

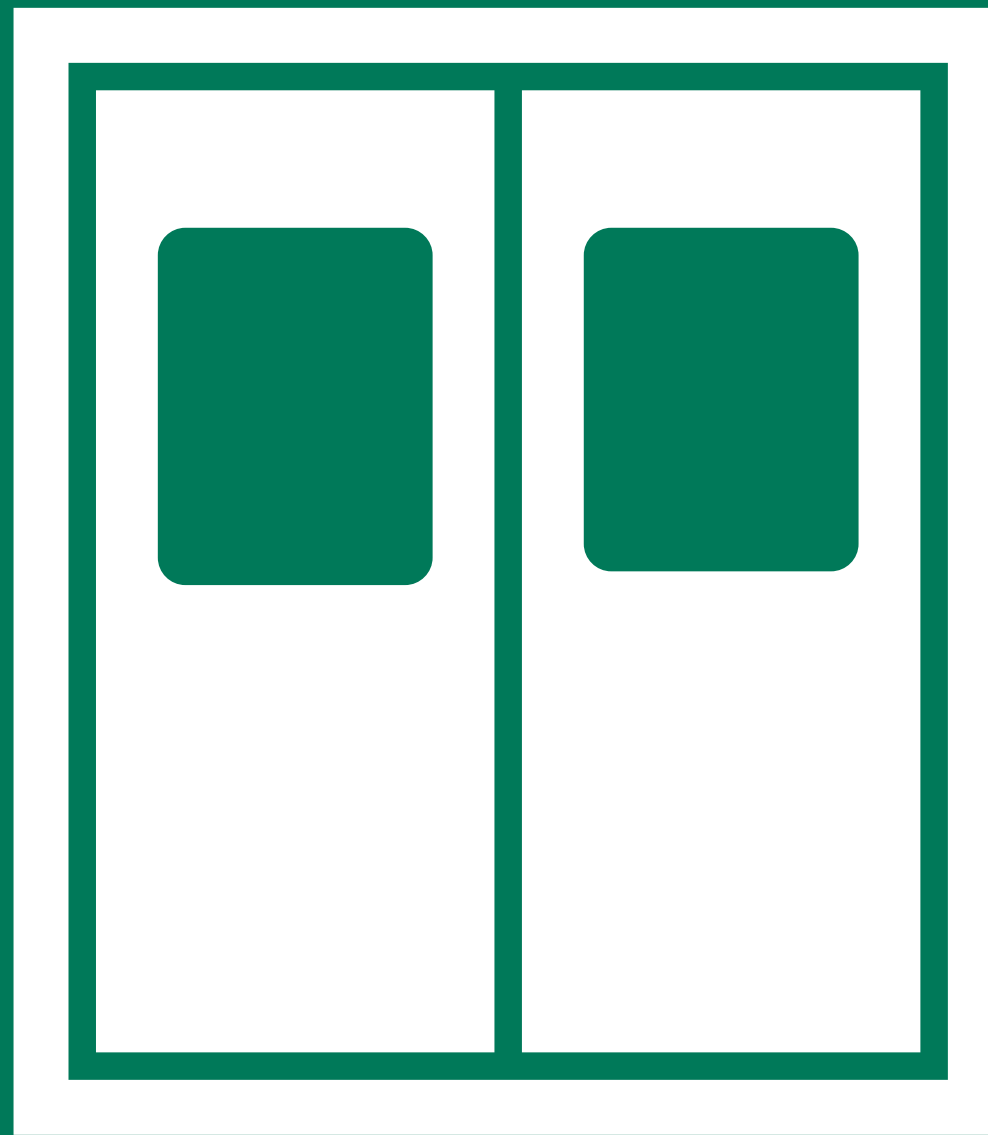
7-Eleven

Delivery





7 - ELEVEN



The Business Process for 7-11



7-
Eleven

The Business Process for 7-11

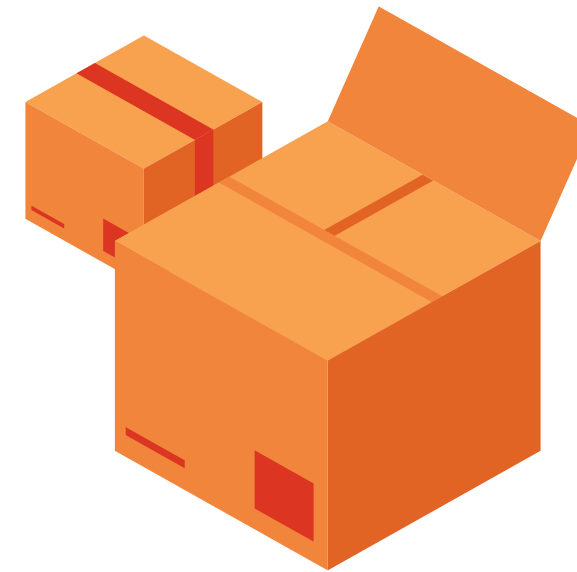
Branch



Employee



Location



Stock of Product

The Business Process for 7-11

Customers



Location



Delivery Service



The Business Process for 7-11

Call

center



Report The Problem



The Business Rules for 7-11

One customer can order many orders.

One order can be ordered by only one customer.



The Business Rules for 7-11

One order can send by one sender.

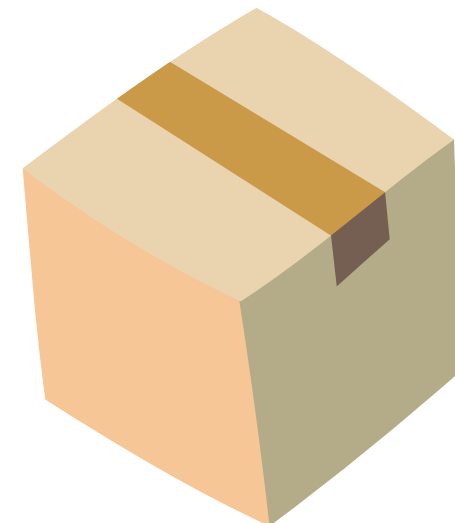
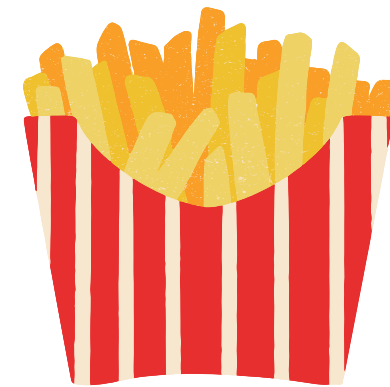
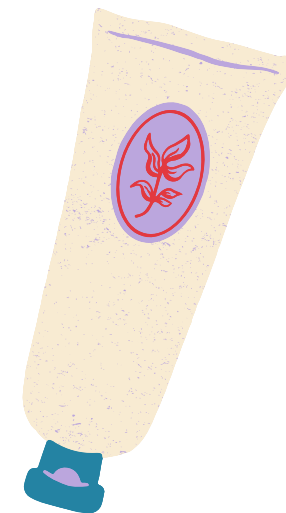
One sender can be sent many orders.



The Business Rules for 7-11

One order can order many products.

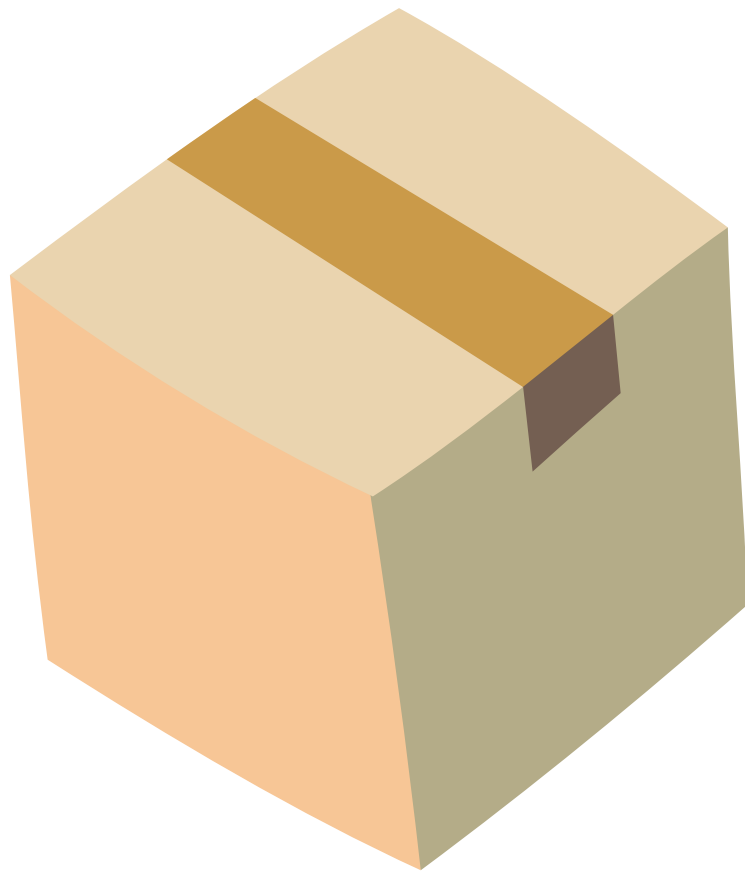
One product can be ordered by many orders.



The Business Rules for 7-11

One product has one information about the product.

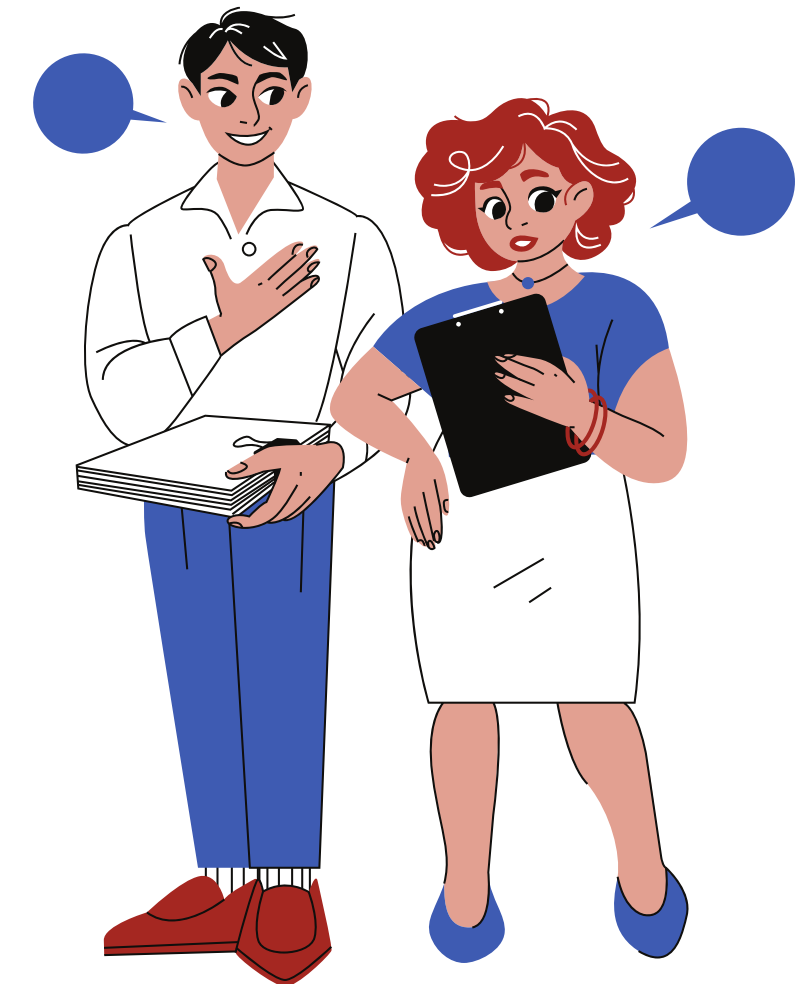
One information about the product has only one product.



The Business Rules for 7-11

One branch can employ many employees.

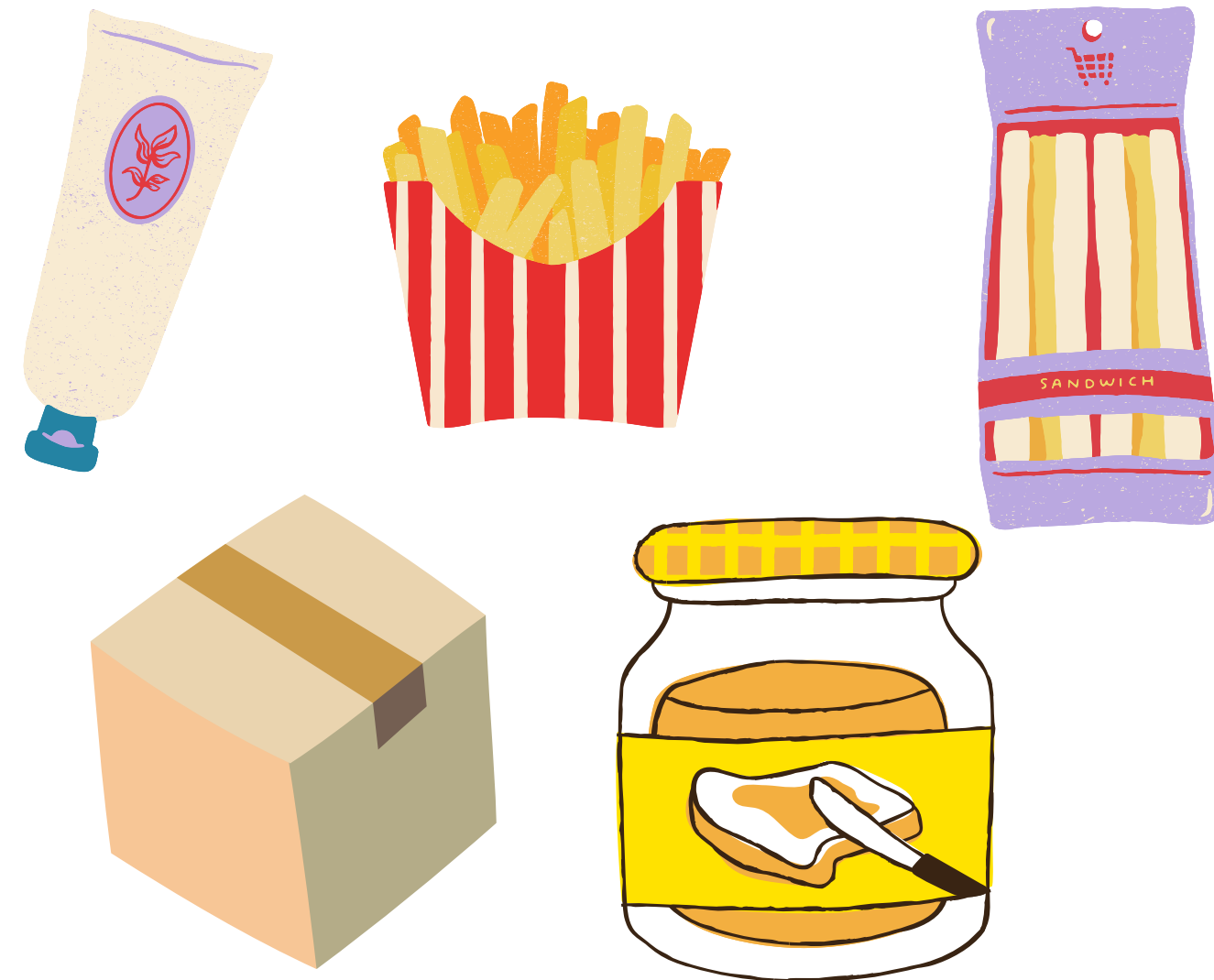
One employee can be employed by one branch.



The Business Rules for 7-11

One branch stock many products.

One product can be stocked in many branches.



The Business Rules for 7-11

One manager can manage only one branch.

One branch can be managed by one manager.



ER Diagram

CUSTOMER
<u>USER_ID</u>
USERNAME
TITLE
FIRSTNAME
LASTNAME
PHONE
EMAIL
DATE_OF_BIRTH
PICTURE_PROFILE
MODIFIED_DATE

01

Customer Entity

Represent a user for a 7-Eleven application that will keep track of basic information of each customer.



ORDER
<u>ORDER_ID</u>
PAYMENT
ORDER_NOTE
TOTAL_UNIT
DATE

02

Order Entity

Finalizing an order detailed when the customer places an online order.

INFORMATION_OF_PRODUCT
<u>INFORMATION_NO</u>
HOW_TO_USE
WARNING
COMPONENT
PRODUCER
LOGO
BARCODE

03

Information Of Product Entity

Represent the manufacturing information of each product.



PRODUCT
<u>PRODUCT_ID</u>
NAME_OF_PRODUCT
MEMBER_POINT
PRICE

BRANCH
<u>BRANCH_ID</u>
BRANCH_NAME
BRANCH_PHONE

04

Product Entity

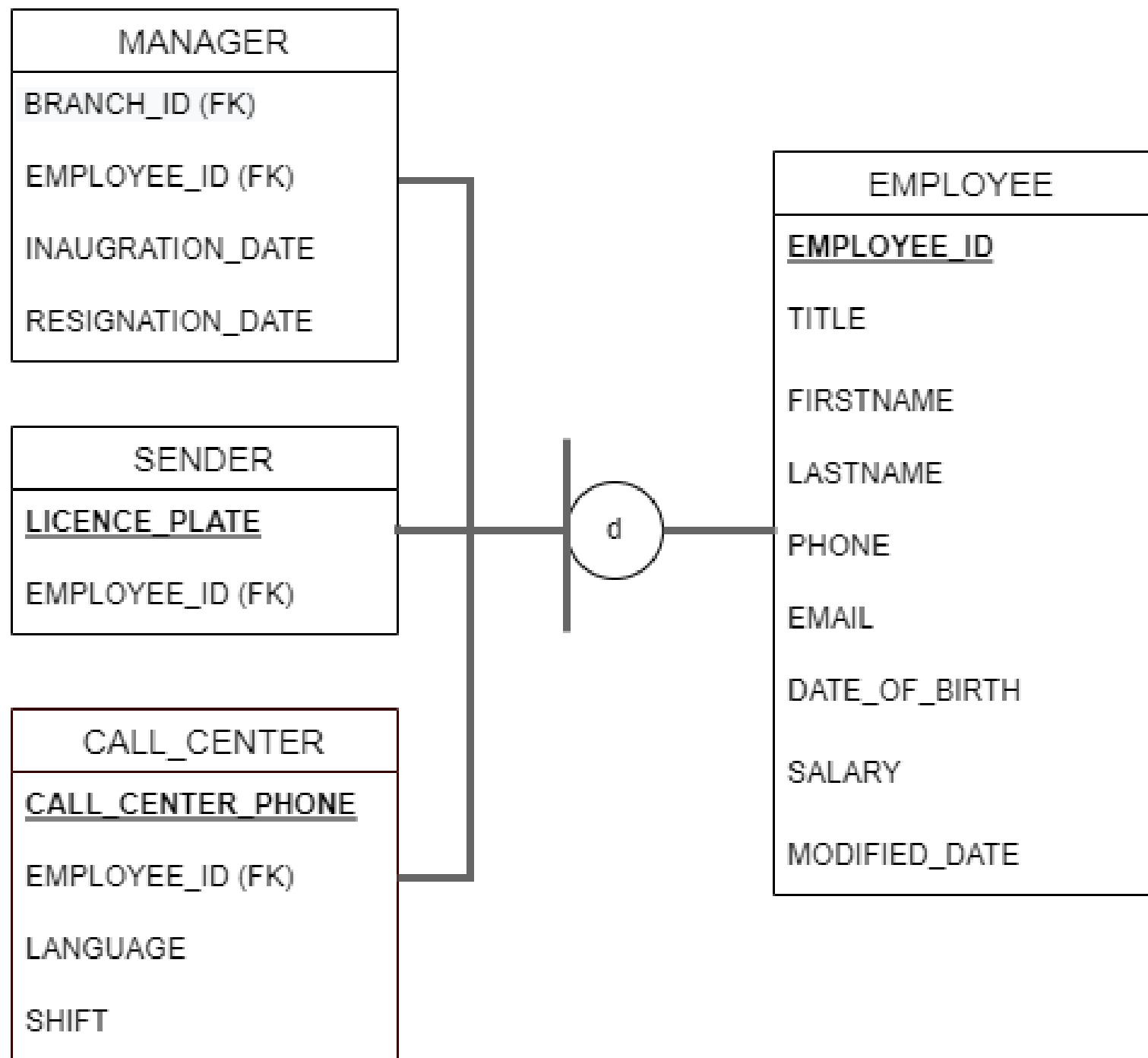
Keep track of the item information of a product.

05

Branch Entity

Describe the primary data of each 7-Eleven branch.





06

Employee Entity

Gathering the significant details of employees who work for the 7-Eleven company.

07

Manager Entity

Hold the specific information for an employee who works as a manager.

08

Sender Entity

Hold the specific information for an employee who works as a sender.

09

Call Center Entity

Hold the specific information for an employee who works as a call center.



10

Location Entity

Keep track of the address data.

11

Location Employee Entity

Keeping the address location of the employee who works with the 7-Eleven company.

12

Location Branch Entity

Keeping the address location of each 7-Eleven branch in Thailand

13

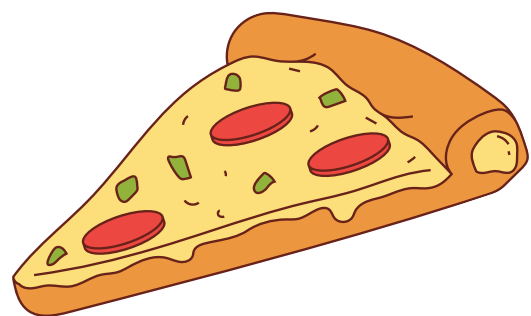
Location Customer Entity

Keeping the address location of each user that uses the 7-Eleven delivery application.

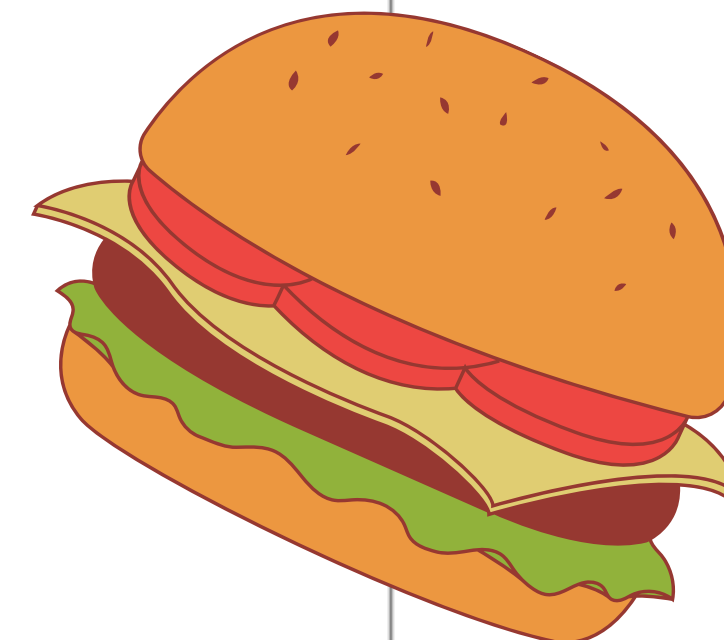
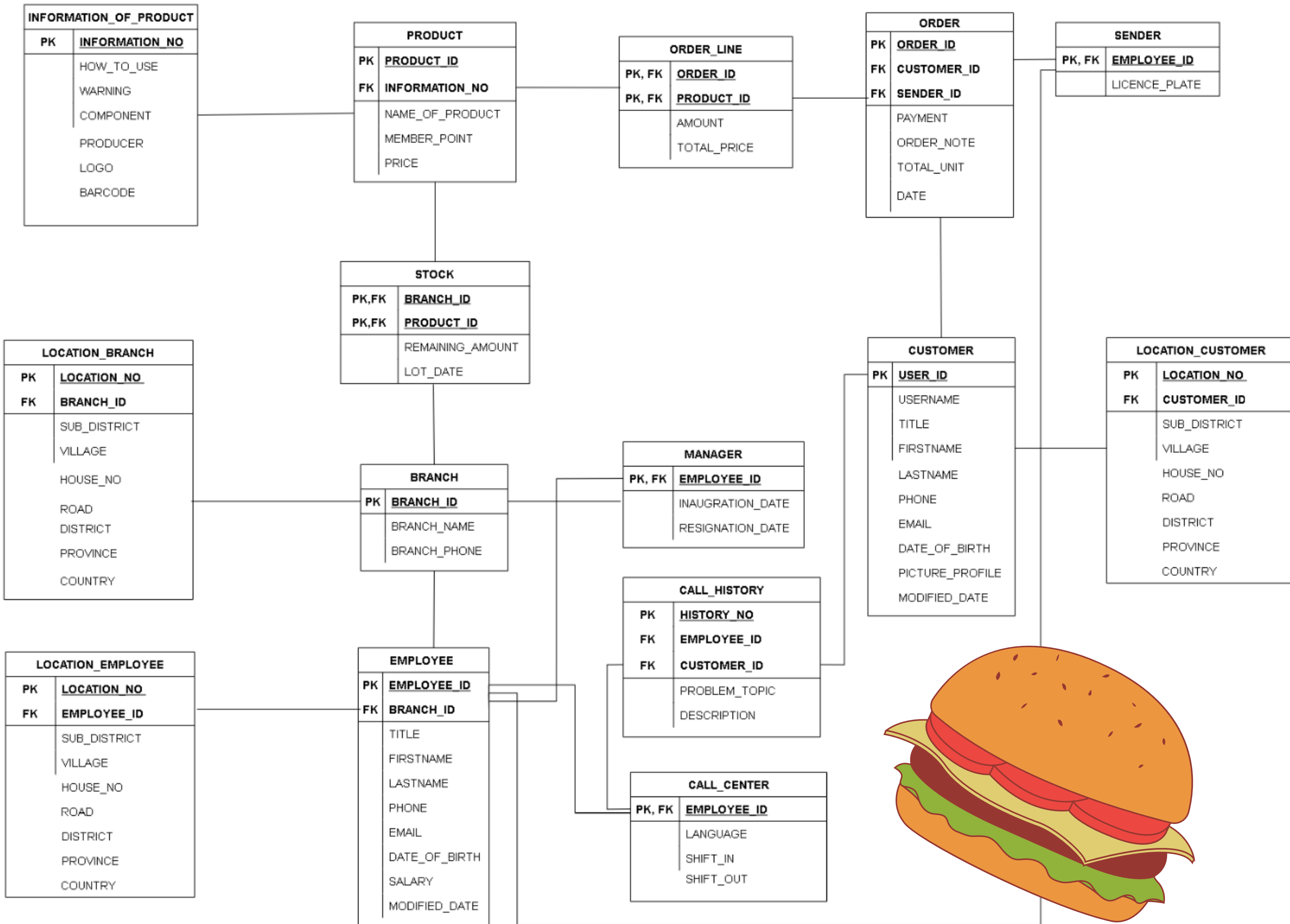


Final relational schema





Overview of final relational schema



Employee



EMPLOYEE	
PK	<u>EMPLOYEE_ID</u>
FK	BRANCH_ID
	TITLE
	FIRSTNAME
	LASTNAME
	PHONE
	EMAIL
	DATE_OF_BIRTH
	SALARY
	MODIFIED_DATE

MANAGER	
PK, FK	<u>EMPLOYEE_ID</u>
	INAUGRATION_DATE
	RESIGNATION_DATE

CALL_HISTORY	
PK	<u>HISTORY_NO</u>
FK	EMPLOYEE_ID
FK	CUSTOMER_ID
	PROBLEM_TOPIC
	DESCRIPTION

CALL_CENTER	
PK, FK	<u>EMPLOYEE_ID</u>
	LANGUAGE
	SHIFT_IN
	SHIFT_OUT

Location

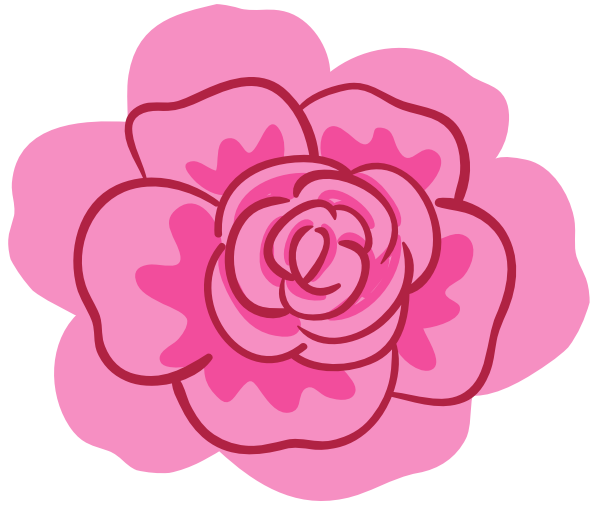


LOCATION_BRANCH	
PK	<u>LOCATION_NO</u>
FK	BRANCH_ID
	SUB_DISTRICT
	VILLAGE
	HOUSE_NO
	ROAD
	DISTRICT
	PROVINCE
	COUNTRY

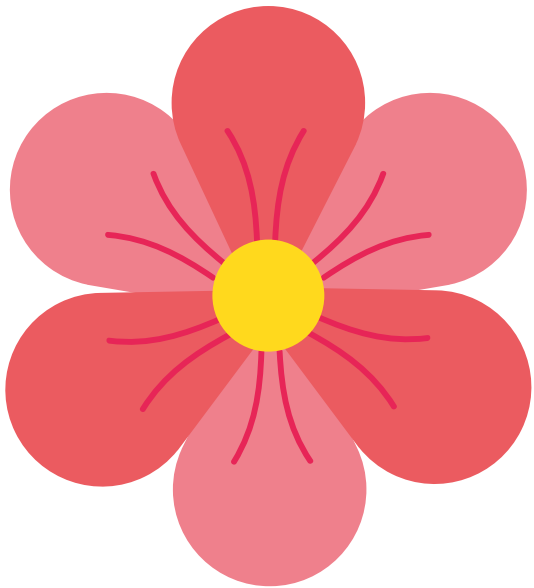
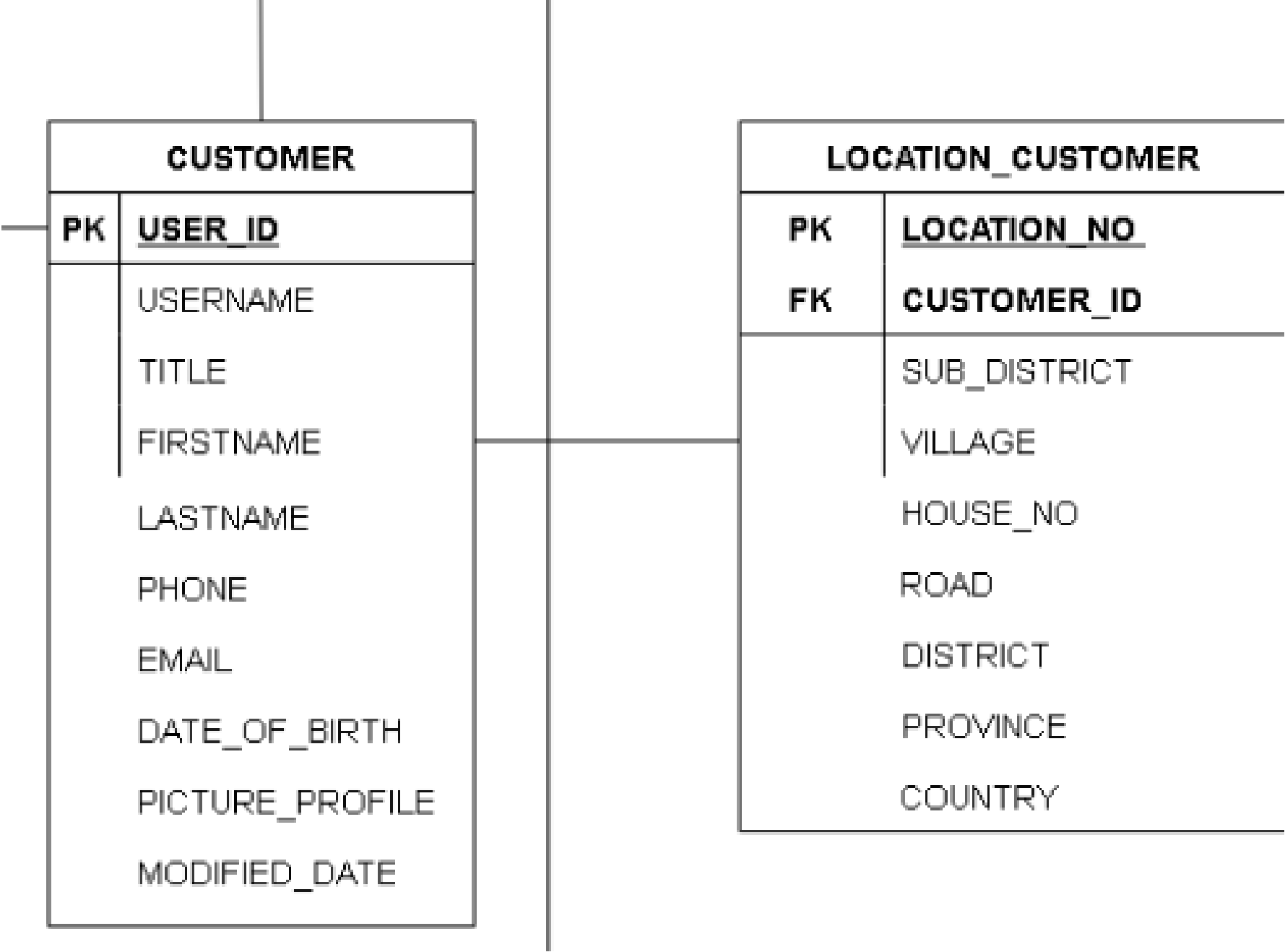
LOCATION_EMPLOYEE	
PK	<u>LOCATION_NO</u>
FK	EMPLOYEE_ID
	SUB_DISTRICT
	VILLAGE
	HOUSE_NO
	ROAD
	DISTRICT
	PROVINCE
	COUNTRY

BRANCH	
PK	<u>BRANCH_ID</u>
	BRANCH_NAME
	BRANCH_PHONE

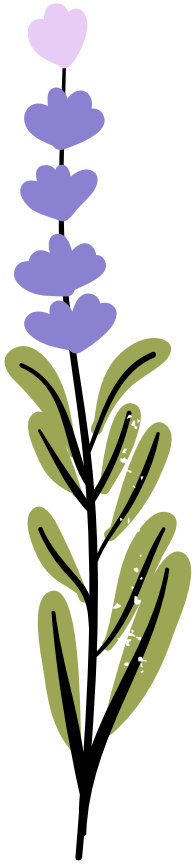
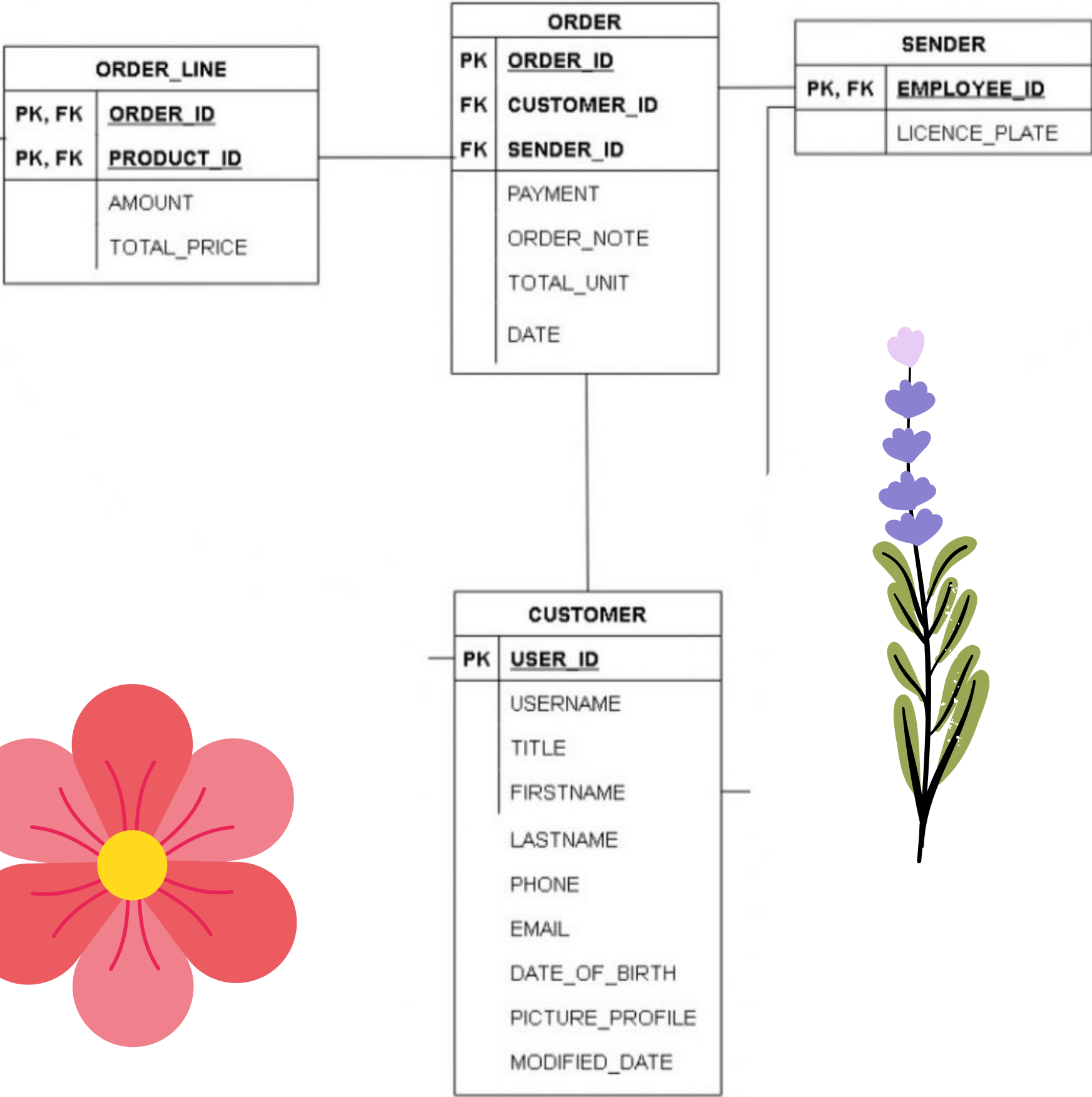
EMPLOYEE	
PK	<u>EMPLOYEE_ID</u>
FK	BRANCH_ID
	TITLE
	FIRSTNAME
	LASTNAME
	PHONE
	EMAIL
	DATE_OF_BIRTH
	SALARY
	MODIFIED_DATE



Location



Order



Product

INFORMATION_OF_PRODUCT	
PK	<u>INFORMATION_NO</u>
	HOW_TO_USE
	WARNING
	COMPONENT
	PRODUCER
	LOGO
	BARCODE

PRODUCT	
PK	<u>PRODUCT_ID</u>
FK	INFORMATION_NO
	NAME_OF_PRODUCT
	MEMBER_POINT
	PRICE

STOCK	
PK,FK	<u>BRANCH_ID</u>
PK,FK	<u>PRODUCT_ID</u>
	REMAINING_AMOUNT
	LOT_DATE

BRANCH	
PK	<u>BRANCH_ID</u>
	BRANCH_NAME
	BRANCH_PHONE



Example of SQL scripts & outputs



01

Example 1

Example of SQL scripts and
outputs

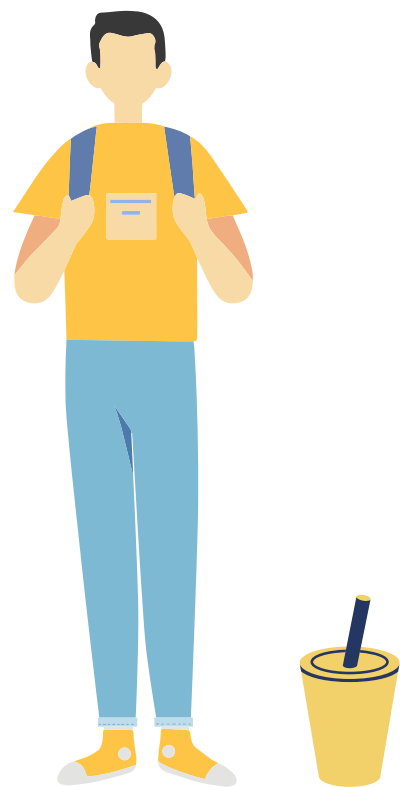
```
-- 5. List the problems that are related to the application.  
SELECT *  
FROM call_history  
WHERE problem_topic LIKE '%App%';
```



	History_No	Employee_ID	Customer_ID	Problem_Topic	Call_Description
▶	3	0633917	132011	App error	Cannot access to 7-Eleven application
	7	0649731	132011	App error	Cannot access to 7-Eleven application
	11	0633794	137510	App error	Cannot change an email
	12	0649731	179520	App error	Payment process error
	14	0633964	143002	App error	Payment process error
	19	0633964	137510	App error	Cannot access to 7-Eleven application
	28	0633794	179520	App error	Payment process error
•	NULL	NULL	NULL	NULL	NULL

```
SELECT name_of_product, member_point, price, how_to_use, warning, producer
FROM product AS p INNER JOIN information_of_product AS ip ON p.information_no = ip.information_no;
```

	name_of_product	member_point	price	how_to_use	warning	producer
▶	Lay big grab	3	30.00	NOTE	This product was processed ingredients containi...	Lay
	Pancake with strawberry sause	3	30.00	Keep in refridgerator	This product was processed ingredients containi...	EZYGO
	Chicken nuggets	4	35.00	Please warm nugget in microwave	This product was processed ingredients containi...	EZYGO
	Fluffy pancake	3	30.00	Keep in refridgerator	This product was processed ingredients containi...	Bow Delicious
	Sing Drinking Water	1	9.00	-	-	Singha
	Yogurt	2	15.00	Keep in refridgerator	This product was processed ingredients containi...	EZYGO
	Kit kat	3	25.00	Keep in refridgerator	This product was processed ingredients containi...	Nestle
	Eclair	3	25.00	Keep in refridgerator	This product was processed ingredients containi...	EZYGO
	Strawberry Mochi	3	30.00	Keep in refridgerator	This product was processed ingredients containi...	EZYGO
	Brown sugar soy milk	3	25.00	Keep in refridgerator	Best if consumed within 1 day after opening.	Tofusan



```
SELECT iof.producer, SUM(oi.amount) AS "number of sales"  
FROM order_line oi  
JOIN product pro ON oi.product_id = pro.product_id  
JOIN information_of_product iof ON pro.information_no = iof.information_no  
GROUP BY producer  
ORDER BY SUM(oi.amount) DESC;
```



	producer	number of sales
▶	EZYGO	52
	Bow Delicious	32
	Nestle	26
	Tofusan	19
	Lay	18
	Singha	3





Thank You

6388113 Poomrapee Wareeboutr

6388133 Pitchaya Teerawongpairoj

6388154 Kontawat Wisetpaitoon

6388196 Sasima Srijanya