DEPARTMENTAL STORE MANAGEMENT SYSTEM

Project Tittle:

Departmental Store Management System

Course Details	
Course Name	***Introduction to Database***
Section: I	
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1. Introduction :

It is a database of departmental store. Departmental store is a large retailer who stocks and sells product like groceries, cosmetics, food, drinks etc. It is very large supermarkets or shop selling household goods. People of our country like departmental store because they can buy any kind of product from departmental store. This database system gives management an efficient way to handle their information about products and customers. This database stores any kind of information about product, customers, supplier, admin.

This database

1. Stores information of products
2. Stores customers details
3. Stores supplier information who supplies any kind of product
4. Stores admin information who insert any kind of product
5. Stores information of all customer who buys which product

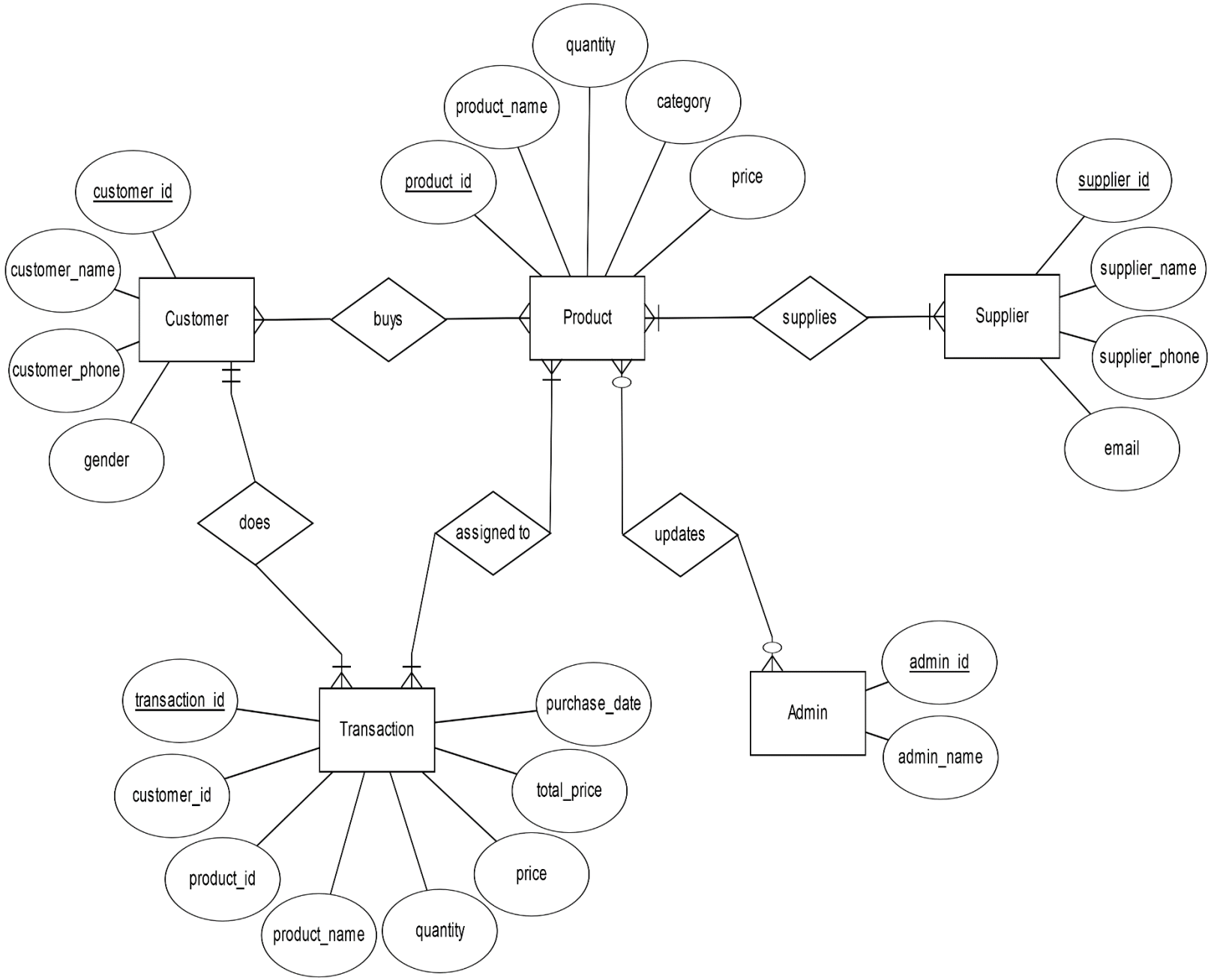
2. Features of database :

- Add and maintain records of available products.
- Add and maintain customer details.
- Add and maintain description of new products.
- All details about admin.
- All details about supplier.
- All details about customer who buys which products.

3. Problem Statements :

1) Display customer name, product name, quantity, price, total price for all customer
2) Display supplier number, supplier name, product name who supplies product ‘apple’
3) Display admin number, admin name, product name who insert product ‘hilsha’
4) Display product number, product name, quantity, price for product ‘dove’

4. ER Diagram


quantity
product_name
category
product_id
price
customer_id
customer_name
Customer
buys
Product
supplies
Supplier
supplier_id
supplier_name
supplier_phone
email
customer_phone
gender
does
assigned to
updates
transaction_id
Transaction
purchase_date
total_price
price
quantity
product_name
product_id
customer_id
Admin
admin_id
admin_name

5. Normalization :

The normalization is given below from 1NF up to 3NF

1NF:

Product_details :

customer_id	customer_name	customer_phone	gender	product_id
product_name	quantity	category	price	

Supplier :

supplier_id	supplier_name	supplier_phone	email

Transaction :

customer_id	customer_name	customer_phone	gender
product_id	product_name	quantity	category

Admin :

admin_id	admin_name

2NF :

Customer :

customer_id	customer_name	customer_phone	gender
product_id	product_name	quantity	category

Product :

product_id	product_name	price

3NF :

Transaction :

transaction_id	customer_id	product_id	product_name	total_price	purchase_date

Product :

product_id	quantity	category

Customer :

customer_id	customer_name	customer_phone	gender	product_id

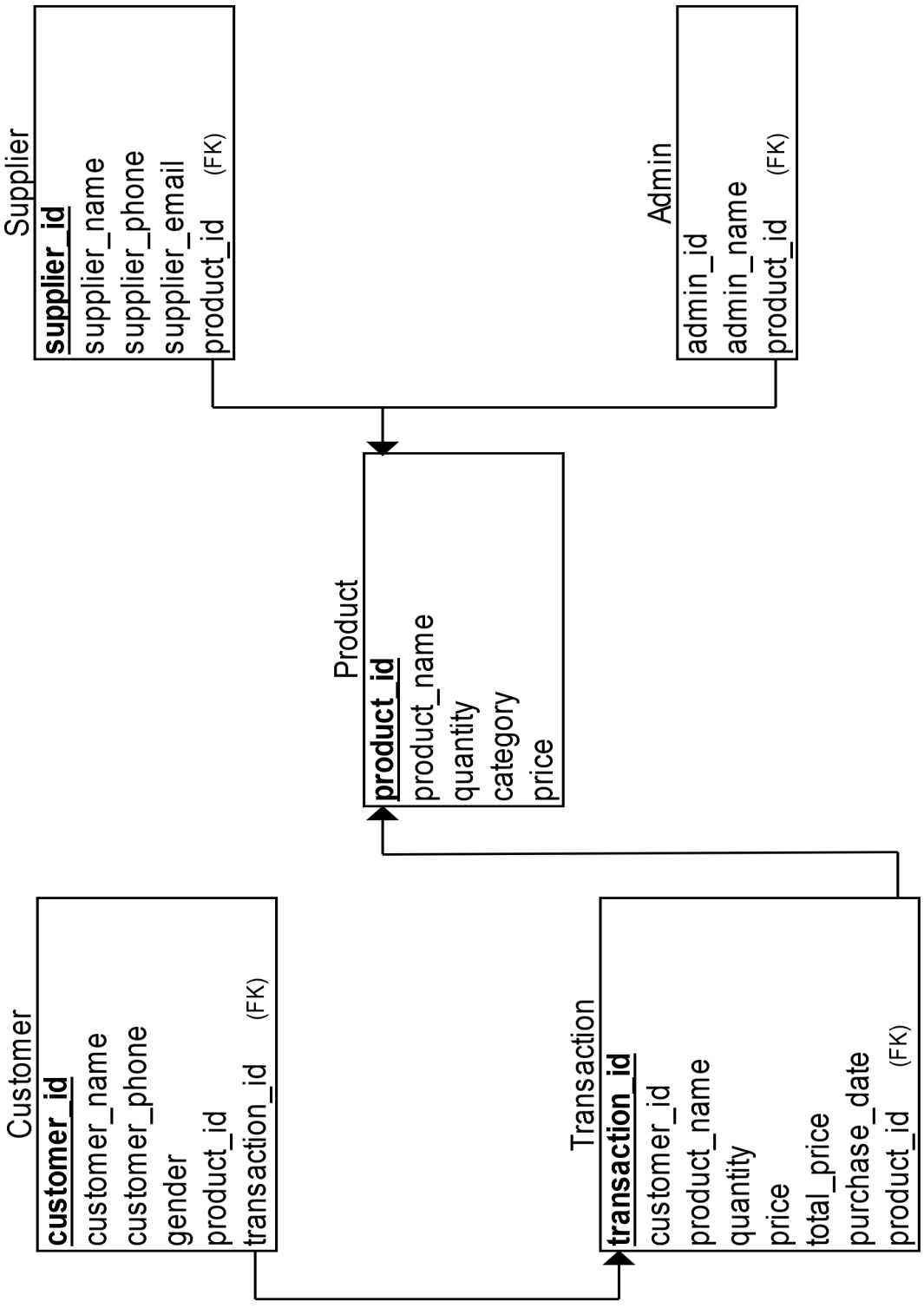
Admin_Product :

admin_id	admin_name	product_id

Supplier_Product :

supplier_id	supplier_name	supplier_phone	email	product_id

6. Schema :


Supplier
supplier_id
supplier_name
supplier_phone
supplier_email
product_id (FK)
Admin
admin_id
admin_name
product_id (FK)
Product
product_id
product_name
quantity
category
price
Customer
customer_id
customer_name
customer_phone
gender
product_id
transaction_id (FK)
Transaction
transaction_id
customer_id
product_name
quantity
price
total_price
purchase_date
product_id (FK)

7. Queries:

7.01 DDL:

1. Creating Customer table

Create table customer(customer_id number(10) primary key, customer_name varchar2(20), phone number(20), gender varchar2(10), product_id number(10), transaction_id number(20));

2. Creating Product table

Create table product(product_id number(10) primary key, product_name varchar2(20), quantity varchar2(20), category varchar2(20), price number(20));

3. Creating Supplier table

Create table supplier(supplier_id number(10) primary key, supplier_name varchar2(20), supplier_phone number(20), supplier_email varchar2(20), product_id number(10));

4. Creating Transaction table

Create table transaction(transaction_id number(10) primary key, customer_id number(10), product_id number(10), product_name varchar2(20), quantity varchar2(20), price number(20), total_price number(20),purchase_date date sysdate);

5. Creating Admin table

Create table admin(admin_id number(10) primary key, admin_name varchar2(20), product_id number(10));

7.02 DML

1. Customer table

```
insert into customer
values(1001,’Arnab’,12345,’Male’,11,101);
```

2. Product table

```
insert into product
values(11,’Apple’,’10kg’,’Food’,150);
```

3. Supplier table

```
insert into supplier
values(101,'Aditya',987456,'aditya@gmail.com',11);
```

4. Transaction table

```
insert into transaction
values(101,1001,11,'Apple','5kg',150,750,'17-JAN-17');
```

5. Admin table

```
insert into admin
values(10001,'Dipto',11);
```

7.03 Solutions to problem statements

7.03.01 Display customer name, product name, quantity, price, total price for all customer

```
select c.customer_name,t.product_name,t.quantity,t.price,t.total_price

from customer c join transaction t

on c.customer_id=t.customer_id;
```

Results Explain Describe Saved SQL History

CUSTOMER_NAME	PRODUCT_NAME	QUANTITY	PRICE	TOTAL_PRICE
Arnab	Apple	5kg	150	750
Anik	Hilsha	2kg	1000	2000
Farhan	Body lotion	2	200	4000
Natasha	Dove	2	100	200
Tonni	Coca cola	2	50	100

5 rows returned in 0.06 seconds CSV Export

7.03.02 Display supplier number, supplier name, product name who supplies product ‘apple’

```
select s.supplier_id,s.supplier_name,p.product_name

from supplier s join product p

on s.product_id=p.product_id

and p.product_name='Apple';
```

Results Explain Describe Saved SQL History

SUPPLIER_ID	SUPPLIER_NAME	PRODUCT_NAME
1	Aditya	Apple

1 rows returned in 0.04 seconds CSV Export

7.03.03 Display admin number, admin name, product name who insert product ‘hilsha’

```
select a.admin_id,a.admin_name,p.product_name
from admin a join product p
on a.product_id=p.product_id
and p.product_name='Hilsha'
```

Results Explain Describe Saved SQL History

ADMIN_ID	ADMIN_NAME	PRODUCT_NAME
10002	Joy	Hilsha

1 rows returned in 0.02 seconds CSV Export

7.03.04 Display product number, product name, quantity, price for product ‘dove’

```
select product_id,product_name,quantity,price
from product
where product_id=(select product_id
                  from product
                  where product_name='Dove');
```

Results Explain Describe Saved SQL History

PRODUCT_ID	PRODUCT_NAME	QUANTITY	PRICE
14	Dove	10	100

1 rows returned in 0.00 seconds CSV Export