ISOM 3260

Group 10

Progress Demonstration Report

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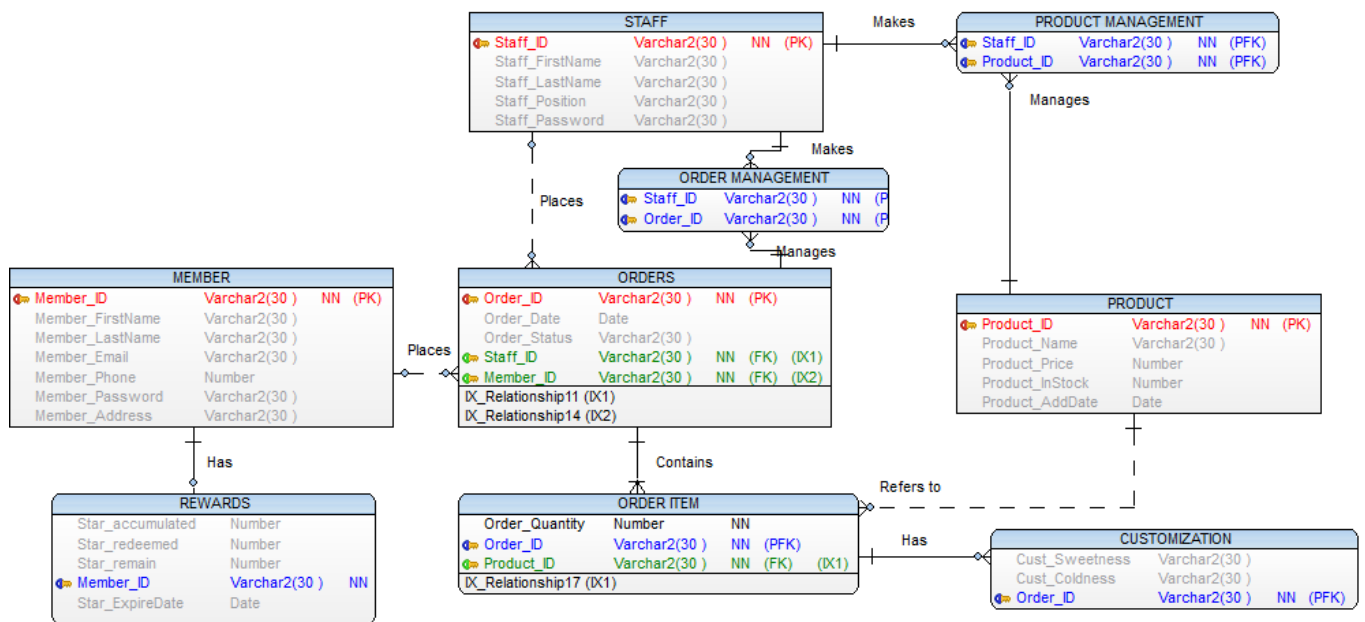*FONG, Kei Him*

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I . Conceptual data model

STAFF

Staff_ID	Varchar2(30)	NN (PK)
Staff_FirstName	Varchar2(30)	
Staff_LastName	Varchar2(30)	
Staff_Position	Varchar2(30)	
Staff_Password	Varchar2(30)	

Makes

PRODUCT MANAGEMENT

| Staff_ID | Varchar2(30) | NN (PFK) |
| Product_ID | Varchar2(30) | NN (PFK) |

Manages

Makes

ORDER MANAGEMENT

| Staff_ID | Varchar2(30) | NN (P |
| Order_ID | Varchar2(30) | NN (P |

Manages

Places

MEMBER

Member_ID	Varchar2(30)	NN (PK)
Member_FirstName	Varchar2(30)	
Member_LastName	Varchar2(30)	
Member_Email	Varchar2(30)	
Member_Phone	Number	
Member_Password	Varchar2(30)	
Member_Address	Varchar2(30)	

Places

ORDERS

Order_ID	Varchar2(30)	NN (PK)
Order_Date	Date	
Order_Status	Varchar2(30)	
Staff_ID	Varchar2(30)	NN (FK) (IX1)
Member_ID	Varchar2(30)	NN (FK) (IX2)
IX_Relationship11 (IX1)		
IX_Relationship14 (IX2)		

PRODUCT

Product_ID	Varchar2(30)	NN (PK)
Product_Name	Varchar2(30)	
Product_Price	Number	
Product_InStock	Number	
Product_AddDate	Date	

Has

REWARDS

Star_accumulated	Number	
Star_redeemed	Number	
Star_remain	Number	
Member_ID	Varchar2(30)	NN
Star_ExpireDate	Date	

Contains

ORDER ITEM

Order_Quantity	Number	NN
Order_ID	Varchar2(30)	NN (PFK)
Product_ID	Varchar2(30)	NN (FK) (IX1)
IX_Relationship17 (IX1)		

Refers to

Has

CUSTOMIZATION

Cust_Sweetness	Varchar2(30)	
Cust_Coldness	Varchar2(30)	
Order_ID	Varchar2(30)	NN (PFK)

TasteJava is a newly stablished coffee company, here is the E-R diagram for its database.

MEMBER is an entity storing information of its members. It includes Member_ID, Member_FirstName, Member_LastName, Member_Email, Member_Phone, Member_Password, Member_Address. When a customer places an order by himself, he needs to login using his unique member identity, or order without login and get a random ID with empty info in other attributes.

STAFF keeps information of Staff_ID, Staff_FirstName, Staff_LastName, Staff_Position, Staff_Password.

ORDERS is an entity storing information of Order_ID, Order_Date, Order_Status. The status of an order can be updated and managed by multiple staff. One staff may manage many orders. One member may place multiple orders and an order may be placed by one member or a staff.

An order contains at least one order item. ORDER_ITEM is a weak entity of ORDERS, it has an attribute of Order_Quantity which means the quantity of the specific product/order item. The order item refers to one corresponding product in the entity PRODUCT. A product may appear in many order item lists. ORDER_ITEM has a weak entity CUSTOMIZATION with Cust_Sweetness, Cust_Coldness. Order item may have many customizations.

PRODUCT contains Product_ID, Product_Name, Product_Price, Product_InStock, Product_AddDate. A staff may manage many products and a product may be managed by many staff.

Member can get rewards when he places an order and he can make redemption later. REWARDS is an entity to store information of registered member's rewards. It has Star_accumulated, Star_redeemed, Star_remain, Star_ExpireDate. It is the weak entity of MEMBER. A member may have 0 or 1 rewards information.

II. Data dictionary

Entity: MEMBER						
Attributes	Datatype	PK	FK	Length	Not Null	Description
Member_ID	Varchar2	✓		30	*TRUE*	Uniquely identifies Member
Member_FirstName	Varchar2			30	*FALSE*	First name of member
Member_LastName	Varchar2			30	*FALSE*	Last name of member
Member_Email	Varchar2			30	*FALSE*	Email of member
Member_Phone	Number				*FALSE*	Phone of member
Member_Password	Varchar2			30	*FALSE*	Password of member
Member_Address	Varchar2			30	*FALSE*	Address of member

Entity: ORDERS						
Attributes	Datatype	PK	FK	Length	Not Null	Description
Order_ID	Varchar2	✓		30	*TRUE*	Uniquely identifies order
Order_Date	Date				*FALSE*	Date when placing the order
Order_Status	Varchar2			30	*FALSE*	Status of order (in progress, finished, cancelled)
Staff_ID	Varchar2		✓	30	*TRUE*	Uniquely identifies staff
Member_ID	Varchar2		✓	30	*TRUE*	Uniquely identifies member

Entity: STAFF						
Attributes	Datatype	PK	FK	Length	Not Null	Description
Staff_ID	Varchar2	✓		30	*TRUE*	Uniquely identifies staff
Staff_FirstName	Varchar2			30	*FALSE*	First name of staff
Staff_LastName	Varchar2			30	*FALSE*	Last name of staff
Staff_Position	Varchar2			30	*FALSE*	Position title of staff (cashier, manager, coffee maker)
Staff_Password	Varchar2			30	*FALSE*	Password of staff

Entity: PRODUCT						
Attributes	Datatype	PK	FK	Length	Not Null	Description
Product_ID	Varchar2	✓		30	*TRUE*	Uniquely identifies product

Product_Name	Varchar2			30	*FALSE*	Name of product
Product_Price	Number				*FALSE*	Price of product
Product_InStock	Number				*FALSE*	Inventory of product
Product_AddDate	Date				*FALSE*	The date when the product is added to stock
Staff_ID	Varchar2		✓	30	*TRUE*	Uniquely identifies staff

Entity: ORDER ITEM						
Attributes	Datatype	PK	FK	Length	Not Null	Description
Order_Quantity	Number				*TRUE*	Quantity of the product ordered
Order_ID	Varchar2		✓	30	*TRUE*	Uniquely identifies order
Product_ID	Varchar2		✓	30	*TRUE*	Uniquely identifies product

Entity: CUSTOMIZATION						
Attributes	Datatype	PK	FK	Length	Not Null	Description
Cust_Sweetness	Varchar2			30	*FALSE*	Sweetness of ordered product
Cust_Coldness	Varchar2			30	*FALSE*	Coldness of ordered product
Order_ID	Varchar2		✓	30	*TRUE*	Uniquely identifies order

Entity: REWARDS						
Attributes	Datatype	PK	FK	Length	Not Null	Description
Star_accumulated	Number				*FALSE*	Total number of stars a member got
Star_redeemed	Number				*FALSE*	Stars that the member has redeemed
Star_remain	Number				*FALSE*	The balance of stars in the member's account
Member_ID	Varchar2		✓	30	*TRUE*	Uniquely identifies member
Star_ExpireDate	Date				*FALSE*	Date when stars expire

III. Functional Requirements

Staff (Cashier):

1.Allow staff to insert new product information.

2.Allow staff to update product information.

3.Allow staff to update order status for orders.

4.Allow staff to place order for customer.

5. Allow staff to conduct registration for members.

6. Allow staff to retrieve/reset the login password in case they have forgotten.