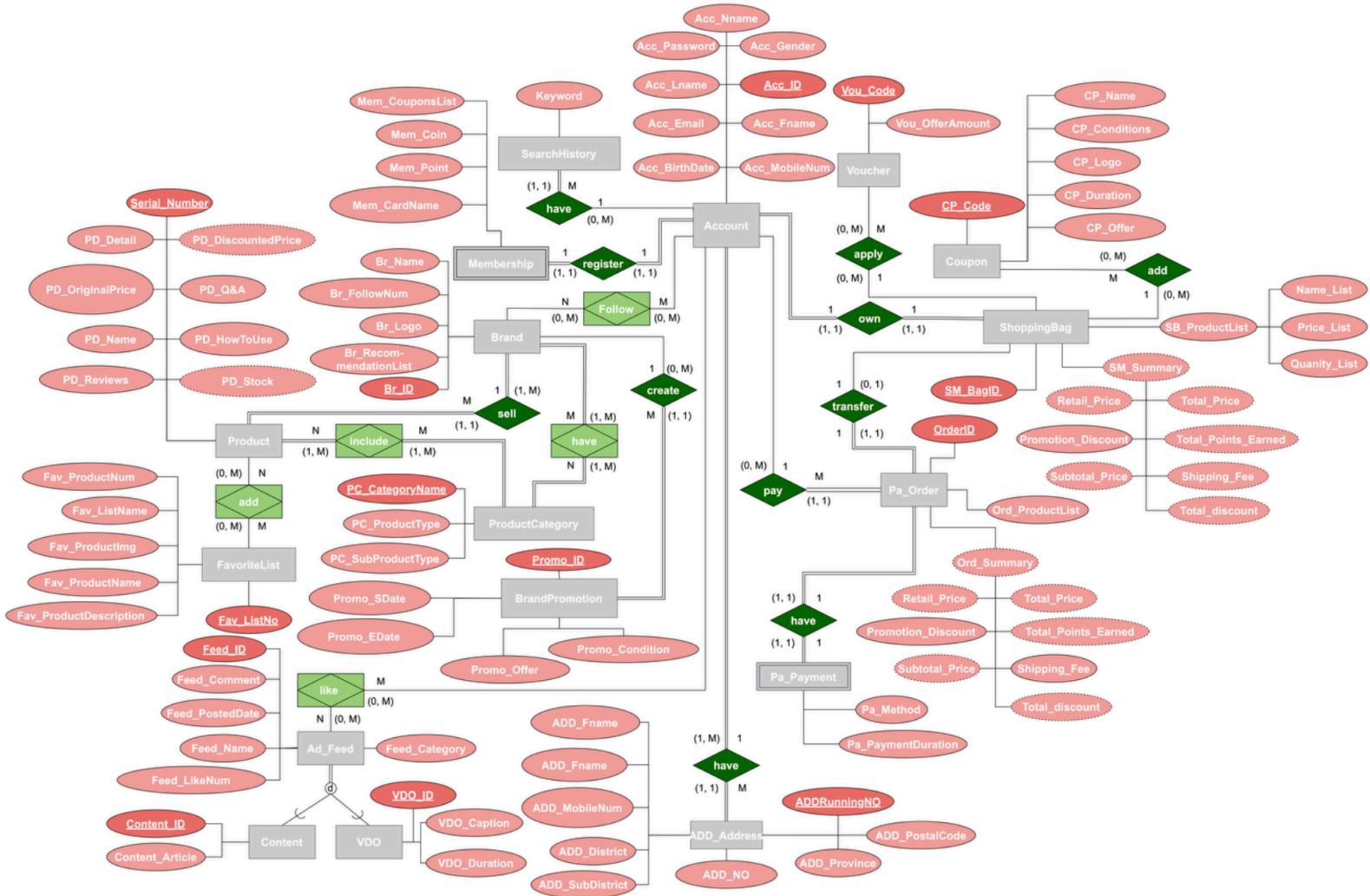
Process:	Shipment
Rule	An address consists of RunningNO, Receiver Firstname, Receiver Lastname, AddressNO, Province, District, Sub-District, Postal Code, Receiver Mobile Number.

Process:	Shipment
Forward	An account can have many shipping addresses. (1:M)
Backward	A shipping address can be owned by one account. (1:1)
Conclusion	An account can have many shipping addresses. (1:M)

ERD

Link to ERD:

https://drive.google.com/drive/folders/1yJveDPmTTukz_HiRzN4yKEM_Qf9mDnnR?usp=sharing



Relational Data Model

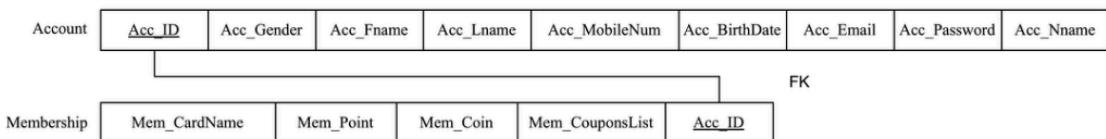
Links to Relational Data Model:

https://drive.google.com/drive/folders/1sIIIDHOHDDAy8B4rjaS15h_BUjezLMDS?usp=share_link

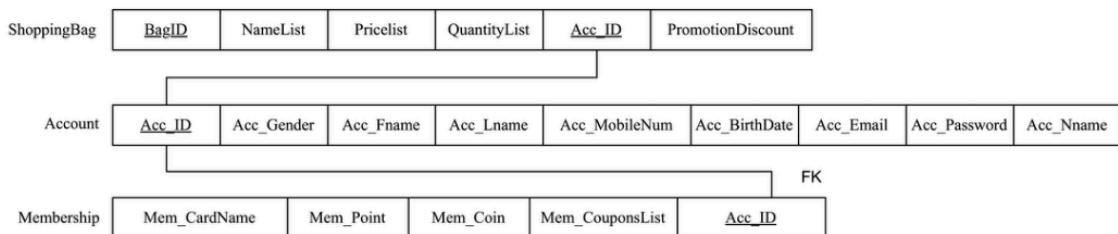
Step 1: Regular Entity

Accounts	<u>Acc_ID</u>	Acc_Gender	Acc_Fname	Acc_Lname	Acc_MobileNum	Acc_BirthDate	Acc_Email	Acc_Password	Acc_Nname
BaggingBag	<u>BagID</u>	NameList	Pricelist	QuantityList	PromotionDiscount				
Brand	<u>Br_ID</u>	Br_RecommendationList	Br_Logo	Br_Name	Br_FollowNum				
Promotion	<u>Promo_ID</u>	Promo_Conditon	Promo_Offer		Promo_SDate		Promo_EDate		
Product	<u>Serial_Num</u>	PD_Detail	PD_OriginalPrice	PD_Name	PD_Reviews	PD_Q&A	PD_HowToUse		PD_Stock
Address	<u>ADD_RunningNO</u>	ADD_Province	ADD_PostalCode	ADD_NO	ADD_SubDistrict	ADD_District	ADD_MobileNum	ADD_Lname	ADD_Fname

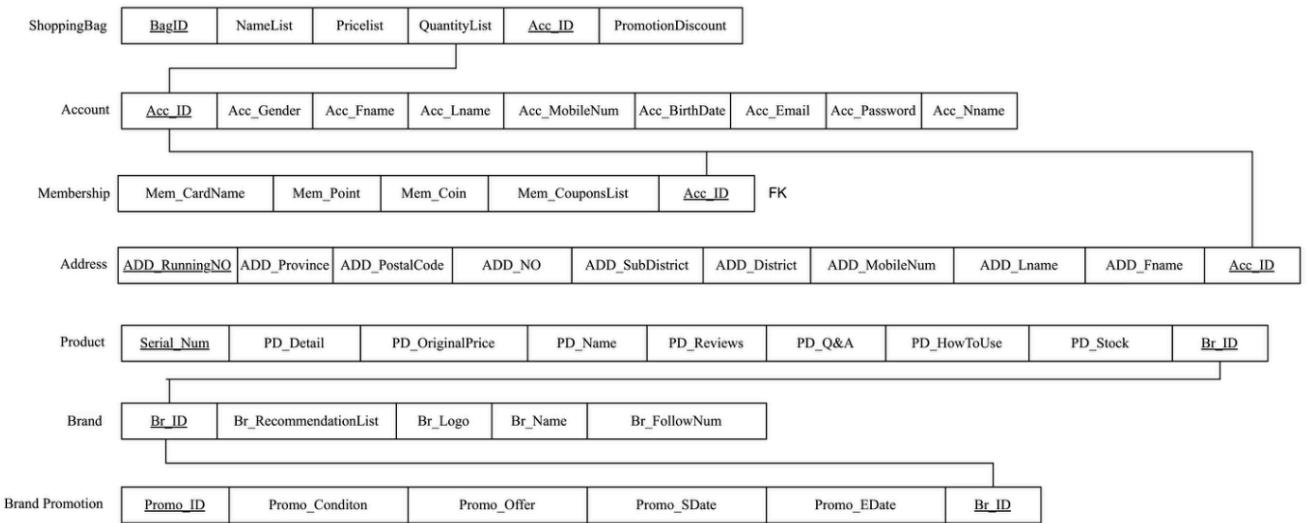
Step 2: Weak Entity



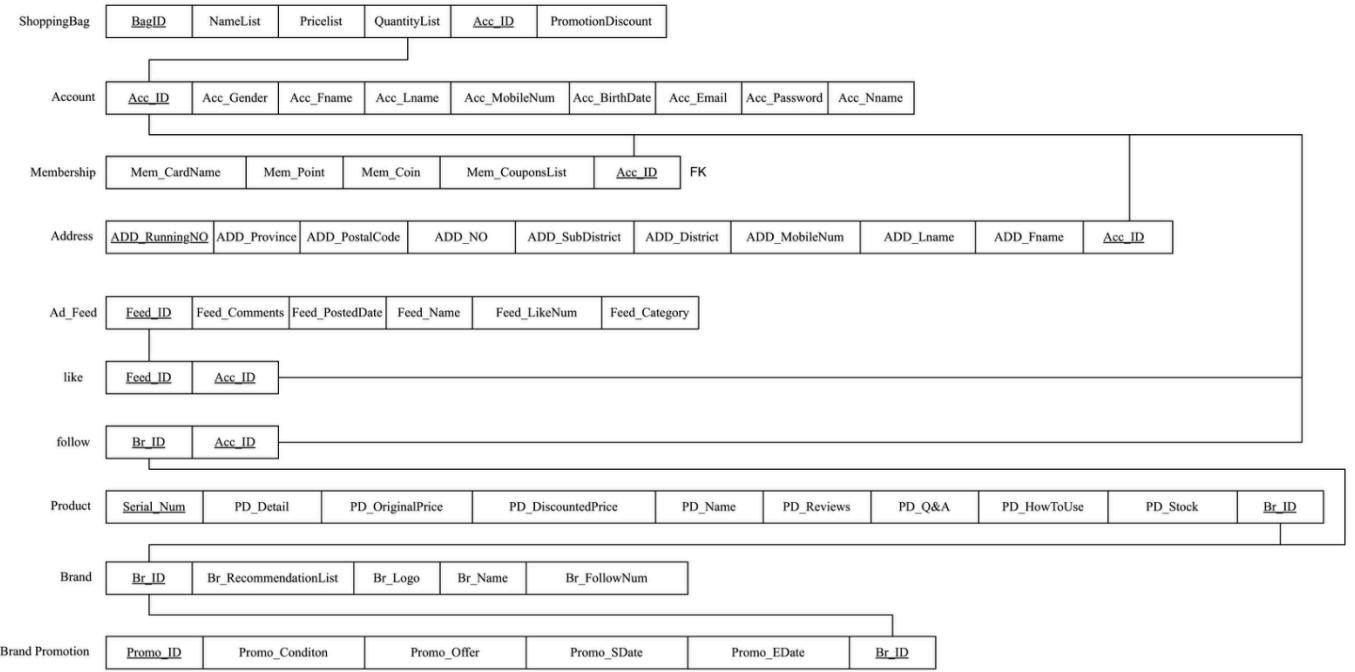
Step 3: 1-1



Step 4: 1-M



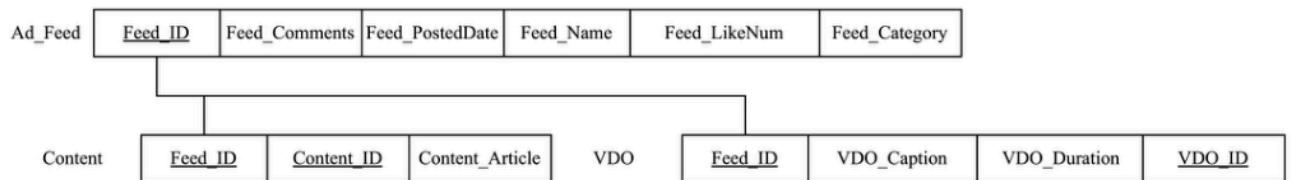
Step 5: M-N



Step 6: Multi-value NO

Step 7: N-ary NO

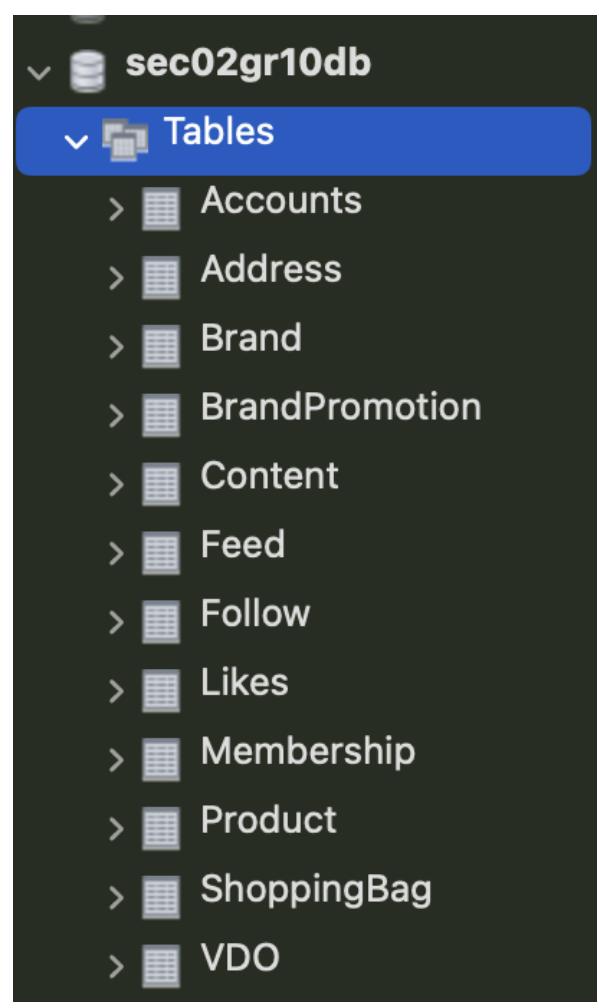
Step 8: Transforming Specialization or Generalization



Final Relational Data Model



Database



The screenshot shows a database management interface with a dark theme. On the left, a tree view displays the structure of the 'sec02gr10db' database. The 'Tables' node is expanded, revealing ten tables: Accounts, Address, Brand, BrandPromotion, Content, Feed, Follow, Likes, Membership, Product, ShoppingBag, and VDO. The 'Tables' node itself is highlighted with a blue background.

Create database named “sec02gr10db”

Object Info	Session																		
<p>Table: Accounts</p> <p>Columns:</p> <table> <tbody> <tr> <td>Acc_ID</td><td>char(8) PK</td></tr> <tr> <td>Acc_Nname</td><td>varchar(20)</td></tr> <tr> <td>Acc_Fname</td><td>varchar(20)</td></tr> <tr> <td>Acc_Lname</td><td>varchar(20)</td></tr> <tr> <td>Acc_MobileNum</td><td>char(10)</td></tr> <tr> <td>Acc_Email</td><td>varchar(30)</td></tr> <tr> <td>Acc_Password</td><td>varchar(20)</td></tr> <tr> <td>Acc_Gender</td><td>char(1)</td></tr> <tr> <td>Acc_BirthDate</td><td>date</td></tr> </tbody> </table>	Acc_ID	char(8) PK	Acc_Nname	varchar(20)	Acc_Fname	varchar(20)	Acc_Lname	varchar(20)	Acc_MobileNum	char(10)	Acc_Email	varchar(30)	Acc_Password	varchar(20)	Acc_Gender	char(1)	Acc_BirthDate	date	<p><u>Accounts:</u> Table for collecting Account ID, NickName, FirstName, LastName, MobileNumber, Email, Password, Gender, BirthDate.</p>
Acc_ID	char(8) PK																		
Acc_Nname	varchar(20)																		
Acc_Fname	varchar(20)																		
Acc_Lname	varchar(20)																		
Acc_MobileNum	char(10)																		
Acc_Email	varchar(30)																		
Acc_Password	varchar(20)																		
Acc_Gender	char(1)																		
Acc_BirthDate	date																		

Object Info	Session																				
<p>Table: Address</p> <p>Columns:</p> <table> <tbody> <tr> <td>ADD_RunningNO</td><td>char(8) PK</td></tr> <tr> <td>ADD_Fname</td><td>varchar(30)</td></tr> <tr> <td>ADD_Lname</td><td>varchar(30)</td></tr> <tr> <td>ADD_NO</td><td>varchar(10)</td></tr> <tr> <td>ADD_Province</td><td>varchar(30)</td></tr> <tr> <td>ADD_District</td><td>varchar(30)</td></tr> <tr> <td>ADD_SubDistrict</td><td>varchar(30)</td></tr> <tr> <td>ADD_PostalCode</td><td>char(5)</td></tr> <tr> <td>ADD_MobileNum</td><td>char(10)</td></tr> <tr> <td>Acc_ID</td><td>char(8)</td></tr> </tbody> </table>	ADD_RunningNO	char(8) PK	ADD_Fname	varchar(30)	ADD_Lname	varchar(30)	ADD_NO	varchar(10)	ADD_Province	varchar(30)	ADD_District	varchar(30)	ADD_SubDistrict	varchar(30)	ADD_PostalCode	char(5)	ADD_MobileNum	char(10)	Acc_ID	char(8)	<p><u>Address</u>: Table for collecting Address Running Number, FirstName, LastName, Address Number, Province, District, SubDistrict, Postal Code, MobileNumber, Account ID.</p>
ADD_RunningNO	char(8) PK																				
ADD_Fname	varchar(30)																				
ADD_Lname	varchar(30)																				
ADD_NO	varchar(10)																				
ADD_Province	varchar(30)																				
ADD_District	varchar(30)																				
ADD_SubDistrict	varchar(30)																				
ADD_PostalCode	char(5)																				
ADD_MobileNum	char(10)																				
Acc_ID	char(8)																				

Object Info	Session										
<p>Table: Brand</p> <p>Columns:</p> <table> <tbody> <tr> <td><u>Br_ID</u></td> <td>char(8) PK</td> </tr> <tr> <td>Br_Name</td> <td>varchar(30)</td> </tr> <tr> <td>Br_FollowNum</td> <td>int</td> </tr> <tr> <td>Br_Logo</td> <td>varchar(1000))</td> </tr> <tr> <td>Br_RecommendList</td> <td>varchar(30)</td> </tr> </tbody> </table>	<u>Br_ID</u>	char(8) PK	Br_Name	varchar(30)	Br_FollowNum	int	Br_Logo	varchar(1000))	Br_RecommendList	varchar(30)	<p><u>Brand</u>: Table for collecting Brand ID, Name, Followers Number, Logo, Recommend List.</p>
<u>Br_ID</u>	char(8) PK										
Br_Name	varchar(30)										
Br_FollowNum	int										
Br_Logo	varchar(1000))										
Br_RecommendList	varchar(30)										

Object Info	Session												
Table: BrandPromotion Columns: <table> <tr> <td>Promo_ID</td> <td>char(8) PK</td> </tr> <tr> <td>Promo_Offer</td> <td>varchar(100)</td> </tr> <tr> <td>Promo_Condition</td> <td>varchar(50)</td> </tr> <tr> <td>Promo_SDate</td> <td>date</td> </tr> <tr> <td>Promo_EDate</td> <td>date</td> </tr> <tr> <td>Br_ID</td> <td>char(8)</td> </tr> </table>	Promo_ID	char(8) PK	Promo_Offer	varchar(100)	Promo_Condition	varchar(50)	Promo_SDate	date	Promo_EDate	date	Br_ID	char(8)	<u>BrandPromotion</u> : Table for collecting Promotion ID, Offers, Condition, Start Date, End Date, Brand ID.
Promo_ID	char(8) PK												
Promo_Offer	varchar(100)												
Promo_Condition	varchar(50)												
Promo_SDate	date												
Promo_EDate	date												
Br_ID	char(8)												

Object Info	Session						
<p>Table: Content</p> <p>Columns:</p> <table><tr><td>Feed_ID</td><td>char(8)</td></tr><tr><td>Content_ID</td><td>char(8) PK</td></tr><tr><td>Content_Article</td><td>varchar(100)</td></tr></table>	Feed_ID	char(8)	Content_ID	char(8) PK	Content_Article	varchar(100)	<p><u>Content</u>: Table for collecting Feed ID, Content ID, Article.</p>
Feed_ID	char(8)						
Content_ID	char(8) PK						
Content_Article	varchar(100)						

Object Info	Session												
<p>Table: Feed</p> <p>Columns:</p> <table> <tbody> <tr> <td>Feed_ID</td> <td>char(8) PK</td> </tr> <tr> <td>Feed_PostedDate</td> <td>date</td> </tr> <tr> <td>Feed_Name</td> <td>varchar(30)</td> </tr> <tr> <td>Feed_LikeNum</td> <td>int</td> </tr> <tr> <td>Feed_Category</td> <td>varchar(30)</td> </tr> <tr> <td>Feed_Comment</td> <td>varchar(50)</td> </tr> </tbody> </table>	Feed_ID	char(8) PK	Feed_PostedDate	date	Feed_Name	varchar(30)	Feed_LikeNum	int	Feed_Category	varchar(30)	Feed_Comment	varchar(50)	<p><u>Feed</u>: Table for collecting Feed ID, Posted Date, Name, Like Numbers, Category, Comment.</p>
Feed_ID	char(8) PK												
Feed_PostedDate	date												
Feed_Name	varchar(30)												
Feed_LikeNum	int												
Feed_Category	varchar(30)												
Feed_Comment	varchar(50)												

Object Info	Session				
<p>Table: Follow</p> <p>Columns:</p> <table><tr><td>Br_ID</td><td>char(8)</td></tr><tr><td>Acc_ID</td><td>char(8)</td></tr></table>	Br_ID	char(8)	Acc_ID	char(8)	<p><u>Follow</u>: Table for collecting Brand ID, Account ID.</p>
Br_ID	char(8)				
Acc_ID	char(8)				

Object Info	Session				
<p>Table: Likes</p> <p>Columns:</p> <table><tr><td>Feed_ID</td><td>char(8)</td></tr><tr><td>Acc_ID</td><td>char(8)</td></tr></table>	Feed_ID	char(8)	Acc_ID	char(8)	<p><u>Likes</u>: Table for collecting Feed ID, Account ID.</p>
Feed_ID	char(8)				
Acc_ID	char(8)				

Object Info	Session										
<p>Table: Membership</p> <p>Columns:</p> <table> <tbody> <tr> <td>Acc_ID</td><td>char(8) PK</td></tr> <tr> <td>Mem_Point</td><td>decimal(12,2)</td></tr> <tr> <td>Mem_Coin</td><td>int</td></tr> <tr> <td>Mem_CouponsList</td><td>varchar(50)</td></tr> <tr> <td>Mem_CardName</td><td>varchar(30)</td></tr> </tbody> </table>	Acc_ID	char(8) PK	Mem_Point	decimal(12,2)	Mem_Coin	int	Mem_CouponsList	varchar(50)	Mem_CardName	varchar(30)	<p><u>Membership</u>: Table for collecting Account ID, Point, Coin, Coupons List, Card Name.</p>
Acc_ID	char(8) PK										
Mem_Point	decimal(12,2)										
Mem_Coin	int										
Mem_CouponsList	varchar(50)										
Mem_CardName	varchar(30)										

Object Info	Session																		
<p>Table: Product</p> <p>Columns:</p> <table> <tbody> <tr> <td>Serial_Num</td><td>char(13) PK</td></tr> <tr> <td>PD_Name</td><td>varchar(30)</td></tr> <tr> <td>PD_Detail</td><td>varchar(300)</td></tr> <tr> <td>PD_OriginalPrice</td><td>decimal(12,2)</td></tr> <tr> <td>PD_HowToUse</td><td>varchar(500)</td></tr> <tr> <td>PD_Review</td><td>varchar(500)</td></tr> <tr> <td>PD_QnA</td><td>varchar(500)</td></tr> <tr> <td>PD_Stock</td><td>int</td></tr> <tr> <td>Br_ID</td><td>char(8)</td></tr> </tbody> </table>	Serial_Num	char(13) PK	PD_Name	varchar(30)	PD_Detail	varchar(300)	PD_OriginalPrice	decimal(12,2)	PD_HowToUse	varchar(500)	PD_Review	varchar(500)	PD_QnA	varchar(500)	PD_Stock	int	Br_ID	char(8)	<p><u>Product</u>: Table for collecting Product Serial Number, Name, Detail, Original Price, How to Use, Review, Q&A, Stock, Brand ID.</p>
Serial_Num	char(13) PK																		
PD_Name	varchar(30)																		
PD_Detail	varchar(300)																		
PD_OriginalPrice	decimal(12,2)																		
PD_HowToUse	varchar(500)																		
PD_Review	varchar(500)																		
PD_QnA	varchar(500)																		
PD_Stock	int																		
Br_ID	char(8)																		

Object Info	Session										
<p>Table: ShoppingBag</p> <p>Columns:</p> <table> <tbody> <tr> <td>BagID</td> <td>char(8) PK</td> </tr> <tr> <td>NameList</td> <td>varchar(50)</td> </tr> <tr> <td>PriceList</td> <td>decimal(12,2)</td> </tr> <tr> <td>QuantityList</td> <td>int</td> </tr> <tr> <td>Acc_ID</td> <td>char(8)</td> </tr> </tbody> </table>	BagID	char(8) PK	NameList	varchar(50)	PriceList	decimal(12,2)	QuantityList	int	Acc_ID	char(8)	<p><u>ShoppingBag</u>: Table for collecting Bag ID, Name List, Price List, Quality List, Account ID.</p>
BagID	char(8) PK										
NameList	varchar(50)										
PriceList	decimal(12,2)										
QuantityList	int										
Acc_ID	char(8)										

Object Info	Session								
<p>Table: VDO</p> <p>Columns:</p> <table><tbody><tr><td>Feed_ID</td><td>char(8)</td></tr><tr><td>VDO_ID</td><td>char(8) PK</td></tr><tr><td>VDO_Caption</td><td>varchar(100)</td></tr><tr><td>VDO_Duration</td><td>time</td></tr></tbody></table>	Feed_ID	char(8)	VDO_ID	char(8) PK	VDO_Caption	varchar(100)	VDO_Duration	time	<p>VDO: Table for collecting Feed ID, VDO ID, Caption, Duration.</p>
Feed_ID	char(8)								
VDO_ID	char(8) PK								
VDO_Caption	varchar(100)								
VDO_Duration	time								

Data Dictionary

Table Name	Attribute Name	Content	Types	Format	Nullable	Range	Key	FK Ref. Table
Shopping Bag	BagID	ID of the shopping bag	CHAR(8)	xxxxxxxx x			PK	
	NameList	name list of shopping bag	NVARCHAR (50)	xxxxxxxx xxxxxxxx xxxxxx	Y			
	PriceList	price list of shopping bag	DECIMAL (12,2)	xxxxxxxx xxxx.xx	Y			
	QuantityList	quality list of shopping bag	INT	xxxxxxxx				
	Acc_ID	accountID of shopping bag	CHAR(8)	xxxxxxxx x			FK	Acc_ID [Account]
Account	Acc_ID	accountID of account	CHAR(8)	xxxxxxxx x			PK	
	Acc_Gender	gender of account	CHAR(1)	x		M/F		
	Acc_Fname	first name of account	NVARCHAR (20)	xxxxxxxx xxxxxxxx xxxxxx				
	Acc_Lname	last name of account	NVARCHAR (20)	xxxxxxxx xxxxxxxx xxxxxx				
	Acc_MobileNum	mobile number of account	CHAR(10)	xxxxxxxx xxx				
	Acc_BirthDate	birthday of account	DATE	YYYY-MM-DD				
	Acc_Email	email address of account	NVARCHAR (30)	xxxxxxxx xxxxxxxx xxxxxx				

	Acc_Password	password of account	VARCHAR (20)	xxxxxxxx xxxxxxxx xxxxxx				
	Acc_Nname	nickname of account	NVARCHAR (20)	xxxxxxxx xxxxxxxx xxxxxx	Y			
Membership	Mem_CardName	membershi p card name of account	NVARCHAR (30)	xxxxxxxx xxxxxxxx xxxxxx				
	Mem_Point	point of account	DECIMAL (12,2)	xxxxxxxx xxxx.xx				
	Mem_Coin	coin of account	INT	x				
	Mem_CouponsList	coupon list of account	NVARCHAR (50)	xxxxxxxx xxxxxxxx xxxxxx	Y			
	Acc_ID	accountID of account	CHAR(8)	xxxxxxxx x			PK, FK	Acc_ID [Account]
Address	ADD_RunningNO	running no of account	CHAR(8)	xxxxxxxx x			PK	
	ADD_Province	province of account	NVARCHAR (30)	xxxxxxxx xxxxxxxx x				
	ADD_PostalCode	postal code of account	CHAR(5)	xxxxx				
	ADD_NO	address of account	NVARCHAR (10)	xxxxxxxx xxx				
	ADD_SubDistrict	sub district of account	NVARCHAR (30)	xxxxxxxx xxxxxxxx xxxxxxxx x				
	ADD_District	district of account	NVARCHAR (30)	xxxxxxxx xxxxxxxx xxxxxx				
	ADD_MobileNum	receiver mobile number of account	CHAR(10)	xxxxxxxx xxx				

	ADD_Fname	receiver first name of account	NVARCHAR (30)	xxxxxxxx xxxxxxxx				
	ADD_Lname	receiver last name of account	NVARCHAR (30)	xxxxxxxx xxxxxxxx				
	Acc_ID	accountID of account	CHAR(8)	xxxxxxxx x			FK	Acc_ID [Account]
Feed	Feed_ID	feedID of feed	CHAR(8)	x			PK	
	Feed_Comments	comments of feed	NVARCHAR (50)	xxxxxxxx xxxxxxxx xxxxxx	Y			
	Feed_PostedDate	posted date of feed	DATE	YYYY/ MM/DD				
	Feed_Name	name of feed	NVARCHAR (50)	xxxxxxxx xxxxxxxx xxxxxx				
	Feed_LikeNum	number of likes of feed	INT	x	Y			
	Feed_Category	category of feed	NVARCHAR (30)	xxxxxxxx xxxxxxxx xxxxxx				
Content	Feed_ID	feedID of content	CHAR(8)	xxxxxxxx x			FK	Feed_ID [Feed]
	Content_ID	contentID of content	CHAR(8)	xxxxxxxx x			PK	
	Content_Article	article of content	NVARCHAR (100)	xxxxxxxx xxxxxxxx xxxxxx				
VDO	Feed_ID	feedID of VDO	CHAR(8)	xxxxxxxx x			FK	Feed_ID [Feed]
	VDO_ID	VDOID of VDO	CHAR(8)	xxxxxxxx x			PK	
	VDO_Caption	VDO caption of VDO	NVARCHAR (100)	xxxxxxxx	Y	1-500		

	VDO_Duration	VDO duration of VDO	TIME	x				
Likes	Feed_ID	feedID of like	CHAR(8)	xxxxxxxx x			FK	Feed_ID [Feed]
	Acc_ID	accountID of like	CHAR(8)	xxxxxxxx x			FK	Acc_ID [Account]
Follow	Br_ID	brandID of follow	CHAR(8)	xxxxxxxx x			FK	Br_ID [Brand]
	Acc_ID	accountID of follow	CHAR(8)	xxxxxxxx			FK	Acc_ID [Account]
Product	Serial_Num	serial number of product	CHAR (13)	xxxxxxxx xxxxxx			PK	
	PD_Name	Name of the product	NVARCHAR (30)	xxxxxxxx xxxxxxxx xx				
	PD_Detail	product detail of product	NVARCHAR (300)	xxxxxxxx xxxxxxxx xxxxx				
	PD_OriginalPrice	product original price of product	DECIMAL (12,2)	xxxxxxxx xxx.xx				
	PD_Reviews	reviews of product	NVARCHAR (100)	xxxxxxxx xxxxxxxx xx	Y			
	PD_Q&A	Q&A of product	NVARCHAR (100)	xxxxxxxx xxxxxxxx xx	Y			
	PD_HowToUse	how to use of product	NVARCHAR (500)	xxxxxxxx xxxxxxxx xx				
	PD_Stock	stock amount of product	INT	x				
	Br_ID	brandID of product	CHAR(8)	xxxxxxxx x			FK	Br_ID [Brand]
Brand	Br_ID	brandID of brand	CHAR(8)	xxxxxxxx x			PK	

	Br_Recommendation list	recommendation list of brand	NVARCHAR (30)	xxxxxxxx xxxxxxxx xx				
	Br_Logo	brand logo of brand	NVARCHAR (1000)	xxxxxxxx xxxxxxxx xx				
	Br_Name	brand name of brand	NVARCHAR (30)	xxxxxxxx xxxxxxxx xx				
	Br_FollowNum	brand number of follow of brand	INT	x				
Brand Promotion	Promo_ID	promotion ID of brand promotion	CHAR(8)	xxxxxxxx x			PK	
	Promo_Condition	promotion condition of brand promotion	NVARCHAR (30)	xxxxxxxx xxxxxxxx xx				
	Promo_StDate	promotion start date of brand promotion	DATE	YYYY/ MM/DD				
	Promo_Offer	promotion offer of brand promotion	NVARCHAR (100)	xxxxxxxx xxxxxxxx xx	Y			
	Promo_EDate	promotion date of brand promotion	DATE	YYYY- MM-DD				
	Br_ID	brandID of brand promotion	CHAR(8)	xxxxxxxx			FK	Br_ID [Brand]

Table

Create Table	Insert
<ul style="list-style-type: none"> • <code>CREATE TABLE Accounts (Acc_ID CHAR(8) NOT NULL, Acc_Nname NVARCHAR(20), Acc_Fname NVARCHAR(20) NOT NULL, Acc_Lname NVARCHAR(20) NOT NULL, Acc_MobileNum CHAR(10) NOT NULL, Acc_Email NVARCHAR(30) NOT NULL, Acc_Password VARCHAR(20) NOT NULL, Acc_Gender CHAR(1) NOT NULL, Acc_BirthDate DATE NOT NULL, CONSTRAINT Acc_ID PRIMARY KEY (Acc_ID));</code> • <code>desc Accounts;</code> 	<pre>INSERT INTO Accounts (Acc_ID, Acc_Nname, Acc_Fname, Acc_Lname, Acc_MobileNum, Acc_Email, Acc_Password, Acc_Gender, Acc_BirthDate) VALUES ('00000001', 'Chai', 'Somchai', 'Somsri', '0912402040', 'somchai@gmail.com', 'chai123', 'M', '2004-11-02'), ('00000002', 'Nong', 'Somsak', 'Som Sri', '0823456789', 'nongsak@gmail.com', 'nongsak123', 'M', '2002-05-14'), ('00000003', 'Am', 'Ananya', 'Siri', '0834567890', 'ananya.siri@hotmail.com', 'ananya123', 'F', '2001-08-21'), ('00000004', ' Mai', 'Noknoy', 'Thongchai', '0845678901', 'Noknoy@hotmail.com', 'mai123', 'F', '2003-12-09'), ('00000005', 'Pong', 'Pongpat', 'Ratchada', '0856789012', 'pongpat.ratchada@mail.com', 'pongpat123', 'M', '2000-03-17'), ('00000006', 'Fan', 'Phawinee', 'Charoen Suk', '0867890123', 'fon.charoen suk@hotmail.com', 'fon123', 'F', '2001-07-22'), ('00000007', 'Tee', 'Teerawat', 'Boonlert', '0878901234', 'tee.boonlert@outlook.com', 'tee123', 'M', '1999-09-30'), ('00000008', 'Nok', 'Noknoy', 'Kanokwan', '0889012345', 'nokkanok@gmail.com', 'nok123', 'F', '2003-11-05'), ('00000009', 'Ood', 'Drawan', 'Wonglert', '0890123456', 'ood.wonglert@hotmail.com', 'ood123', 'F', '2002-04-11'), ('00000010', 'Ood', 'Jitpanyade', 'Panayajide', '0890124456', 'jit.maide@gmail.com', 'jit123', 'F', '2006-02-11'), ('00000011', 'Beam', 'Burana', 'Wongs', '0801234567', 'beam@gmail.com', 'beam123', 'M', '2000-12-25'), ('00000012', 'Bank', 'Kitti', 'Chai', '0801268597', 'bankza@gmail.com', 'bank24242', 'M', '2000-12-25');</pre>
<ul style="list-style-type: none"> • <code>CREATE TABLE ShoppingBag (BagID CHAR(8) NOT NULL, NameList NVARCHAR(50), PriceList DECIMAL(12,2), QuantityList INT NOT NULL, Acc_ID CHAR(8) NOT NULL, CONSTRAINT BagID PRIMARY KEY (BagID), CONSTRAINT BagAcc_ID FOREIGN KEY (Acc_ID) REFERENCES Accounts(Acc_ID));</code> • <code>desc ShoppingBag;</code> 	<pre>INSERT INTO ShoppingBag (BagID, NameList, PriceList, QuantityList, Acc_ID) VALUES ('00000001', 'Cosmetic Set A', 1200.50, 2, '00000001'), ('00000002', 'Skincare Kit B', 950.00, 1, '00000002'), ('00000003', 'Fragrance Pack C', 1800.75, 3, '00000003'), ('00000004', 'Makeup Bundle D', 750.20, 4, '00000004'), ('00000005', 'Haircare Set E', 640.00, 2, '00000005'), ('00000006', 'Wellness Combo F', 500.00, 5, '00000006'), ('00000007', 'Beauty Kit G', 1125.30, 1, '00000007'), ('00000008', 'Travel Pack H', 300.45, 6, '00000008'), ('00000009', 'Luxury Skincare I', 1500.90, 2, '00000009'), ('00000010', 'Fragrance Set J', 850.80, 3, '00000010'), ('00000011', 'SOAP Set K', 850.80, 3, '00000011'), ('00000012', 'SOAP Set L', 850.80, 3, '00000012'), ('00000013', 'Fragrance Set O', 850.80, 3, '00000010'), ('00000014', 'Beauty Kit G', 1125.30, 1, '00000007');</pre>
<ul style="list-style-type: none"> • <code>CREATE TABLE Membership (Acc_ID CHAR(8) NOT NULL, Mem_Point DECIMAL(12,2) NOT NULL, Mem_Coin INT NOT NULL, Mem_CouponsList NVARCHAR(50) NOT NULL, Mem_CardName NVARCHAR(30) NOT NULL, CONSTRAINT MemAcc_ID PRIMARY KEY (Acc_ID), CONSTRAINT MemAcc_ID FOREIGN KEY (Acc_ID) REFERENCES Accounts(Acc_ID));</code> • <code>desc Membership;</code> 	<pre>INSERT INTO Membership (Acc_ID, Mem_Point, Mem_Coin, Mem_CouponsList, Mem_CardName) VALUES ('00000001', 2500.50, 10, 'CouponA,CouponB', 'CardA'), ('00000002', 1800.00, 5, 'CouponC,CouponD', 'CardB'), ('00000003', 1200.30, 7, 'CouponE,CouponF', 'CardC'), ('00000004', 3000.75, 12, 'CouponG,CouponH', 'CardD'), ('00000005', 1500.20, 6, 'CouponI,CouponJ', 'CardE'), ('00000006', 2200.60, 8, 'CouponK,CouponL', 'CardF'), ('00000007', 2800.90, 11, 'CouponM,CouponN', 'CardG'), ('00000008', 1900.00, 9, 'CouponO,CouponP', 'CardH'), ('00000009', 3500.45, 15, 'CouponQ,CouponR', 'CardI'), ('00000010', 2700.80, 10, 'CouponS,CouponT', 'CardJ'), ('00000011', 2350.80, 10, 'CouponK,CouponK', 'CardK');</pre>

```

• ⊖ CREATE TABLE Address (
    ADD_RunningNO CHAR(8) NOT NULL,
    ADD_Fname NVARCHAR(30) NOT NULL,
    ADD_Lname NVARCHAR(30) NOT NULL,
    ADD_NO NVARCHAR(10) NOT NULL,
    ADD_Province NVARCHAR(30) NOT NULL,
    ADD_District NVARCHAR(30) NOT NULL,
    ADD_SubDistrict NVARCHAR(30) NOT NULL,
    ADD_PostalCode CHAR(5) NOT NULL,
    ADD_MobileNum CHAR(10) NOT NULL,
    Acc_ID CHAR(8) NOT NULL,
    CONSTRAINT RunningNO PRIMARY KEY (ADD_RunningNO),
    CONSTRAINT AddAcc_ID FOREIGN KEY (Acc_ID)
        REFERENCES Accounts(Acc_ID)
);
• desc Address;

```

```

INSERT INTO Address (ADD_RunningNO, ADD_Fname, ADD_Lname, ADD_NO, ADD_Province, ADD_District, ADD_SubDistrict, ADD_PostalCode, ADD_MobileNum, Acc_ID)
VALUES
('10000001', 'Somchai', 'Somsri', '1234', 'Bangkok', 'Sukhumvit', 'Phra Khanong', '10110', '0912402040', '00000001'),
('10000002', 'Somsak', 'Somsri', '5678', 'Phuket Mai', 'Muang', 'Sut', '50200', '0823456789', '00000002'),
('10000003', 'Ananya', 'Siri', '9101', 'Phuket', 'Muang', 'Talad Yai', '83000', '0834567890', '00000003'),
('10000004', 'Suphansa', 'Thongchai', '1122', 'Chonburi', 'Siriracha', 'Samaeing', '2010', '0845678901', '00000004'),
('10000005', 'Pongpat', 'Ratchada', '3344', 'Ayutthaya', 'Sena', 'Talingchan', '13000', '0856789012', '00000005'),
('10000006', 'Phawnee', 'Charoensuk', '5566', 'Kho Kaen', 'Muang', 'Na Muang', '40000', '0867890123', '00000006'),
('10000007', 'Teerawat', 'Boonlert', '7788', 'Udon Thani', 'Muang', 'Na Kha', '41000', '0878901234', '00000007'),
('10000008', 'Noknay', 'Kanokwan', '9980', 'Nakhon Ratchasima', 'Muang', 'Suranaree', '30000', '0889012345', '00000008'),
('10000009', 'Orawan', 'Wonglert', '2233', 'Nakhon Ratchasima', 'Muang', 'Suranaree', '20150', '0890123456', '00000009'),
('10000010', 'Buranat', 'Wongsaa', '4455', 'Sabrabi', 'Muang', 'Nong Kae', '18000', '0881234567', '00000010');

```

```

• ⊖ CREATE TABLE Brand (
    Br_ID CHAR(8) NOT NULL,
    Br_Name NVARCHAR(30) NOT NULL,
    Br_FollowNum INT NOT NULL,
    Br_Logo NVARCHAR(1000) NOT NULL,
    Br_RecommendList NVARCHAR(30) NOT NULL,
    CONSTRAINT BrandID PRIMARY KEY (Br_ID)
);
• desc Brand;

```

```

INSERT INTO Brand (Br_ID, Br_Name, Br_FollowNum, Br_Logo, Br_RecommendList)
VALUES
('B0000001', 'BrandA', 2500, 'logoA.png', 'ProductA, ProductB'),
('B0000002', 'BrandB', 1900, 'logoB.png', 'ProductC, ProductD'),
('B0000003', 'BrandC', 3000, 'logoC.png', 'ProductE, ProductF'),
('B0000004', 'BrandD', 1500, 'logoD.png', 'ProductG, ProductH'),
('B0000005', 'BrandE', 2200, 'logoE.png', 'ProductI, ProductJ'),
('B0000006', 'BrandF', 2800, 'logoF.png', 'ProductK, ProductL'),
('B0000007', 'BrandG', 3500, 'logoG.png', 'ProductM, ProductN'),
('B0000008', 'BrandH', 2700, 'logoH.png', 'ProductO, ProductP'),
('B0000009', 'BrandI', 1800, 'logoI.png', 'ProductQ, ProductR'),
('B0000010', 'BrandJ', 2400, 'logoJ.png', 'ProductS, ProductT');

```

```

• ⊖ CREATE TABLE Feed (
    Feed_ID CHAR(8) NOT NULL,
    Feed_PostedDate DATE NOT NULL,
    Feed_Name NVARCHAR(30) NOT NULL,
    Feed_LikeNum INT,
    Feed_Category NVARCHAR(30) NOT NULL,
    Feed_Comment NVARCHAR(50),
    CONSTRAINT Feed_ID PRIMARY KEY (Feed_ID)
);
• desc Feed;

```

```

INSERT INTO Feed (Feed_ID, Feed_PostedDate, Feed_Name, Feed_LikeNum, Feed_Category, Feed_Comment)
VALUES
('F0000001', '2024-11-01', 'ProductA Launch', 500, 'Fashion', 'Excited about this launch!'),
('F0000002', '2024-11-02', 'Summer Collection', 300, 'Beauty', 'Perfect for the summer look!'),
('F0000003', '2024-11-03', 'Discounts on Skincare', 800, 'Skincare', 'Get the best deals on skincare'),
('F0000004', '2024-11-04', 'New Fragrance Collection', 450, 'Fragrance', 'Smell great with our new scents!'),
('F0000005', '2024-11-05', 'Makeup Essentials', 350, 'Makeup', 'Get your makeup essentials here!'),
('F0000006', '2024-11-06', 'Haircare Sale', 620, 'Haircare', 'Haircare sale! Don\'t miss out!'),
('F0000007', '2024-11-07', 'Beauty Bundle Offer', 550, 'Beauty', 'Amazing beauty bundle offer!'),
('F0000008', '2024-11-08', 'Exclusive Discounts', 400, 'Fashion', 'Get exclusive discounts now!'),
('F0000009', '2024-11-09', 'New Launch - Makeup Kit', 1000, 'Makeup', 'Try our new makeup kits today!'),
('F0000010', '2024-11-10', 'Gift Ideas for Her', 900, 'Gift Ideas', 'Perfect gifts for your loved ones!');

```

```

• ⊖ CREATE TABLE Content (
    Feed_ID CHAR(8) NOT NULL,
    Content_ID CHAR(8) NOT NULL,
    Content_Article NVARCHAR(100) NOT NULL,
    CONSTRAINT Content_ID PRIMARY KEY (Content_ID),
    CONSTRAINT ConFeed_ID FOREIGN KEY (Feed_ID)
        REFERENCES Feed(Feed_ID)
);
• desc Content;

```

```

INSERT INTO Content (Feed_ID, Content_ID, Content_Article)
VALUES
('F0000001', 'C0000001', 'This is an article about the new product launch.'),
('F0000002', 'C0000002', 'Our summer collection is designed to keep you cool.'),
('F0000003', 'C0000003', 'Read about the latest skincare tips to keep glowing.'),
('F0000004', 'C0000004', 'The new fragrance collection is here! Find your scent!'),
('F0000005', 'C0000005', 'Get the best makeup products for a perfect everyday look!'),
('F0000006', 'C0000006', 'Our haircare set helps you maintain smooth, silky hair!'),
('F0000007', 'C0000007', 'Introducing a beauty bundle for a complete look!'),
('F0000008', 'C0000008', 'Exclusive discounts just for you! Shop and save big!'),
('F0000009', 'C0000009', 'Our new makeup kits are perfect for every occasion!'),
('F0000010', 'C0000010', 'Looking for the perfect gift? We have many ideas!');


```

```
• Ⓜ CREATE TABLE VDO (
    Feed_ID CHAR(8) NOT NULL,
    VDO_ID CHAR(8) NOT NULL,
    VDO_Caption NVARCHAR(100),
    VDO_Duration TIME NOT NULL,
    CONSTRAINT VDODID PRIMARY KEY (VDO_ID),
    CONSTRAINT VD0Feed_ID FOREIGN KEY (Feed_ID)
        REFERENCES Feed(Feed_ID)
);
• desc VDO;
```

```
INSERT INTO VDO (Feed_ID, VDO_ID, VDO_Caption, VDO_Duration)
VALUES
('F0000001', 'V0000001', 'Brand A product launch video', '00:05:30'),
('F0000002', 'V0000002', 'Summer collection showcase video', '00:06:45'),
('F0000003', 'V0000003', 'Skincare routine tips video', '00:04:00'),
('F0000004', 'V0000004', 'Fragrance collection teaser video', '00:03:25'),
('F0000005', 'V0000005', 'Makeup tutorial for beginners video', '00:07:10'),
('F0000006', 'V0000006', 'How to use our new haircare products video', '00:06:20'),
('F0000007', 'V0000007', 'Unboxing our new beauty bundle video', '00:08:00'),
('F0000008', 'V0000008', 'Exclusive discount announcement video', '00:02:30'),
('F0000009', 'V0000009', 'Makeup kit review video', '00:05:50'),
('F0000010', 'V0000010', 'Gift ideas for her video', '00:04:15');
```

```
• ⊖ CREATE TABLE Likes (
    Feed_ID CHAR(8) NOT NULL,
    Acc_ID CHAR(8) NOT NULL,
    CONSTRAINT FeedID FOREIGN KEY (Feed_ID)
        REFERENCES Feed(Feed_ID),
    CONSTRAINT LikesAccID FOREIGN KEY (Acc_ID)
        REFERENCES Accounts(Acc_ID)
);
•   desc Likes;
```

```
INSERT INTO Likes (Feed_ID, Acc_ID)
VALUES
('F0000001', '00000001'),
('F0000001', '00000002'),
('F0000001', '00000003'),
('F0000002', '00000004'),
('F0000002', '00000005'),
('F0000002', '00000006'),
('F0000003', '00000007'),
('F0000003', '00000008'),
('F0000003', '00000009'),
('F0000004', '00000010'),
('F0000004', '00000011'),
('F0000004', '00000012'),
('F0000005', '00000001'),
('F0000005', '00000002'),
('F0000005', '00000003'),
('F0000006', '00000004'),
('F0000006', '00000005'),
('F0000006', '00000006'),
('F0000007', '00000007'),
('F0000007', '00000008'),
('F0000007', '00000009'),
('F0000008', '00000010'),
('F0000008', '00000011'),
('F0000008', '00000012'),
('F0000009', '00000001'),
('F0000009', '00000002'),
('F0000009', '00000003'),
('F0000010', '00000004'),
('F0000010', '00000005'),
('F0000010', '00000006');
```

```
• Ⓜ CREATE TABLE Follow (
    Br_ID CHAR(8) NOT NULL,
    Acc_ID CHAR(8) NOT NULL,
    CONSTRAINT BrandID FOREIGN KEY (Br_ID)
        REFERENCES Brand(Br_ID),
    CONSTRAINT FollAcc_ID FOREIGN KEY (Acc_ID)
        REFERENCES Accounts(Acc_ID)
);
• desc Follow;
```

```
INSERT INTO Follow (Br_ID, Acc_ID)
VALUES
('B0000001', '00000001'),
('B0000002', '00000002'),
('B0000003', '00000003'),
('B0000004', '00000004'),
('B0000005', '00000005'),
('B0000006', '00000006'),
('B0000007', '00000007'),
('B0000008', '00000008'),
('B0000009', '00000009'),
('B0000010', '00000010'),
('B0000009', '00000011'),
('B0000010', '00000012'),
('B0000001', '00000002'),
('B0000002', '00000003'),
('B0000003', '00000004'),
('B0000004', '00000005'),
('B0000005', '00000006'),
('B0000006', '00000007'),
('B0000007', '00000008'),
('B0000008', '00000009'),
('B0000009', '00000010'),
('B0000010', '00000011'),
('B0000001', '00000012'),
('B0000002', '00000001'),
('B0000001', '00000003'),
('B0000002', '00000005'),
('B0000003', '00000007'),
('B0000004', '00000009'),
('B0000005', '00000011');
```

```

• Ⓜ CREATE TABLE BrandPromotion (
    Promo_ID CHAR(8) NOT NULL,
    Promo_Offer NVARCHAR(100),
    Promo_Condition NVARCHAR(50) NOT NULL,
    Promo_SDate DATE NOT NULL,
    Promo_EDate DATE NOT NULL,
    Br_ID CHAR(8) NOT NULL,
    CONSTRAINT Promo_ID PRIMARY KEY (Promo_ID),
    CONSTRAINT PromoBrandID FOREIGN KEY (Br_ID)
    REFERENCES Brand(Br_ID)
);
• desc BrandPromotion;

```

```

INSERT INTO BrandPromotion (Promo_ID, Promo_Offer, Promo_Condition, Promo_SDate, Promo_EDate, Br_ID)
VALUES
('P0000001', 'Get 20% off on all products', 'Purchase over 1000 THB', '2024-11-01', '2024-11-30', 'B0000001'),
('P0000002', 'Buy 1, get 1 free on skincare', 'For all skincare products', '2024-11-02', '2024-11-25', 'B0000002'),
('P0000003', '10% off on your first order', 'New customers only', '2024-11-03', '2024-11-20', 'B0000003'),
('P0000004', 'Free shipping on orders above 500 THB', 'No minimum purchase required', '2024-11-04', '2024-11-15', 'B0000004'),
('P0000005', 'Get a free gift with every purchase', 'While stocks last', '2024-11-05', '2024-11-10', 'B0000005'),
('P0000006', '20% off for members', 'Valid for members only', '2024-11-06', '2024-11-20', 'B0000006'),
('P0000007', 'Exclusive bundle offer', 'Purchase all items in the bundle', '2024-11-07', '2024-11-25', 'B0000007'),
('P0000008', '30% off on all cosmetics', 'On selected cosmetics', '2024-11-08', '2024-11-30', 'B0000008'),
('P0000009', 'Flash sale: 50% off', 'For the first 100 customers', '2024-11-09', '2024-11-10', 'B0000009'),
('P0000010', '15% off on all makeup products', 'No minimum purchase required', '2024-11-10', '2024-11-30', 'B0000010');

```

```

• Ⓜ CREATE TABLE Product (
    Serial_Num CHAR(13) NOT NULL,
    PD_Name NVARCHAR(30) NOT NULL,
    PD_Detail NVARCHAR(300) NOT NULL,
    PD_OriginalPrice DECIMAL(12,2) NOT NULL,
    PD_HowToUse NVARCHAR(500) NOT NULL,
    PD_Review NVARCHAR(500),
    PD_QnA NVARCHAR(500),
    PD_Stock INT NOT NULL,
    Br_ID CHAR(8) NOT NULL,
    CONSTRAINT SerialNum PRIMARY KEY (Serial_Num),
    CONSTRAINT PDBrandID FOREIGN KEY (Br_ID)
    REFERENCES Brand(Br_ID)
);
• desc Product;

```

```

INSERT INTO Product (Serial_Num, PD_Name, PD_Detail, PD_OriginalPrice, PD_HowToUse, PD_Review, PD_QnA, PD_Stock, Br_ID)
VALUES
('S0000000001', 'ProductA', 'A high-quality skincare product', 500.00, 'Apply after cleansing', 'Great product for glowing skin!', 'Does this product suit sensitive skin?', 100, 'B0000001'),
('S0000000002', 'ProductB', 'Luxury fragrance for daily use', 1000.00, 'Spray on pulse points', 'Long-lasting fragrance', 'How long does the scent last?', 50, 'B0000002'),
('S0000000003', 'ProductC', 'Makeup kit for a natural look', 800.00, 'Apply on face and blend well', 'Perfect for daily use', 'Can I use this for sensitive skin?', 200, 'B0000003'),
('S0000000004', 'ProductD', 'Haircare set for smooth hair', 1200.00, 'Use daily after shower', 'Makes my hair smooth and shiny', 'Is this product sulfate-free?', 150, 'B0000004'),
('S0000000005', 'ProductE', 'Nutrient-rich hair mask', 750.00, 'Apply on hair for 15 minutes', 'Perfect for dry hair', 'How often should I use this mask?', 80, 'B0000005'),
('S0000000006', 'ProductF', 'Rejuvenating skincare set', 950.00, 'Use morning and night', 'Keeps my skin hydrated all day', 'Is this set good for aging skin?', 120, 'B0000006'),
('S0000000007', 'ProductG', 'Moisturizer for all skin types', 650.00, 'Apply generously after cleansing', 'Lightweight and absorbs quickly', 'Is this product non-comedogenic?', 200, 'B0000007'),
('S0000000008', 'ProductH', 'Gentle exfoliator for smooth skin', 400.00, 'Massage on damp skin, then rinse', 'Removes dead skin cells effectively', 'Can this exfoliator be used daily?', 100, 'B0000008'),
('S0000000009', 'ProductI', 'Brightening face serum', 900.00, 'Apply a few drops on face', 'Gives a bright and even complexion', 'Is this serum suitable for dark skin?', 75, 'B0000009'),
('S0000000010', 'ProductJ', 'Sunscreen for daily protection', 650.00, 'Apply before sun exposure', 'Protects skin from UV rays', 'How long does the protection last?', 250, 'B0000010');

```

SQL Queries

Query#1	List of feeds in beauty category which like less than 800												
Owner	6688045 Voralop Ketvaleevan												
Objective	To display feeds in beauty category which have less than 800 likes, including Feed ID, Name, Like, and Category												
Query	<pre>Select Feed_ID as 'ID', Feed_Name as 'Name', Feed_LikeNum as 'Like', Feed_Category as 'Category' FROM Feed WHERE Feed_Category = 'Beauty' AND Feed_LikeNum < 800;</pre>												
Result	<table border="1"> <thead> <tr> <th>ID</th> <th>Name</th> <th>Like</th> <th>Category</th> </tr> </thead> <tbody> <tr> <td>F0000002</td> <td>Summer Collection</td> <td>300</td> <td>Beauty</td> </tr> <tr> <td>F0000007</td> <td>Beauty Bundle Offer</td> <td>550</td> <td>Beauty</td> </tr> </tbody> </table>	ID	Name	Like	Category	F0000002	Summer Collection	300	Beauty	F0000007	Beauty Bundle Offer	550	Beauty
ID	Name	Like	Category										
F0000002	Summer Collection	300	Beauty										
F0000007	Beauty Bundle Offer	550	Beauty										

Query#2	List of products that their stock are between 100 and 150								
Owner	6688045 Voralop Ketvaleevan								
Objective	To display product name with serial number and their stocks that have products in stock between 100 and 150								
Query	<pre>SELECT CONCAT(PD_Name, ' - ', Serial_Num) AS Product, PD_Stock AS Stock FROM Product WHERE PD_Stock between 100 AND 150 ORDER BY Product;</pre>								
Result	<table border="1"> <thead> <tr> <th>Product</th> <th>Stock</th> </tr> </thead> <tbody> <tr> <td>ProductA - S00000000001</td> <td>100</td> </tr> <tr> <td>ProductD - S00000000004</td> <td>150</td> </tr> <tr> <td>ProductF - S00000000006</td> <td>120</td> </tr> </tbody> </table>	Product	Stock	ProductA - S00000000001	100	ProductD - S00000000004	150	ProductF - S00000000006	120
Product	Stock								
ProductA - S00000000001	100								
ProductD - S00000000004	150								
ProductF - S00000000006	120								

Query#3	List amount of people in Nakhon Ratchasima province				
Owner	6688045 Voralop Ketvaleevan				
Objective	To display amount of people in Nakhon Ratchasima province				
Query	<pre>SELECT ADD_Province AS Province, COUNT(*) AS People_Count FROM Address GROUP BY ADD_Province HAVING ADD_Province LIKE 'Nakhon Ratchasima';</pre>				
Result	<table border="1"> <thead> <tr> <th>Province</th> <th>People_Count</th> </tr> </thead> <tbody> <tr> <td>Nakhon Ratchasima</td> <td>2</td> </tr> </tbody> </table>	Province	People_Count	Nakhon Ratchasima	2
Province	People_Count				
Nakhon Ratchasima	2				

Query#4	List account which have 4 or more things in their shopping bag																																
Owner	6688045 Voralop Ketvaleevan																																
Objective	To display the quantity lists of shopping bag that equal or more than 4, including Account ID, Account Name, First name, Last name, Mobile Number, Name List and Price List																																
Query	<pre>SELECT Accounts.Acc_ID, Accounts.Acc_Nname, Accounts.Acc_Fname, Accounts.Acc_Lname, Accounts.Acc_MobileNum, ShoppingBag.NameList, ShoppingBag.PriceList, ShoppingBag.QuantityList FROM Accounts INNER JOIN ShoppingBag ON Accounts.Acc_ID = ShoppingBag.Acc_ID WHERE ShoppingBag.QuantityList >= 4;</pre>																																
Result	<table border="1"> <thead> <tr> <th>Acc_ID</th> <th>Acc_Nname</th> <th>Acc_Fname</th> <th>Acc_Lname</th> <th>Acc_MobileNum</th> <th>NameList</th> <th>PriceList</th> <th>QuantityList</th> </tr> </thead> <tbody> <tr> <td>00000004</td> <td>Mai</td> <td>Noknoy</td> <td>Thongchai</td> <td>0845678901</td> <td>Makeup Bundle D</td> <td>750.20</td> <td>4</td> </tr> <tr> <td>00000006</td> <td>Fon</td> <td>Phawinee</td> <td>Charoensuk</td> <td>0867890123</td> <td>Wellness Combo F</td> <td>500.00</td> <td>5</td> </tr> <tr> <td>00000008</td> <td>Nok</td> <td>Noknoy</td> <td>Kanokwan</td> <td>0889012345</td> <td>Travel Pack H</td> <td>300.45</td> <td>6</td> </tr> </tbody> </table>	Acc_ID	Acc_Nname	Acc_Fname	Acc_Lname	Acc_MobileNum	NameList	PriceList	QuantityList	00000004	Mai	Noknoy	Thongchai	0845678901	Makeup Bundle D	750.20	4	00000006	Fon	Phawinee	Charoensuk	0867890123	Wellness Combo F	500.00	5	00000008	Nok	Noknoy	Kanokwan	0889012345	Travel Pack H	300.45	6
Acc_ID	Acc_Nname	Acc_Fname	Acc_Lname	Acc_MobileNum	NameList	PriceList	QuantityList																										
00000004	Mai	Noknoy	Thongchai	0845678901	Makeup Bundle D	750.20	4																										
00000006	Fon	Phawinee	Charoensuk	0867890123	Wellness Combo F	500.00	5																										
00000008	Nok	Noknoy	Kanokwan	0889012345	Travel Pack H	300.45	6																										

Query#5	List of feeds with more than 500 likes and posted before 06/11/2024																												
Owner	6688045 Voralop Ketvaleevan																												
Objective	To display feeds that have number of likes more than 500 and posted before 06/11/2024, including FeedID, Feedname, Feedposteddate, number of likes for feed, Feed category, Feed comment, account ID																												
Query	<pre>SELECT Feed.Feed_ID, Feed.Feed_Name, Feed.Feed_PostedDate, Feed.Feed_LikeNum, Feed.Feed_Category, Feed.Feed_Comment, Likes.Acc_ID FROM Feed LEFT OUTER JOIN Likes ON Feed.Feed_ID = Likes.Feed_ID HAVING Feed.Feed_LikeNum > 500 AND Feed.Feed_PostedDate > '2024-11-06';</pre>																												
Result	<table border="1"> <thead> <tr> <th>Feed_ID</th><th>Feed_Name</th><th>Feed_PostedDate</th><th>Feed_LikeNum</th><th>Feed_Category</th><th>Feed_Comment</th><th>Acc_ID</th></tr> </thead> <tbody> <tr> <td>F0000007</td><td>Beauty Bundle Offer</td><td>2024-11-07</td><td>550</td><td>Beauty</td><td>Amazing beauty bundle offer!</td><td>00000007</td></tr> <tr> <td>F0000009</td><td>New Launch - Makeup Kit</td><td>2024-11-09</td><td>1000</td><td>Makeup</td><td>Try our new makeup kits today!</td><td>00000004</td></tr> <tr> <td>F0000010</td><td>Gift Ideas for Her</td><td>2024-11-10</td><td>900</td><td>Gift Ideas</td><td>Perfect gifts for your loved ones</td><td>00000007</td></tr> </tbody> </table>	Feed_ID	Feed_Name	Feed_PostedDate	Feed_LikeNum	Feed_Category	Feed_Comment	Acc_ID	F0000007	Beauty Bundle Offer	2024-11-07	550	Beauty	Amazing beauty bundle offer!	00000007	F0000009	New Launch - Makeup Kit	2024-11-09	1000	Makeup	Try our new makeup kits today!	00000004	F0000010	Gift Ideas for Her	2024-11-10	900	Gift Ideas	Perfect gifts for your loved ones	00000007
Feed_ID	Feed_Name	Feed_PostedDate	Feed_LikeNum	Feed_Category	Feed_Comment	Acc_ID																							
F0000007	Beauty Bundle Offer	2024-11-07	550	Beauty	Amazing beauty bundle offer!	00000007																							
F0000009	New Launch - Makeup Kit	2024-11-09	1000	Makeup	Try our new makeup kits today!	00000004																							
F0000010	Gift Ideas for Her	2024-11-10	900	Gift Ideas	Perfect gifts for your loved ones	00000007																							

Query#6	List of memberships that have 1000 to 2000 points															
Owner	6688084 Posawee Pirunamornpun															
Objective	To display membership IDs that their membership points are between 1000 to 2000 and their coins are under 10															
Query	<pre>SELECT Acc_ID AS 'ID', Mem_Point AS 'Point', Mem_Coin AS 'Coin' FROM Membership WHERE Mem_Point BETWEEN '1000' AND '2000' AND Mem_Coin < 10;</pre>															
Result	<table border="1"> <thead> <tr> <th>ID</th><th>Point</th><th>Coin</th></tr> </thead> <tbody> <tr> <td>00000002</td><td>1800.00</td><td>5</td></tr> <tr> <td>00000003</td><td>1200.30</td><td>7</td></tr> <tr> <td>00000005</td><td>1500.20</td><td>6</td></tr> <tr> <td>00000008</td><td>1900.00</td><td>9</td></tr> </tbody> </table>	ID	Point	Coin	00000002	1800.00	5	00000003	1200.30	7	00000005	1500.20	6	00000008	1900.00	9
ID	Point	Coin														
00000002	1800.00	5														
00000003	1200.30	7														
00000005	1500.20	6														
00000008	1900.00	9														

Query#7	List of discounted brand promotions which duration more than 15 days																												
Owner	6688084 Posawee Pirunamornpun																												
Objective	To show brand promotion that have discount in promotion offer and their conditions and the duration of promotion is more than 15 days with start and end date																												
Query	<pre>SELECT Br_ID AS Brand_ID, Promo_ID AS Promotion_ID, Promo_Offer AS Promotion_Offer, Promo_Condition AS Conditions, Promo_SDate AS Start_Date, Promo_EDate AS End_Date, DATEDIFF(Promo_EDate, Promo_SDate) AS Duration FROM BrandPromotion WHERE Promo_Offer LIKE '%0%' AND DATEDIFF(Promo_EDate, Promo_SDate) > 15;</pre>																												
Result	<table border="1"> <thead> <tr> <th>Brand_ID</th><th>Promotion_ID</th><th>Promotion_Offer</th><th>Conditions</th><th>Start_Date</th><th>End_Date</th><th>Duration</th></tr> </thead> <tbody> <tr> <td>B0000001</td><td>P0000001</td><td>Get 20% off on all products</td><td>Purchase over 1000 THB</td><td>2024-11-01</td><td>2024-11-30</td><td>29</td></tr> <tr> <td>B0000003</td><td>P0000003</td><td>10% off on your first order</td><td>New customers only</td><td>2024-11-03</td><td>2024-11-20</td><td>17</td></tr> <tr> <td>B0000008</td><td>P0000008</td><td>30% off on all cosmetics</td><td>On selected cosmetics</td><td>2024-11-08</td><td>2024-11-30</td><td>22</td></tr> </tbody> </table>	Brand_ID	Promotion_ID	Promotion_Offer	Conditions	Start_Date	End_Date	Duration	B0000001	P0000001	Get 20% off on all products	Purchase over 1000 THB	2024-11-01	2024-11-30	29	B0000003	P0000003	10% off on your first order	New customers only	2024-11-03	2024-11-20	17	B0000008	P0000008	30% off on all cosmetics	On selected cosmetics	2024-11-08	2024-11-30	22
Brand_ID	Promotion_ID	Promotion_Offer	Conditions	Start_Date	End_Date	Duration																							
B0000001	P0000001	Get 20% off on all products	Purchase over 1000 THB	2024-11-01	2024-11-30	29																							
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B0000008	P0000008	30% off on all cosmetics	On selected cosmetics	2024-11-08	2024-11-30	22																							

Query#8	List of promotions that duration within the condition																																													
Owner	6688084 Posawee Pirunamornpun																																													
Objective	To show promotions with durations between the minimum and maximum duration where the offers start between November 8–30 and end between November 8–30																																													
Query	<pre> SELECT Promo_ID AS Promotion_ID, Promo_Offer AS Offer, Promo_SDate AS Start_Date, Promo_EDate AS End_Date, DATEDIFF(Promo_EDate, Promo_SDate) AS Duration FROM BrandPromotion WHERE DATEDIFF(Promo_EDate, Promo_SDate) BETWEEN (SELECT MIN(DATEDIFF(Promo_EDate, Promo_SDate))) FROM BrandPromotion WHERE Promo_SDate BETWEEN '2024-11-08' AND '2024-11-30' AND Promo_EDate BETWEEN '2024-11-08' AND '2024-11-30') AND (SELECT MAX(DATEDIFF(Promo_EDate, Promo_SDate))) FROM BrandPromotion WHERE Promo_SDate BETWEEN '2024-11-08' AND '2024-11-30' AND Promo_EDate BETWEEN '2024-11-08' AND '2024-11-30') ORDER BY Promotion_ID, Offer; </pre>																																													
Result	<table border="1"> <thead> <tr> <th>Promotion_ID</th> <th>Offer</th> <th>Start_Date</th> <th>End_Date</th> <th>Duration</th> </tr> </thead> <tbody> <tr> <td>P0000003</td> <td>10% off on your first order</td> <td>2024-11-03</td> <td>2024-11-20</td> <td>17</td> </tr> <tr> <td>P0000004</td> <td>Free shipping on orders above 500 THB</td> <td>2024-11-04</td> <td>2024-11-15</td> <td>11</td> </tr> <tr> <td>P0000005</td> <td>Get a free gift with every purchase</td> <td>2024-11-05</td> <td>2024-11-10</td> <td>5</td> </tr> <tr> <td>P0000006</td> <td>20% off for members</td> <td>2024-11-06</td> <td>2024-11-20</td> <td>14</td> </tr> <tr> <td>P0000007</td> <td>Exclusive bundle offer</td> <td>2024-11-07</td> <td>2024-11-25</td> <td>18</td> </tr> <tr> <td>P0000008</td> <td>30% off on all cosmetics</td> <td>2024-11-08</td> <td>2024-11-30</td> <td>22</td> </tr> <tr> <td>P0000009</td> <td>Flash sale: 50% off</td> <td>2024-11-09</td> <td>2024-11-10</td> <td>1</td> </tr> <tr> <td>P0000010</td> <td>15% off on all makeup products</td> <td>2024-11-10</td> <td>2024-11-30</td> <td>20</td> </tr> </tbody> </table>	Promotion_ID	Offer	Start_Date	End_Date	Duration	P0000003	10% off on your first order	2024-11-03	2024-11-20	17	P0000004	Free shipping on orders above 500 THB	2024-11-04	2024-11-15	11	P0000005	Get a free gift with every purchase	2024-11-05	2024-11-10	5	P0000006	20% off for members	2024-11-06	2024-11-20	14	P0000007	Exclusive bundle offer	2024-11-07	2024-11-25	18	P0000008	30% off on all cosmetics	2024-11-08	2024-11-30	22	P0000009	Flash sale: 50% off	2024-11-09	2024-11-10	1	P0000010	15% off on all makeup products	2024-11-10	2024-11-30	20
Promotion_ID	Offer	Start_Date	End_Date	Duration																																										
P0000003	10% off on your first order	2024-11-03	2024-11-20	17																																										
P0000004	Free shipping on orders above 500 THB	2024-11-04	2024-11-15	11																																										
P0000005	Get a free gift with every purchase	2024-11-05	2024-11-10	5																																										
P0000006	20% off for members	2024-11-06	2024-11-20	14																																										
P0000007	Exclusive bundle offer	2024-11-07	2024-11-25	18																																										
P0000008	30% off on all cosmetics	2024-11-08	2024-11-30	22																																										
P0000009	Flash sale: 50% off	2024-11-09	2024-11-10	1																																										
P0000010	15% off on all makeup products	2024-11-10	2024-11-30	20																																										

Query#9	List of address which postal code start with 1																																								
Owner	6688084 Posawee Pirunamornpun																																								
Objective	To show account id that have postal code start with 1, including Account ID, Name, First Name, Last Name, Mobile number, Address number, Province, District, and SubDistrict																																								
Query	<pre> SELECT Accounts.Acc_ID, Accounts.Acc_Nname, Accounts.Acc_Fname, Accounts.Acc_Lname, Accounts.Acc_MobileNum, Address.ADD_NO, Address.ADD_Province, Address.ADD_District, Address.ADD_SubDistrict, Address.ADD_PostalCode FROM Accounts INNER JOIN Address ON Accounts.Acc_ID = Address.Acc_ID WHERE Address.ADD_PostalCode LIKE "1%";</pre>																																								
Result	<table border="1"> <thead> <tr> <th>Acc_ID</th><th>Acc_Nname</th><th>Acc_Fname</th><th>Acc_Lname</th><th>Acc_MobileNum</th><th>ADD_NO</th><th>ADD_Province</th><th>ADD_District</th><th>ADD_SubDistrict</th><th>ADD_PostalCode</th></tr> </thead> <tbody> <tr> <td>00000001</td><td>Chai</td><td>Somchai</td><td>Somsri</td><td>0912402040</td><td>1234</td><td>Bangkok</td><td>Sukhumvit</td><td>Phra Khanong</td><td>10110</td></tr> <tr> <td>00000005</td><td>Pong</td><td>Pongpat</td><td>Ratchada</td><td>0856789012</td><td>3344</td><td>Ayutthaya</td><td>Sena</td><td>Talingchan</td><td>13000</td></tr> <tr> <td>00000010</td><td>Ood</td><td>Jitpanyade</td><td>Panyajitde</td><td>0890124456</td><td>4455</td><td>Saraburi</td><td>Muang</td><td>Nong Kae</td><td>18000</td></tr> </tbody> </table>	Acc_ID	Acc_Nname	Acc_Fname	Acc_Lname	Acc_MobileNum	ADD_NO	ADD_Province	ADD_District	ADD_SubDistrict	ADD_PostalCode	00000001	Chai	Somchai	Somsri	0912402040	1234	Bangkok	Sukhumvit	Phra Khanong	10110	00000005	Pong	Pongpat	Ratchada	0856789012	3344	Ayutthaya	Sena	Talingchan	13000	00000010	Ood	Jitpanyade	Panyajitde	0890124456	4455	Saraburi	Muang	Nong Kae	18000
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Query#10	List of addresses of products in shopping bag																														
Owner	6688084 Posawee Pirunamornpun																														
Objective	To show addresses with products in shopping bag that postal code begin with 1, including First Name, Last Name, and Running Number																														
Query	<pre> SELECT ad.ADD_RunningNO, ad.ADD_Fname, ad.ADD_Lname, ad.ADD_PostalCode, sb.BagID, sb.NameList FROM Address ad LEFT OUTER JOIN ShoppingBag sb ON ad.Acc_ID = sb.Acc_ID WHERE ad.ADD_PostalCode LIKE "1%";</pre>																														
Result	<table border="1"> <thead> <tr> <th>ADD_RunningNO</th><th>ADD_Fname</th><th>ADD_Lname</th><th>ADD_PostalCode</th><th>BagID</th><th>NameList</th></tr> </thead> <tbody> <tr> <td>10000001</td><td>Somchai</td><td>Somsri</td><td>10110</td><td>00000001</td><td>Cosmetic Set A</td></tr> <tr> <td>10000005</td><td>Pongpat</td><td>Ratchada</td><td>13000</td><td>00000005</td><td>Haircare Set E</td></tr> <tr> <td>10000010</td><td>Buranat</td><td>Wongsa</td><td>18000</td><td>00000010</td><td>Fragrance Set J</td></tr> <tr> <td>10000010</td><td>Buranat</td><td>Wongsa</td><td>18000</td><td>00000013</td><td>Fragrance Set O</td></tr> </tbody> </table>	ADD_RunningNO	ADD_Fname	ADD_Lname	ADD_PostalCode	BagID	NameList	10000001	Somchai	Somsri	10110	00000001	Cosmetic Set A	10000005	Pongpat	Ratchada	13000	00000005	Haircare Set E	10000010	Buranat	Wongsa	18000	00000010	Fragrance Set J	10000010	Buranat	Wongsa	18000	00000013	Fragrance Set O
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10000010	Buranat	Wongsa	18000	00000010	Fragrance Set J																										
10000010	Buranat	Wongsa	18000	00000013	Fragrance Set O																										

Query#11	List of membership card name and their coins																																													
Owner	6688098 Thanakit Rattikanchalakorn																																													
Objective	To show accounts that their membership coins are less than average coins of the accounts that are female, including first name, last name, their member card name and their membership coins																																													
Query	<pre> SELECT a.Acc_ID, a.Acc_Fname, a.Acc_Lname, m.Mem_CardName, m.Mem_Coin FROM Accounts a LEFT OUTER JOIN Membership m ON a.Acc_ID = m.Acc_ID WHERE m.Mem_Coin < (SELECT AVG(m.Mem_Coin) FROM Accounts a LEFT OUTER JOIN Membership m ON a.Acc_ID = m.Acc_ID WHERE a.Acc_Gender LIKE "F"); </pre>																																													
Result	<table border="1"> <thead> <tr> <th>Acc_ID</th><th>Acc_Fname</th><th>Acc_Lname</th><th>Mem_CardName</th><th>Mem_Coin</th></tr> </thead> <tbody> <tr> <td>00000001</td><td>Somchai</td><td>Somsri</td><td>CardA</td><td>10</td></tr> <tr> <td>00000002</td><td>Somsak</td><td>Somsri</td><td>CardB</td><td>5</td></tr> <tr> <td>00000003</td><td>Ananya</td><td>Siri</td><td>CardC</td><td>7</td></tr> <tr> <td>00000005</td><td>Pongpat</td><td>Ratchada</td><td>CardE</td><td>6</td></tr> <tr> <td>00000006</td><td>Phawinee</td><td>Charoensuk</td><td>CardF</td><td>8</td></tr> <tr> <td>00000008</td><td>Noknoy</td><td>Kanokwan</td><td>CardH</td><td>9</td></tr> <tr> <td>00000010</td><td>Jitpanyade</td><td>Panyajitde</td><td>CardJ</td><td>10</td></tr> <tr> <td>00000011</td><td>Buranat</td><td>Wongsa</td><td>CardK</td><td>10</td></tr> </tbody> </table>	Acc_ID	Acc_Fname	Acc_Lname	Mem_CardName	Mem_Coin	00000001	Somchai	Somsri	CardA	10	00000002	Somsak	Somsri	CardB	5	00000003	Ananya	Siri	CardC	7	00000005	Pongpat	Ratchada	CardE	6	00000006	Phawinee	Charoensuk	CardF	8	00000008	Noknoy	Kanokwan	CardH	9	00000010	Jitpanyade	Panyajitde	CardJ	10	00000011	Buranat	Wongsa	CardK	10
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00000011	Buranat	Wongsa	CardK	10																																										

Query#12	List of promotion time, offers and their conditions																																																																		
Owner	6688098 Thanakit Rattikanchalakorn																																																																		
Objective	To show brand id, brand name with their promotion offer and conditions with duration time of promotion																																																																		
Query	<pre>SELECT Brand.Br_ID, Brand.Br_Name, BrandPromotion.Promo_Offer, BrandPromotion.Promo_Condition, BrandPromotion.Promo_SDate ,BrandPromotion.Promo_EDate FROM Brand INNER JOIN BrandPromotion ON Brand.Br_ID = BrandPromotion.Br_ID;</pre>																																																																		
Result	<table border="1"> <thead> <tr> <th>Br_ID</th><th>Br_Name</th><th>Promo_Offer</th><th>Promo_Condition</th><th>Promo_SDate</th><th>Promo_EDate</th></tr> </thead> <tbody> <tr> <td>B0000001</td><td>BrandA</td><td>Get 20% off on all products</td><td>Purchase over 1000 THB</td><td>2024-11-01</td><td>2024-11-30</td></tr> <tr> <td>B0000002</td><td>BrandB</td><td>Buy 1, get 1 free on skincare</td><td>For all skincare products</td><td>2024-11-02</td><td>2024-11-25</td></tr> <tr> <td>B0000003</td><td>BrandC</td><td>10% off on your first order</td><td>New customers only</td><td>2024-11-03</td><td>2024-11-20</td></tr> <tr> <td>B0000004</td><td>BrandD</td><td>Free shipping on orders above 500 THB</td><td>No minimum purchase required</td><td>2024-11-04</td><td>2024-11-15</td></tr> <tr> <td>B0000005</td><td>BrandE</td><td>Get a free gift with every purchase</td><td>While stocks last</td><td>2024-11-05</td><td>2024-11-10</td></tr> <tr> <td>B0000006</td><td>BrandF</td><td>20% off for members</td><td>Valid for members only</td><td>2024-11-06</td><td>2024-11-20</td></tr> <tr> <td>B0000007</td><td>BrandG</td><td>Exclusive bundle offer</td><td>Purchase all items in the bundle</td><td>2024-11-07</td><td>2024-11-25</td></tr> <tr> <td>B0000008</td><td>BrandH</td><td>30% off on all cosmetics</td><td>On selected cosmetics</td><td>2024-11-08</td><td>2024-11-30</td></tr> <tr> <td>B0000009</td><td>BrandI</td><td>Flash sale: 50% off</td><td>For the first 100 customers</td><td>2024-11-09</td><td>2024-11-10</td></tr> <tr> <td>B0000010</td><td>BrandJ</td><td>15% off on all makeup products</td><td>No minimum purchase required</td><td>2024-11-10</td><td>2024-11-30</td></tr> </tbody> </table>	Br_ID	Br_Name	Promo_Offer	Promo_Condition	Promo_SDate	Promo_EDate	B0000001	BrandA	Get 20% off on all products	Purchase over 1000 THB	2024-11-01	2024-11-30	B0000002	BrandB	Buy 1, get 1 free on skincare	For all skincare products	2024-11-02	2024-11-25	B0000003	BrandC	10% off on your first order	New customers only	2024-11-03	2024-11-20	B0000004	BrandD	Free shipping on orders above 500 THB	No minimum purchase required	2024-11-04	2024-11-15	B0000005	BrandE	Get a free gift with every purchase	While stocks last	2024-11-05	2024-11-10	B0000006	BrandF	20% off for members	Valid for members only	2024-11-06	2024-11-20	B0000007	BrandG	Exclusive bundle offer	Purchase all items in the bundle	2024-11-07	2024-11-25	B0000008	BrandH	30% off on all cosmetics	On selected cosmetics	2024-11-08	2024-11-30	B0000009	BrandI	Flash sale: 50% off	For the first 100 customers	2024-11-09	2024-11-10	B0000010	BrandJ	15% off on all makeup products	No minimum purchase required	2024-11-10	2024-11-30
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B0000010	BrandJ	15% off on all makeup products	No minimum purchase required	2024-11-10	2024-11-30																																																														

Query#13	List of price which less than average price product that related to skincare and their amount of product								
Owner	6688098 Thanakit Rattikanchalakorn								
Objective	To show amount of products that their price are less than the average price of the product which their detail include the word “skincare” order from the highest price to the lowest								
Query	<pre>SELECT PD_OriginalPrice, COUNT(*) AS Total FROM Product GROUP BY PD_OriginalPrice HAVING PD_OriginalPrice < (SELECT AVG(PD_OriginalPrice) AS AVGPrice FROM Product WHERE PD_Detail LIKE "%skincare%") ORDER BY PD_OriginalPrice desc;</pre>								
Result	<table border="1"> <thead> <tr> <th>PD_OriginalPrice</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>650.00</td> <td>2</td> </tr> <tr> <td>500.00</td> <td>1</td> </tr> <tr> <td>400.00</td> <td>1</td> </tr> </tbody> </table>	PD_OriginalPrice	Total	650.00	2	500.00	1	400.00	1
PD_OriginalPrice	Total								
650.00	2								
500.00	1								
400.00	1								

Query#14	List of feed that posted between 3 November and 8 November 2024														
Owner	6688098 Thanakit Rattikanchalakorn														
Objective	To show a list of feed IDs and their posting dates for feeds posted between November 3, 2024 and November 8, 2024														
Query	<pre>SELECT CONCAT(Feed_Category, '_', Feed_ID) AS Feed, Feed_PostedDate AS Posted_Date FROM Feed WHERE Feed_PostedDate between '2024-11-03' AND '2024-11-08';</pre>														
Result	<table border="1"> <thead> <tr> <th>Feed</th><th>Posted_Date</th></tr> </thead> <tbody> <tr> <td>Skincare_F0000003</td><td>2024-11-03</td></tr> <tr> <td>Fragrance_F0000004</td><td>2024-11-04</td></tr> <tr> <td>Makeup_F0000005</td><td>2024-11-05</td></tr> <tr> <td>Haircare_F0000006</td><td>2024-11-06</td></tr> <tr> <td>Beauty_F0000007</td><td>2024-11-07</td></tr> <tr> <td>Fashion_F0000008</td><td>2024-11-08</td></tr> </tbody> </table>	Feed	Posted_Date	Skincare_F0000003	2024-11-03	Fragrance_F0000004	2024-11-04	Makeup_F0000005	2024-11-05	Haircare_F0000006	2024-11-06	Beauty_F0000007	2024-11-07	Fashion_F0000008	2024-11-08
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Haircare_F0000006	2024-11-06														
Beauty_F0000007	2024-11-07														
Fashion_F0000008	2024-11-08														

Query#15	List of brands that have followers more than 2,500 and their ID,Name,number of followers and PNG logo																								
Owner	6688098 Thanakit Rattikanchalakorn																								
Objective	To show brands with fewer than 2,500 followers and a PNG logo, including IDs, Name, Number of followers.																								
Query	<pre>SELECT Br_ID as 'ID' , Br_Name as 'Name' , Br_FollowNum as 'FollowNumber' , Br_Logo as 'Logo' FROM Brand WHERE Br_FollowNum < 2500 AND Br_Logo LIKE '%.png%';</pre>																								
Result	<table border="1"> <thead> <tr> <th>ID</th> <th>Name</th> <th>FollowNumber</th> <th>Logo</th> </tr> </thead> <tbody> <tr> <td>B0000002</td> <td>BrandB</td> <td>1900</td> <td>logoB.png</td> </tr> <tr> <td>B0000004</td> <td>BrandD</td> <td>1500</td> <td>logoD.png</td> </tr> <tr> <td>B0000005</td> <td>BrandE</td> <td>2200</td> <td>logoE.png</td> </tr> <tr> <td>B0000009</td> <td>BrandI</td> <td>1800</td> <td>logol.png</td> </tr> <tr> <td>B0000010</td> <td>BrandJ</td> <td>2400</td> <td>logoJ.png</td> </tr> </tbody> </table>	ID	Name	FollowNumber	Logo	B0000002	BrandB	1900	logoB.png	B0000004	BrandD	1500	logoD.png	B0000005	BrandE	2200	logoE.png	B0000009	BrandI	1800	logol.png	B0000010	BrandJ	2400	logoJ.png
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B0000005	BrandE	2200	logoE.png																						
B0000009	BrandI	1800	logol.png																						
B0000010	BrandJ	2400	logoJ.png																						

Query#16	List of accounts that membership points are more than the average membership points that have at least 10 coins															
Owner	6688104 Phubase Sangliamthong															
Objective	To show the account ID, first name, last name, membership card name, and membership points of accounts whose membership points are greater than the average membership points of members who have at least 10 coins.															
Query	<pre>SELECT a.Acc_ID, a.Acc_Fname, a.Acc_Lname, m.Mem_CardName, m.Mem_Point FROM Accounts a LEFT OUTER JOIN Membership m ON a.Acc_ID = m.Acc_ID WHERE m.Mem_Point > (SELECT AVG(m.Mem_Point) FROM Membership m WHERE m.Mem_Coin >= 10);</pre>															
Result	<table border="1"> <thead> <tr> <th>Acc_ID</th><th>Acc_Fname</th><th>Acc_Lname</th><th>Mem_CardName</th><th>Mem_Point</th></tr> </thead> <tbody> <tr> <td>00000004</td><td>Noknoy</td><td>Thongchai</td><td>CardD</td><td>3000.75</td></tr> <tr> <td>00000009</td><td>Orawan</td><td>Wonglert</td><td>CardI</td><td>3500.45</td></tr> </tbody> </table>	Acc_ID	Acc_Fname	Acc_Lname	Mem_CardName	Mem_Point	00000004	Noknoy	Thongchai	CardD	3000.75	00000009	Orawan	Wonglert	CardI	3500.45
Acc_ID	Acc_Fname	Acc_Lname	Mem_CardName	Mem_Point												
00000004	Noknoy	Thongchai	CardD	3000.75												
00000009	Orawan	Wonglert	CardI	3500.45												

Query#17	List of VDO which has duration more than 4 minutes and 15 seconds																																																								
Owner	6688104 Phubase Sangliamthong																																																								
Objective	To show the videos with durations greater than or equal to 4 minutes and 15 seconds, along with captions, duration, posted date, name, numbers of like, category, comments ordered by the most recent feed date.																																																								
Query	<pre>SELECT VDO.VDO_Caption, VDO.VDO_Duration, Feed.Feed_PostedDate, Feed.Feed_Name, Feed.Feed_LikeNum, Feed.Feed_Category, Feed.Feed_Comment FROM VDO INNER JOIN Feed ON VDO.Feed_ID = Feed.Feed_ID WHERE VDO.VDO_Duration >= '00:04:15' ORDER BY Feed.Feed_PostedDate DESC;</pre>																																																								
Result	<table border="1"> <thead> <tr> <th>VDO_Caption</th><th>VDO_Duration</th><th>Feed_PostedDate</th><th>Feed_Name</th><th>Feed_LikeNum</th><th>Feed_Category</th><th>Feed_Comment</th></tr> </thead> <tbody> <tr> <td>Gift ideas for her video</td><td>00:04:15</td><td>2024-11-10</td><td>Gift Ideas for Her</td><td>900</td><td>Gift Ideas</td><td>Perfect gifts for your loved ones</td></tr> <tr> <td>Makeup kit review video</td><td>00:05:50</td><td>2024-11-09</td><td>New Launch - Makeup Kit</td><td>1000</td><td>Makeup</td><td>Try our new makeup kits today!</td></tr> <tr> <td>Unboxing our new beauty bundle video</td><td>00:08:00</td><td>2024-11-07</td><td>Beauty Bundle Offer</td><td>550</td><td>Beauty</td><td>Amazing beauty bundle offer!</td></tr> <tr> <td>How to use our new haircare products video</td><td>00:06:20</td><td>2024-11-06</td><td>Haircare Sale</td><td>620</td><td>Haircare</td><td>Haircare sale! Don't miss out!</td></tr> <tr> <td>Makeup tutorial for beginners video</td><td>00:07:10</td><td>2024-11-05</td><td>Makeup Essentials</td><td>350</td><td>Makeup</td><td>Get your makeup essentials here</td></tr> <tr> <td>Summer collection showcase video</td><td>00:06:45</td><td>2024-11-02</td><td>Summer Collection</td><td>300</td><td>Beauty</td><td>Perfect for the summer look!</td></tr> <tr> <td>Brand A product launch video</td><td>00:05:30</td><td>2024-11-01</td><td>ProductA Launch</td><td>500</td><td>Fashion</td><td>Excited about this launch!</td></tr> </tbody> </table>	VDO_Caption	VDO_Duration	Feed_PostedDate	Feed_Name	Feed_LikeNum	Feed_Category	Feed_Comment	Gift ideas for her video	00:04:15	2024-11-10	Gift Ideas for Her	900	Gift Ideas	Perfect gifts for your loved ones	Makeup kit review video	00:05:50	2024-11-09	New Launch - Makeup Kit	1000	Makeup	Try our new makeup kits today!	Unboxing our new beauty bundle video	00:08:00	2024-11-07	Beauty Bundle Offer	550	Beauty	Amazing beauty bundle offer!	How to use our new haircare products video	00:06:20	2024-11-06	Haircare Sale	620	Haircare	Haircare sale! Don't miss out!	Makeup tutorial for beginners video	00:07:10	2024-11-05	Makeup Essentials	350	Makeup	Get your makeup essentials here	Summer collection showcase video	00:06:45	2024-11-02	Summer Collection	300	Beauty	Perfect for the summer look!	Brand A product launch video	00:05:30	2024-11-01	ProductA Launch	500	Fashion	Excited about this launch!
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Query#18	List of brand that have product in stock																																												
Owner	6688104 Phubase Sangliamthong																																												
Objective	To show a list of Brand ID, Serial Number, Product Name, and the minimum product stock group by brand and serial number, where the stock is greater than 0 ordered by stock in descending order.																																												
Query	<pre>SELECT Br_ID AS Brand_ID, Serial_Num AS Serial_Number ,PD_Name AS Product_Name, MIN(PD_Stock) AS Stock FROM Product GROUP BY Br_ID, Serial_Num HAVING MIN(PD_Stock) > 0 ORDER BY MIN(PD_Stock) desc;</pre>																																												
Result	<table border="1"> <thead> <tr> <th>Brand_ID</th><th>Serial_Number</th><th>Product_Name</th><th>Stock</th></tr> </thead> <tbody> <tr><td>B0000007</td><td>S000000000007</td><td>ProductG</td><td>300</td></tr> <tr><td>B0000010</td><td>S000000000010</td><td>ProductJ</td><td>250</td></tr> <tr><td>B0000003</td><td>S000000000003</td><td>ProductC</td><td>200</td></tr> <tr><td>B0000008</td><td>S000000000008</td><td>ProductH</td><td>180</td></tr> <tr><td>B0000004</td><td>S000000000004</td><td>ProductD</td><td>150</td></tr> <tr><td>B0000006</td><td>S000000000006</td><td>ProductF</td><td>120</td></tr> <tr><td>B0000001</td><td>S000000000001</td><td>ProductA</td><td>100</td></tr> <tr><td>B0000005</td><td>S000000000005</td><td>ProductE</td><td>80</td></tr> <tr><td>B0000009</td><td>S000000000009</td><td>ProductI</td><td>75</td></tr> <tr><td>B0000002</td><td>S000000000002</td><td>ProductB</td><td>50</td></tr> </tbody> </table>	Brand_ID	Serial_Number	Product_Name	Stock	B0000007	S000000000007	ProductG	300	B0000010	S000000000010	ProductJ	250	B0000003	S000000000003	ProductC	200	B0000008	S000000000008	ProductH	180	B0000004	S000000000004	ProductD	150	B0000006	S000000000006	ProductF	120	B0000001	S000000000001	ProductA	100	B0000005	S000000000005	ProductE	80	B0000009	S000000000009	ProductI	75	B0000002	S000000000002	ProductB	50
Brand_ID	Serial_Number	Product_Name	Stock																																										
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B0000002	S000000000002	ProductB	50																																										

Query#19	List of products related to hair															
Owner	6688104 Phubase Sangliamthong															
Objective	To show products related to hair, including their brand, serial number, product name in uppercase, detailed description, and price.															
Query	<pre> SELECT Br_ID AS Brand_ID, Serial_Num AS Serial_Number, UCASE(PD_Name) AS Product_Name, PD_Detail AS Product_Detail, PD_OriginalPrice AS Product_OriginalPrice FROM Product WHERE PD_Detail LIKE '%hair%'; </pre>															
Result	<table border="1"> <thead> <tr> <th>Brand_ID</th><th>Serial_Number</th><th>Product_Name</th><th>Product_Detail</th><th>Product_OriginalPri...</th></tr> </thead> <tbody> <tr> <td>B0000004</td><td>S000000000004</td><td>PRODUCTD</td><td>Haircare set for smooth hair</td><td>1200.00</td></tr> <tr> <td>B0000005</td><td>S000000000005</td><td>PRODUCTE</td><td>Nutrient-rich hair mask</td><td>750.00</td></tr> </tbody> </table>	Brand_ID	Serial_Number	Product_Name	Product_Detail	Product_OriginalPri...	B0000004	S000000000004	PRODUCTD	Haircare set for smooth hair	1200.00	B0000005	S000000000005	PRODUCTE	Nutrient-rich hair mask	750.00
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B0000004	S000000000004	PRODUCTD	Haircare set for smooth hair	1200.00												
B0000005	S000000000005	PRODUCTE	Nutrient-rich hair mask	750.00												

Query#20	List of account that live in district Muang and have 1234 in their phone number															
Owner	6688104 Phubase Sangliamthong															
Objective	To show account IDs, districts, and mobile numbers for 'Muang' district and numbers with '1234'.															
Query	<pre>SELECT Acc_ID, ADD_District, ADD_MobileNum FROM Address WHERE ADD_District = 'Muang' AND ADD_MobileNum LIKE '%1234%';</pre>															
Result	<table border="1"> <thead> <tr> <th>Acc_ID</th> <th>ADD_District</th> <th>ADD_MobileNum</th> </tr> </thead> <tbody> <tr> <td>00000007</td> <td>Muang</td> <td>0878901234</td> </tr> <tr> <td>00000008</td> <td>Muang</td> <td>0889012345</td> </tr> <tr> <td>00000009</td> <td>Muang</td> <td>0890123456</td> </tr> <tr> <td>00000010</td> <td>Muang</td> <td>0801234567</td> </tr> </tbody> </table>	Acc_ID	ADD_District	ADD_MobileNum	00000007	Muang	0878901234	00000008	Muang	0889012345	00000009	Muang	0890123456	00000010	Muang	0801234567
Acc_ID	ADD_District	ADD_MobileNum														
00000007	Muang	0878901234														
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00000010	Muang	0801234567														

Query#21	List of brands and products																																												
Owner	6688153 Chatrudee Yodsala																																												
Objective	To show brands with products, including brand ID, name, serial number of the product, and product name.																																												
Query	<pre>SELECT b.Br_ID, b.Br_Name, p.Serial_Num, p.PD_Name FROM Brand b LEFT OUTER JOIN Product p ON b.Br_ID = p.Br_ID;</pre>																																												
Result	<table border="1"> <thead> <tr> <th>Br_ID</th><th>Br_Name</th><th>Serial_Num</th><th>PD_Name</th></tr> </thead> <tbody> <tr><td>B0000001</td><td>BrandA</td><td>S000000000001</td><td>ProductA</td></tr> <tr><td>B0000002</td><td>BrandB</td><td>S000000000002</td><td>ProductB</td></tr> <tr><td>B0000003</td><td>BrandC</td><td>S000000000003</td><td>ProductC</td></tr> <tr><td>B0000004</td><td>BrandD</td><td>S000000000004</td><td>ProductD</td></tr> <tr><td>B0000005</td><td>BrandE</td><td>S000000000005</td><td>ProductE</td></tr> <tr><td>B0000006</td><td>BrandF</td><td>S000000000006</td><td>ProductF</td></tr> <tr><td>B0000007</td><td>BrandG</td><td>S000000000007</td><td>ProductG</td></tr> <tr><td>B0000008</td><td>BrandH</td><td>S000000000008</td><td>ProductH</td></tr> <tr><td>B0000009</td><td>BrandI</td><td>S000000000009</td><td>ProductI</td></tr> <tr><td>B0000010</td><td>BrandJ</td><td>S000000000010</td><td>ProductJ</td></tr> </tbody> </table>	Br_ID	Br_Name	Serial_Num	PD_Name	B0000001	BrandA	S000000000001	ProductA	B0000002	BrandB	S000000000002	ProductB	B0000003	BrandC	S000000000003	ProductC	B0000004	BrandD	S000000000004	ProductD	B0000005	BrandE	S000000000005	ProductE	B0000006	BrandF	S000000000006	ProductF	B0000007	BrandG	S000000000007	ProductG	B0000008	BrandH	S000000000008	ProductH	B0000009	BrandI	S000000000009	ProductI	B0000010	BrandJ	S000000000010	ProductJ
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B0000010	BrandJ	S000000000010	ProductJ																																										

Query#22	List of feed categories that have more than 500 likes in total for their content																																			
Owner	6688153 Chatrudee Yodsala																																			
Objective	To display categories with more than 500 likes for their feed, with the last date that posted, total likes, total comments, and total articles																																			
Query	<pre>SELECT Feed.Feed_Category, MAX(Feed.Feed_PostedDate) AS LatestPostedDate, SUM(Feed.Feed_LikeNum) AS TotalLikes, COUNT(Feed.Feed_Comment) AS TotalComments, COUNT(Content.Content_Article) AS ArticleCount FROM Content INNER JOIN Feed ON Content.Feed_ID = Feed.Feed_ID GROUP BY Feed.Feed_Category HAVING TotalLikes >= 500;</pre>																																			
Result	<table border="1"> <thead> <tr> <th>Feed_Category</th><th>LatestPostedDate</th><th>TotalLikes</th><th>TotalComments</th><th>ArticleCount</th></tr> </thead> <tbody> <tr> <td>Fashion</td><td>2024-11-08</td><td>900</td><td>2</td><td>2</td></tr> <tr> <td>Beauty</td><td>2024-11-07</td><td>850</td><td>2</td><td>2</td></tr> <tr> <td>Skincare</td><td>2024-11-03</td><td>800</td><td>1</td><td>1</td></tr> <tr> <td>Makeup</td><td>2024-11-09</td><td>1350</td><td>2</td><td>2</td></tr> <tr> <td>Haircare</td><td>2024-11-06</td><td>620</td><td>1</td><td>1</td></tr> <tr> <td>Gift Ideas</td><td>2024-11-10</td><td>900</td><td>1</td><td>1</td></tr> </tbody> </table>	Feed_Category	LatestPostedDate	TotalLikes	TotalComments	ArticleCount	Fashion	2024-11-08	900	2	2	Beauty	2024-11-07	850	2	2	Skincare	2024-11-03	800	1	1	Makeup	2024-11-09	1350	2	2	Haircare	2024-11-06	620	1	1	Gift Ideas	2024-11-10	900	1	1
Feed_Category	LatestPostedDate	TotalLikes	TotalComments	ArticleCount																																
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Query#23	List of top 3 brand with the most followers								
Owner	6688153 Chatrudee Yodsala								
Objective	To show the top 3 brands which have the most followers and order it including brand name and follow.								
Query	<pre>SELECT Br_Name ,MAX(Br_FollowNum) AS Follow FROM Brand GROUP BY Br_Name HAVING MAX(Br_FollowNum) ORDER BY MAX(Br_FollowNum) desc limit 3;</pre>								
Result	<table border="1"> <thead> <tr> <th>Br_Name</th> <th>Follow</th> </tr> </thead> <tbody> <tr> <td>BrandG</td> <td>3500</td> </tr> <tr> <td>BrandC</td> <td>3000</td> </tr> <tr> <td>BrandF</td> <td>2800</td> </tr> </tbody> </table>	Br_Name	Follow	BrandG	3500	BrandC	3000	BrandF	2800
Br_Name	Follow								
BrandG	3500								
BrandC	3000								
BrandF	2800								

Query#24	List of product in the bag that price between 100 to 500						
Owner	6688153 Chatrudee Yodsala						
Objective	To show shopping bag which have price list between 100 and 500 including Product in bag and price list						
Query	<pre>SELECT CONCAT(NameList, '_', BagID) AS ProductInBag, PriceList FROM ShoppingBag WHERE PriceList between '100' AND '500';</pre>						
Result	<table border="1"> <thead> <tr> <th>ProductInBag</th> <th>PriceList</th> </tr> </thead> <tbody> <tr> <td>Wellness Combo F_00000006</td> <td>500.00</td> </tr> <tr> <td>Travel Pack H_00000008</td> <td>300.45</td> </tr> </tbody> </table>	ProductInBag	PriceList	Wellness Combo F_00000006	500.00	Travel Pack H_00000008	300.45
ProductInBag	PriceList						
Wellness Combo F_00000006	500.00						
Travel Pack H_00000008	300.45						

Query#25	List of male users that use gmail																														
Owner	6688153 Chatrudee Yodsala																														
Objective	To show male users from the accounts table who use Gmail addresses including Account ID, First name, Last name, Gender, Email and Date of birth.																														
Query	<pre>Select Acc_ID as 'ID' , Acc_FName as 'Firstname' , Acc_LName as 'Lastname' , Acc_Gender as 'Gender' , Acc_Email as 'Email' , Acc_BirthDate as 'BirthDate' FROM Accounts WHERE Acc_Gender = 'M' AND Acc_Email LIKE '%@gmail.com%';</pre>																														
Result	<table border="1"> <thead> <tr> <th>ID</th><th>Firstname</th><th>Lastname</th><th>Gender</th><th>Email</th><th>BirthDate</th></tr> </thead> <tbody> <tr> <td>00000001</td><td>Somchai</td><td>Somsri</td><td>M</td><td>somchai@gmail.com</td><td>2004-11-02</td></tr> <tr> <td>00000002</td><td>Somsak</td><td>Somsri</td><td>M</td><td>nongsak@gmail.com</td><td>2002-05-14</td></tr> <tr> <td>00000005</td><td>Pongpat</td><td>Ratchada</td><td>M</td><td>pongpat.ratchada@gmail.com</td><td>2000-03-17</td></tr> <tr> <td>00000011</td><td>Buranat</td><td>Wongsa</td><td>M</td><td>beam@gmail.com</td><td>2000-12-25</td></tr> </tbody> </table>	ID	Firstname	Lastname	Gender	Email	BirthDate	00000001	Somchai	Somsri	M	somchai@gmail.com	2004-11-02	00000002	Somsak	Somsri	M	nongsak@gmail.com	2002-05-14	00000005	Pongpat	Ratchada	M	pongpat.ratchada@gmail.com	2000-03-17	00000011	Buranat	Wongsa	M	beam@gmail.com	2000-12-25
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00000002	Somsak	Somsri	M	nongsak@gmail.com	2002-05-14																										
00000005	Pongpat	Ratchada	M	pongpat.ratchada@gmail.com	2000-03-17																										
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References

- [1] K. P. T. Nation, “Eveandboy’s race to retail success,” *Nationthailand*, Apr. 21, 2021. [Online]. Available: <https://www.nationthailand.com/life/30333856>
- [2] N. Laithong, “พามาเมือง ‘EVEANDBOY’ อาณาจักรเครื่องสำอางเจ้าดังระดับประเทศ,” *อีสานอินไซท์*, Dec. 11, 2022. <https://isaninsight.kku.ac.th/archives/1883> (accessed Aug. 17, 2024).
- [3] “EVEANDBOY | เครื่องสำอางของแท้ทุกชิ้น No.1 beauty retailer in Thailand.” <https://www.eveandboy.com/info/about>(accessed Aug. 17, 2024).