

# **ISOM 3260**

## **Progress Demonstration Report**

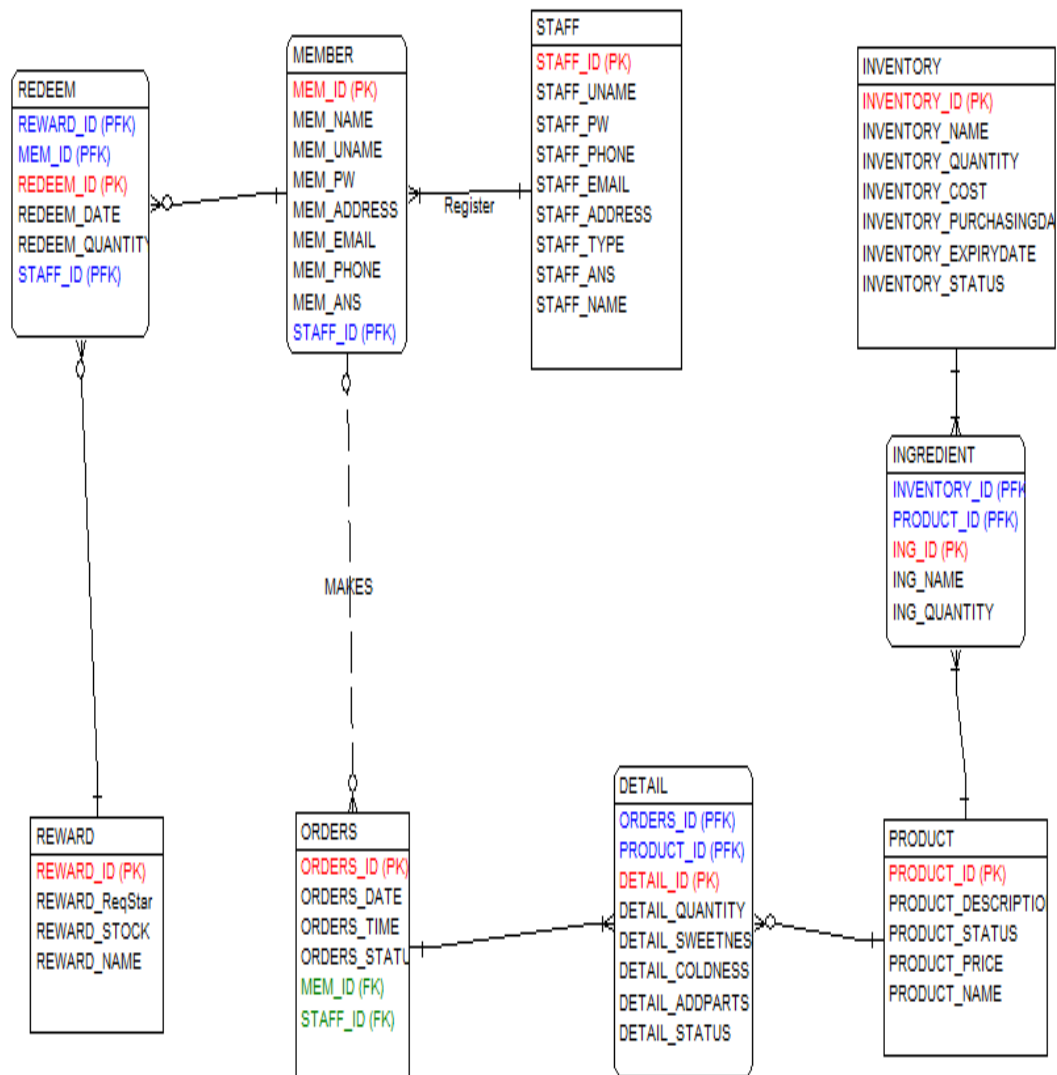
### **Group 305**

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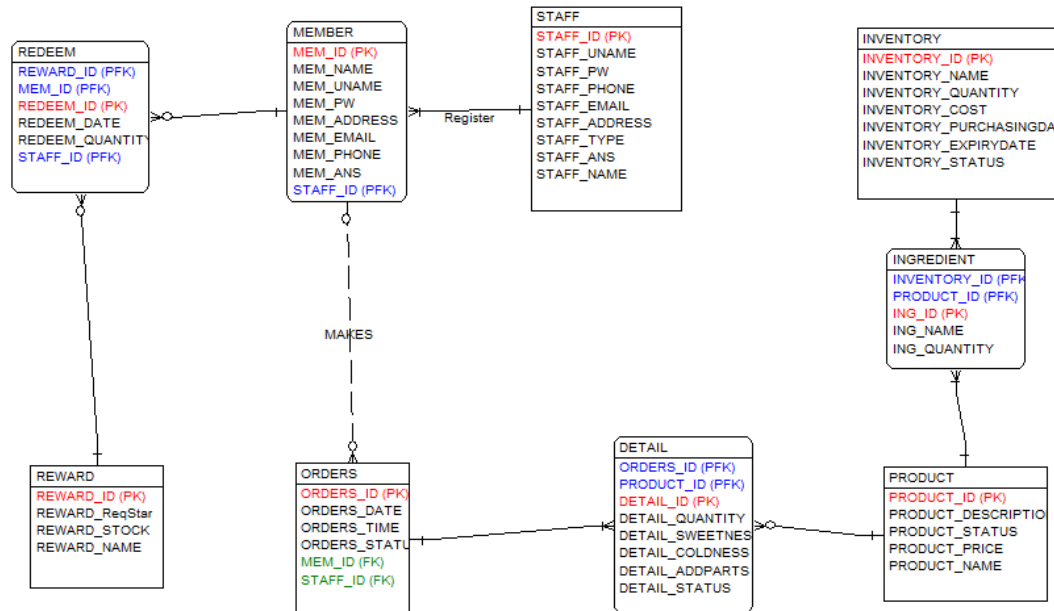
## 1.E-R Diagram

[1,1]

[2,1]



[1,1]



UST FRESH TEA is a tawainness drink shop. Member and staff are the two major components of its success.

Members have MEM\_ID, MEM\_NAME, MEM\_NAME, MEM\_PW, MEM\_PW, MEM\_ADDRESS, MEM\_EMAIL, MEM\_PHONE, MEM\_ANS (answer for safety question).

Member can make as many orders as possible. Members can also make no orders at all. Orders have ORDER\_ID, ORDER\_DATE, ORDER\_TIME and ODER\_STATUS, and MEM\_ID as of storing corresponding member who makes the order. Each order belongs to one and only one customer. Each order can contain many products, but there must be at least one product in each order. Some drinks may be unpopular among customer and thus are not added in any DETAIL or ORDERS at all.

Based on our customer loyalty strategy, each member could redeem or not redeem any reward. One redeem record belongs to one member only. REDEEM is a associate entity linking MEMBER and REWARD. REWARD stores the gift that could be redeemed by member including REWARD\_ID, REWARD\_ReqStar, REWARD\_STOCK, REWARD\_NAME. Each member could only redeem one reward each time, while populated gift could be redeemed by many member.

Each Order has at least one DETAIL, which stores the information of drink that ordered by member. Each Detail belongs to one and only one orders. DETAIL has the following attribute: DETAIL\_ID, DETAIL\_QUANTITY, DETAIL\_SWEETNESS, DETAIL\_COLDNESS, DETAIL\_STATUS. EACH DETAIL belongs to one product. And, one product can belong to zero to many detail.

Product have PRODUCT\_ID, PRODUCT\_DESCRIPTION, PRODUCT\_STATUS, PRODUCT\_PRICE, PRODUCT\_NAME.

INGREDIENT is stored as a separate entity to indicate each ingredients in each product, with ING\_ID, ING\_NAME, ING\_QUANTITY. INVENTORY have the attributes of INVENTORY\_ID, INVENTORY\_QUANTITY, INVENTORY\_COST, INVENTORY\_STATUS. INGREDIENT could belong to one inventory and inventory could belong to many ingredients.

## 2.Data Dictionary

**Entity: DETAIL**

Attributes	Datatype	PK	FK	Length	NULL	Description
ORDERS_ID	NUMBER		✓(PFK)	20,0	FALSE	Unique identifies order
PRODUCT_ID	NUMBER		✓(PFK)	20,0	FALSE	Unique identifies product
<u>DETAIL_ID</u>	NUMBER	✓		20,0	FALSE	Unique identifies detail
DETAIL_QUANTITY	NUMBER			10,0	FALSE	Number of drink per detail
DETAIL_SWEETNESS	VARCHAR2			20	TRUE	Sweetness of a drink
DETAIL_COLDNESS	VARCHAR2			20	TRUE	Coldness of a drink
DETAIL_ADDPARTS	VARCHAR2			20	TRUE	Extra topping of drink in a detail
DETAIL_STATUS	VARCHAR2			30	FALSE	Production stage of drink in a detail
DETAIL_TEMPERATURE	VARCHAR2			20	TRUE	Temperature of drink in a detail

**Entity: INGREDIENT**

Attributes	Datatype	PK	FK	Length	NULL	Description
INVENTORY_ID	NUMBER		✓	20	FALSE	Uniquely identifies inventory
PRODUCT_ID	NUMBER		✓	20	FALSE	Uniquely identifies product
<u>ING_ID</u>	NUMBER	✓		20	FALSE	Uniquely identifies ingredient

ING_NAME	VARCHAR 2			30	FALSE	Quantity of a ingredient
ING_QUANTITY	VARCHAR 2			10	FALSE	Quantity of a ingredient needed for preparing a drink

Entity: INVENTORY						
Attributes	Datatype	PK	FK	Length	NULL	Description
<u>INVENTORY_ID</u>	NUMBER	✓		20	FALSE	Uniquely identifies inventory
INVENTORY_NAME	VARCHAR2			30	FALSE	Name of inventory
INVENTORY_QUANTITY	NUMBER			20	FALSE	Quantity of inventory
INVENTORY_COST	NUMBER			20,2	TRUE	Unit cost of a inventory
INVENTORY_STATUS	VARCHAR2			20	TRUE	Availability of inventory

**Entity: MEMBER**

Attributes	Datatype	PK	FK	Length	NULL	Description
<u>MEM_ID</u>	NUMBER	✓		20	FALSE	Uniquely identifies member
MEM_NAME	VARCHAR2			30	FALSE	Name of member
MEM_UNAME	VARCHAR2			20	FALSE	Username of member
MEM_PW	VARCHAR2			20	FALSE	Password
MEM_ADDRESS	VARCHAR2			100	TRUE	Mailing address of member
MEM_EMAIL	VARCHAR2			50	TRUE	Email of member
MEM_PHONE	VARCHAR2			20	FALSE	Phone number of member
MEM_ANS	VARCHAR2			50	FALSE	Answer of safety question when he forgets password

**Entity: ORDERS**

Attributes	Datatype	PK	FK	Length	NULL	Description
<u>ORDERS_ID</u>	Number	✓		20,0	FALSE	Uniquely identifies order
ORDERS_DATE	Date			20	FALSE	Date when the order is placed
ORDERS_TIME	Timestamp with local time			6 11	FALSE	Time when the order is placed

	zone					
ORDERS_STATU S	Varchar2			30	FALSE	Show whether the order is processing/completed
MEM_ID	Number		✓	20,0	FALSE	Uniquely identifies member. It shows which member places which order.

**Entity: PRODUCT**

Attributes	Datatype	PK	FK	Length	NULL	Description
<u>PRODUCT_ID</u>	Number	✓		20,0	FALSE	Uniquely identifies product
PRODUCT_DESC RIPTION	Varchar2			100	TRUE	Brief description of each product
PRODUCT_STAT US	Varchar2			20	TRUE	Show the availability of each product
PRODUCT_PRICE	Number			5,2	FALSE	Price of each product
PRODUCT_NAME	Varchar2			30	FALSE	Name of each product
PRODUCT_TYPE	Varchar2			20	FALSE	Category of the product belongs to

**Entity: REDEEM**

Attributes	Datatype	PK	FK	Length	NULL	Description
<u>REDEEM_ID</u>	Number	✓		20,0	FALSE	Uniquely identifies redeem
MEM_ID	Number		✓	20,0	FALSE	Uniquely identifies member. It shows which member redeems prize



REWARD_ID	Number		✓	20,0	FALSE	Uniquely identifies reward. It shows member redeems which reward
REDEEM_DATE	Date				FALSE	It shows the redeem date
REDEEM_QUANTITY	Number			10,0	FALSE	It shows how many gifts member has redeemed

#### Entity: REWARD

Attributes	Datatype	PK	FK	Length	NULL	Description
<u>REWARD_ID</u>	Number	✓		20,0	FALSE	Uniquely identifies reward
REWARD_ReqStar	Number			10,0	FALSE	It shows how many stars are required for each prize
REWARD_STOCK	Number			30,0	FALSE	It shows the quantity of available prize.
REWARD_NAME	Varchar2			20,0	FALSE	It shows the name of the reward

#### Entity: STAFF

Attributes	Datatype	PK	FK	Length	NULL	Description
<u>STAFF_ID</u>	Number	✓		20		Uniquely identifies staff
MEM_ID	Number		✓	20		Uniquely identifies which member account is register by this staff
STAFF_UNAME	VARCHAR2			50	FALSE	Username of staff
STAFF_PW	Number			38		Password of staff
STAFF_PHONE				30		Phone number of staff

STAFF_EMAIL	VARCHAR2			100		Email of staff
STAFF_ADDRESS	VARCHAR2			200		Mailing address of staff
STAFF_TYPE	VARCHAR2			20		The job position of staff
STAFF_ANS	VARCHAR2			30		Answer of safety question when he forgets password
STAFF_NAME	VARCHAR2			50	FALSE	Name of staff

### **3.Functional Requirement**

Staffs:

1. Allow staffs to login
2. Allow staffs to retrieve password
3. Allow staffs to make orders
4. Allow staffs to help customers redeem rewards
5. Allow staffs to help customers register as a member
6. Allow staffs to help customers retrieve password
7. Allow staffs to edit product lists

