



សាកលវិទ្យាល័យភូមិន្ទភ្នំពេញ
ROYAL UNIVERSITY OF PHNOM PENH

Computer E-commerce Management System

SUBJECT : DATABASE MANAGEMENT SYSTEM

PROFESSOR: MENG HANN

GROUP 6

- LEAP PHANIPHA
- YON SREYPIN
- YONG SREYOUN
- YOEURTH SAIYANN

Strong Entity Sets

ADMIN

CATEGORY

CUSTOMERS

VENDER

PAYMENTMETHOD

Weak Entity Sets

PRODUCT

DEPEND ON

CATEGORY

IMPORT

DEPEND ON

VENDER

ORDER

DEPEND ON

PAYMENTMETHOD

CUSTOMER

CART

DEPEND ON

PRODUCT

CUSTOMER

❑ ក្នុងប្រព័ន្ធគ្រប់គ្រងកុំព្យូទ័រ និង គេហទំព័រ យើងអាចកំណត់បាន Entities មួយចំនួនដូចជា:

❖ ចំពោះមនុស្ស:

- 1.ព័ត៌មានរបស់អតិថិជន(customers's Information)
- 2.ព័ត៌មានរបស់អ្នកគ្រប់គ្រងប្រព័ន្ធ(Admin's Information)
- 3.ព័ត៌មានអ្នកផ្គត់ផ្គង់(Vender's Information)

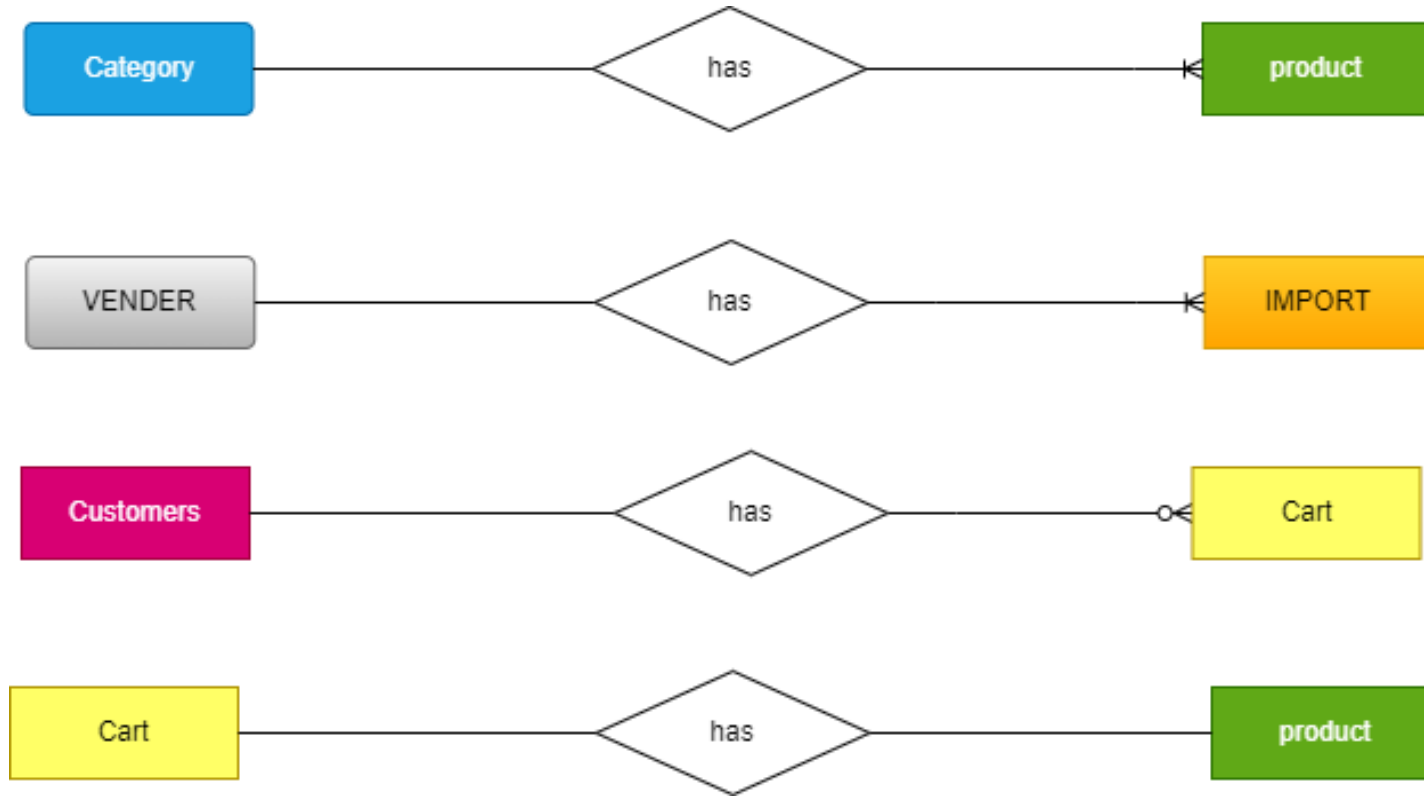
❖ ចំពោះវត្ថុ:

- 1.ព័ត៌មានរបស់កុំព្យូទ័រ(Product's Information)
- 2.ព័ត៌មានរបស់ប្រភេទកុំព្យូទ័រ(Category's Information)

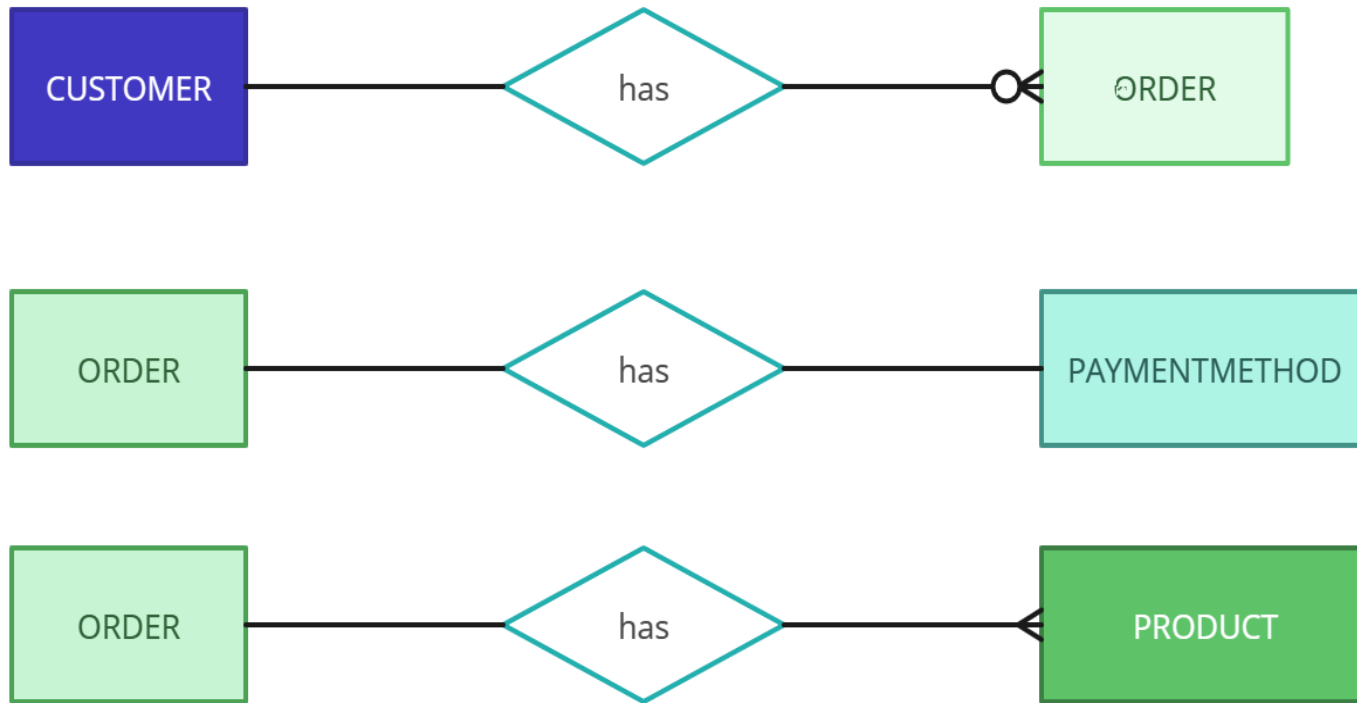
❖ ចំពោះព្រឹត្តិការណ៍:

- 1.ព័ត៌មាននៃការនាំចូល (Import' information)
- 2.ព័ត៌មាននៃការកម្ចីងទំនិញ(order's information)
- 3.ព័ត៌មាននៃការអតិថិជនដាក់ទំនិញចូលកន្ត្រក(Cart's information)
- 4.ព័ត៌មាននៃវិធីបង់ប្រាក់(Payment's Information)

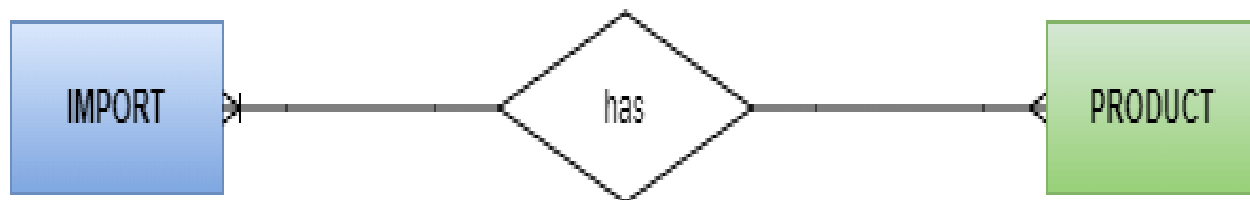
REALATIONSHIP EACH TABLE



REALATIONSHIP EACH TABLE



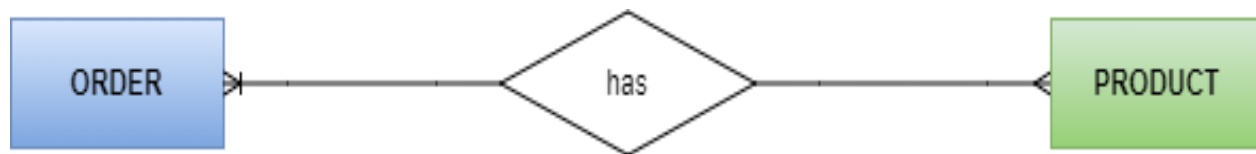
REALATIONSHIP EACH TABLE



- a. IMPORT មួយដងមាន PRODUCT មួយឬច្រើន
- b. PRODUCT នីមួយៗត្រូវបាន IMPORT មួយ ឬ ច្រើនដង
ដូចនេះយើងត្រូវបម្លែងទៅជាទម្រង់ ONE-TO-MANY:

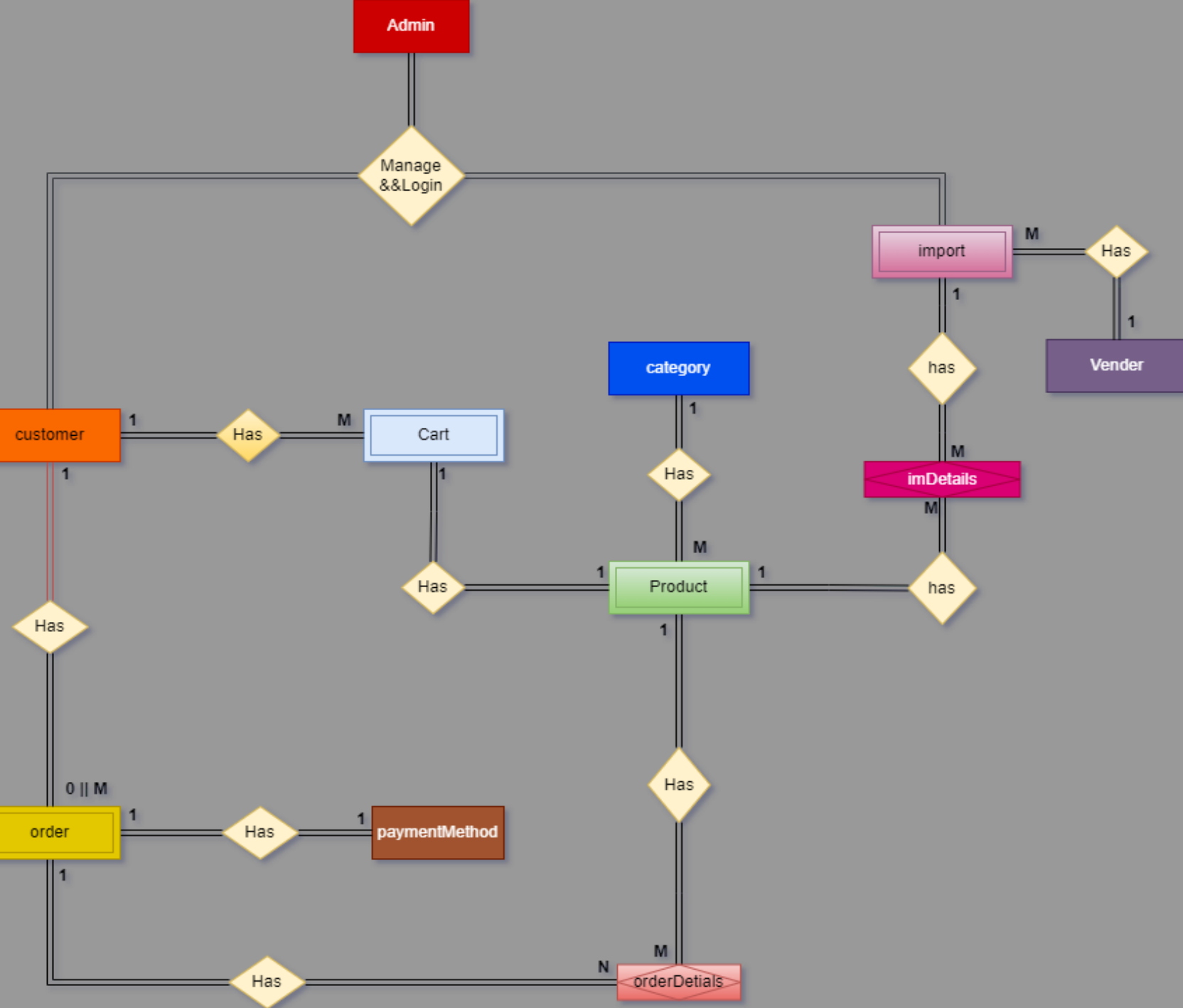


REALATIONSHIP EACH TABLE



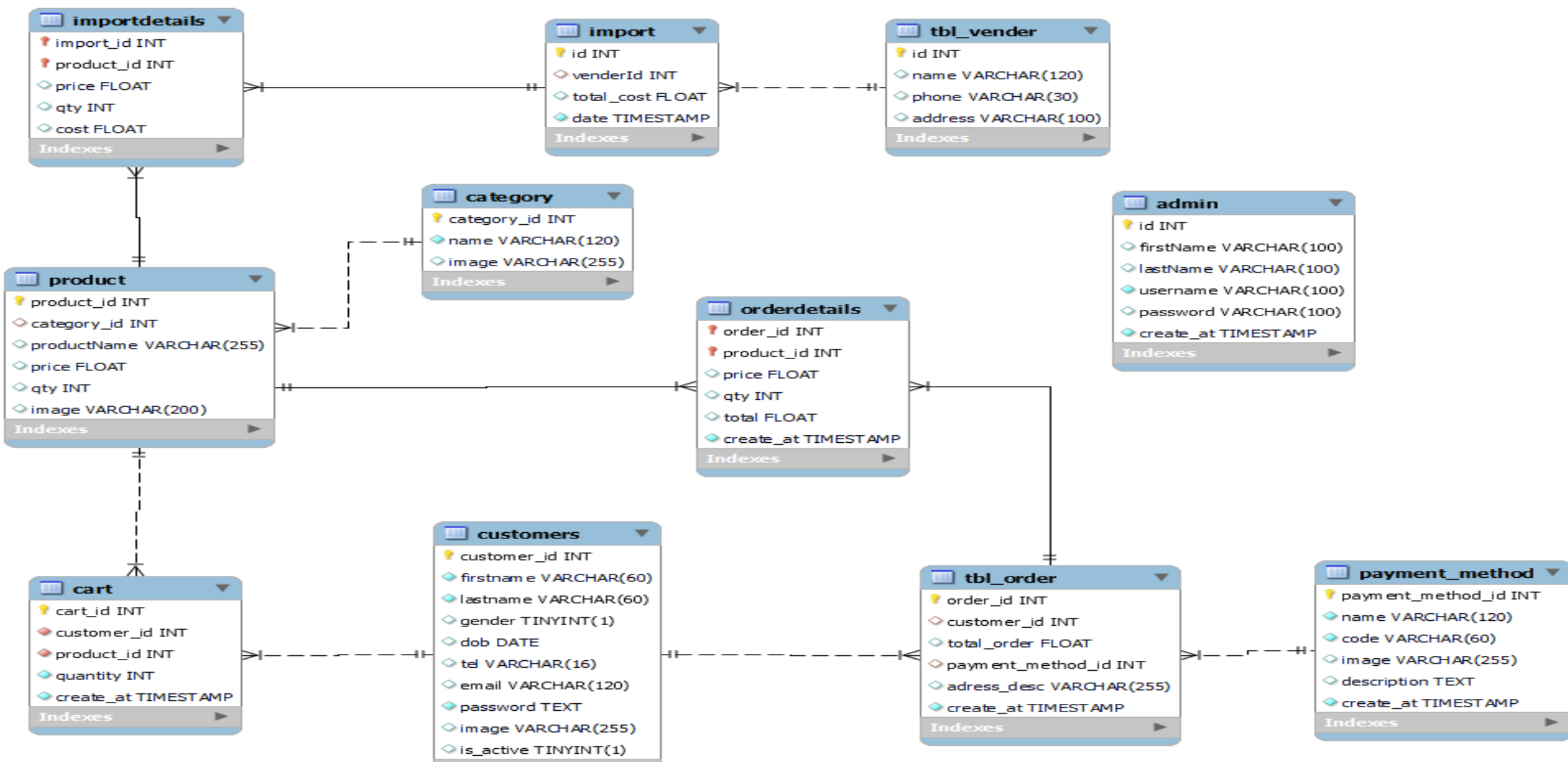
- a. មានន័យថា ORDER ម្តងអាចមាន PRODUCT មួយមុខ ឬ ច្រើនមុខ
 - b. មានន័យថា PRODUCT នីមួយៗអាចត្រូវបាន ORDER មួយដង ឬ ច្រើនដង
- ដូចនេះយើងត្រូវបង្កើតទៅជាទម្រង់ ONE TO MANY:





ENTITY RELATIONSHIP DIAGRAM

ALL TABLE



NORMALISATION (2NF)

Products

product_id

category_id

productName

CategoryName

price

qty

description

- In the given table, we can see that there are two functional dependencies:
 - 1. product_id → category_id
 - 2. category_id → category_name
- The first functional dependency indicates that the category_id is determined by the product_id. This means that for each product, there is only one category that it belongs to. The second functional dependency indicates that the category_name is determined by the category_id. This means that for each category, there is only one name.
- Based on these functional dependencies, we can create two separate tables: one for product and one for category.

NORMALISATION (2NF)

TABLE PRODUCT

product_id	category_id	Product_name	qty	price	description	image
1	2	ACER NITRO5	20	1999	RAM 16 GB....
2	1	Ro STRix	30	789	RAM 16 GB....
3	3	IDEA PAD 2	10	940	RAM 16 GB....
4	3	IDEA PAD 3	10	120	RAM 16 GB....	
5	2	MACBOOK 16"	40	120	RAM 16 GB....

The Categories table will contain all the information related to categories, including the category_id and category_name, and image. The primary key of this table will be the category_id.

The Products table will contain all the information related to products, including the product_id, category_id, product_name, qty, description image, and price. The primary key of this table will be the product_id, and the category_id will be a foreign key referencing the Categories table.

TABLE CATEGORY

category_id	Product_name	image
1	ASUS
2	ACER
3	LENOVO
4	HP	
5	MAC



Do you have any questions ?

NOW I WILL TAKE
YOUR QUESTIONS.