Software Engineering Project

Sales Company

الاسم :

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Used technology:

1. **MySQL**
2. **Python**

Description

Create a database schema design based on the following:

Sales company imports many types of **products** each product has product-id, product-description, product-class, and price.

The company imports the products from **storehouses** each storehouse has store-number, store-place.

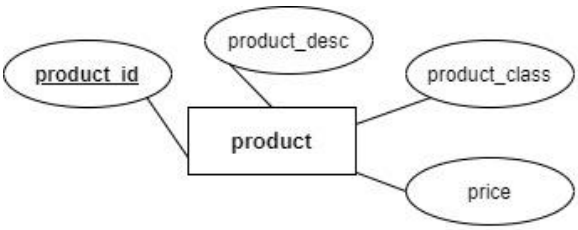
There are a lot of **salespersons** are working in the company each salesperson has SP-ID, SP-name, SP-address, and commission-rate.

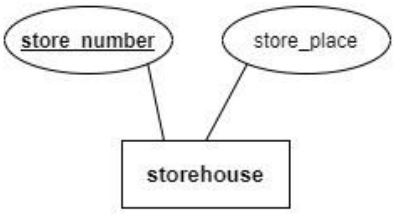
Salesperson can deal with many **customers** each customer has customer-ID, customer-name, customer-address, and balance.

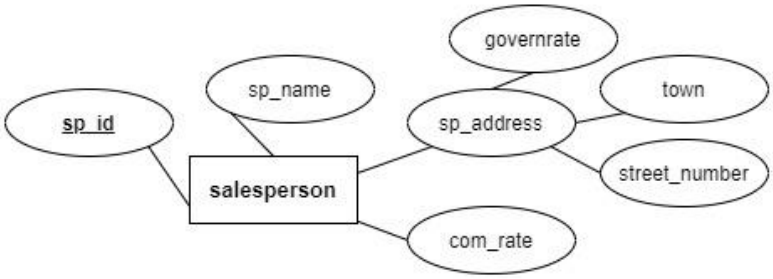
The customer can make many **orders** each order has order-ID and order-date.

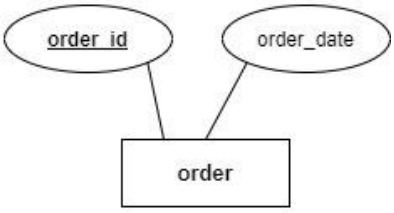
Construct the database for the company and make some queries.

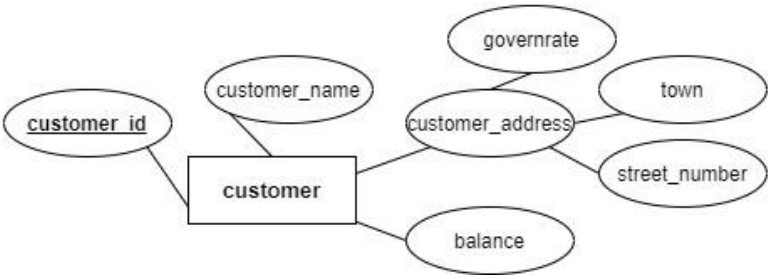
Entities


product_id
product_desc
product_class
product
price

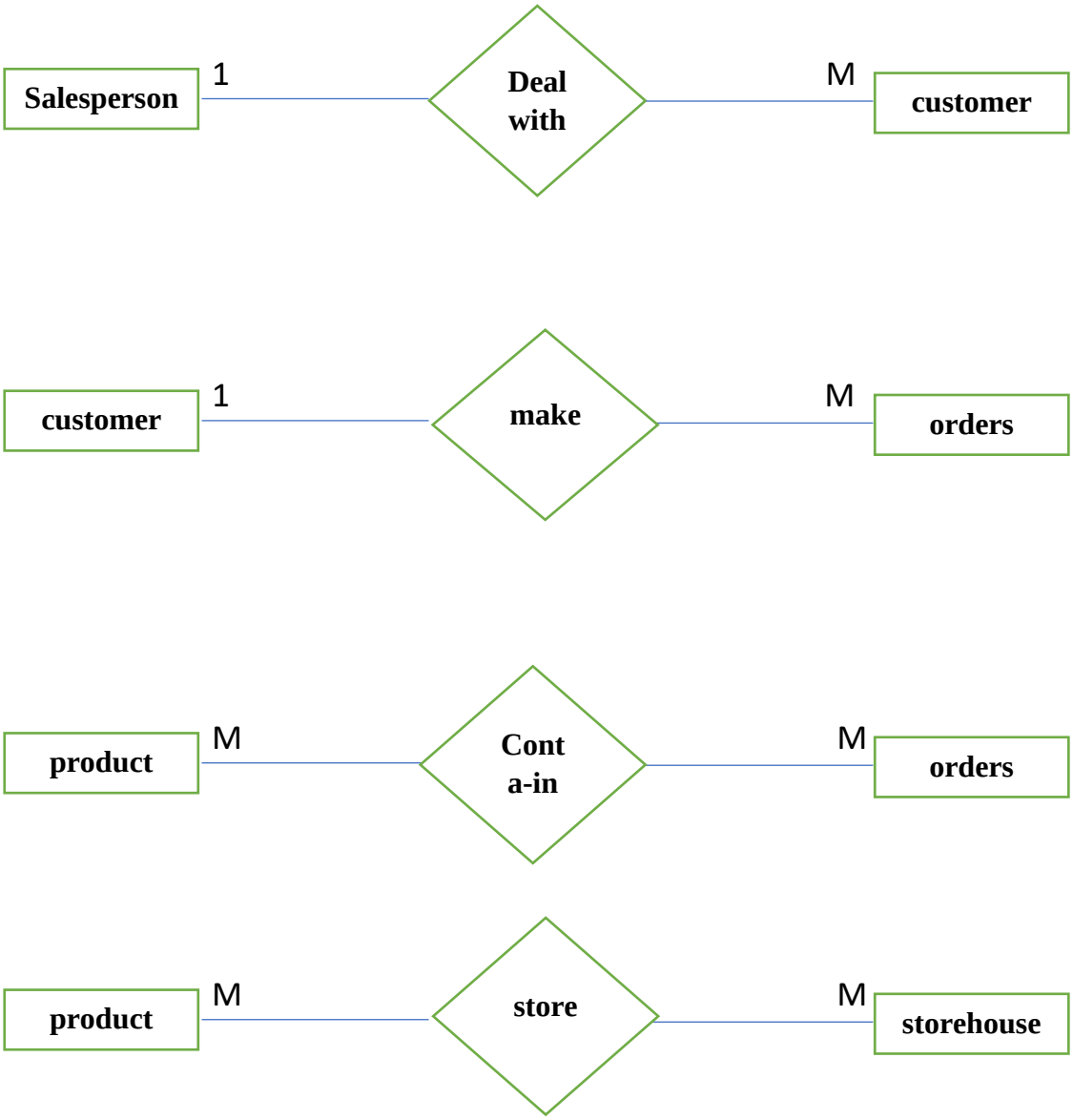

store_number
store_place
storehouse


governrate
sp_name
town
sp_id
sp_address
street_number
salesperson
com_rate

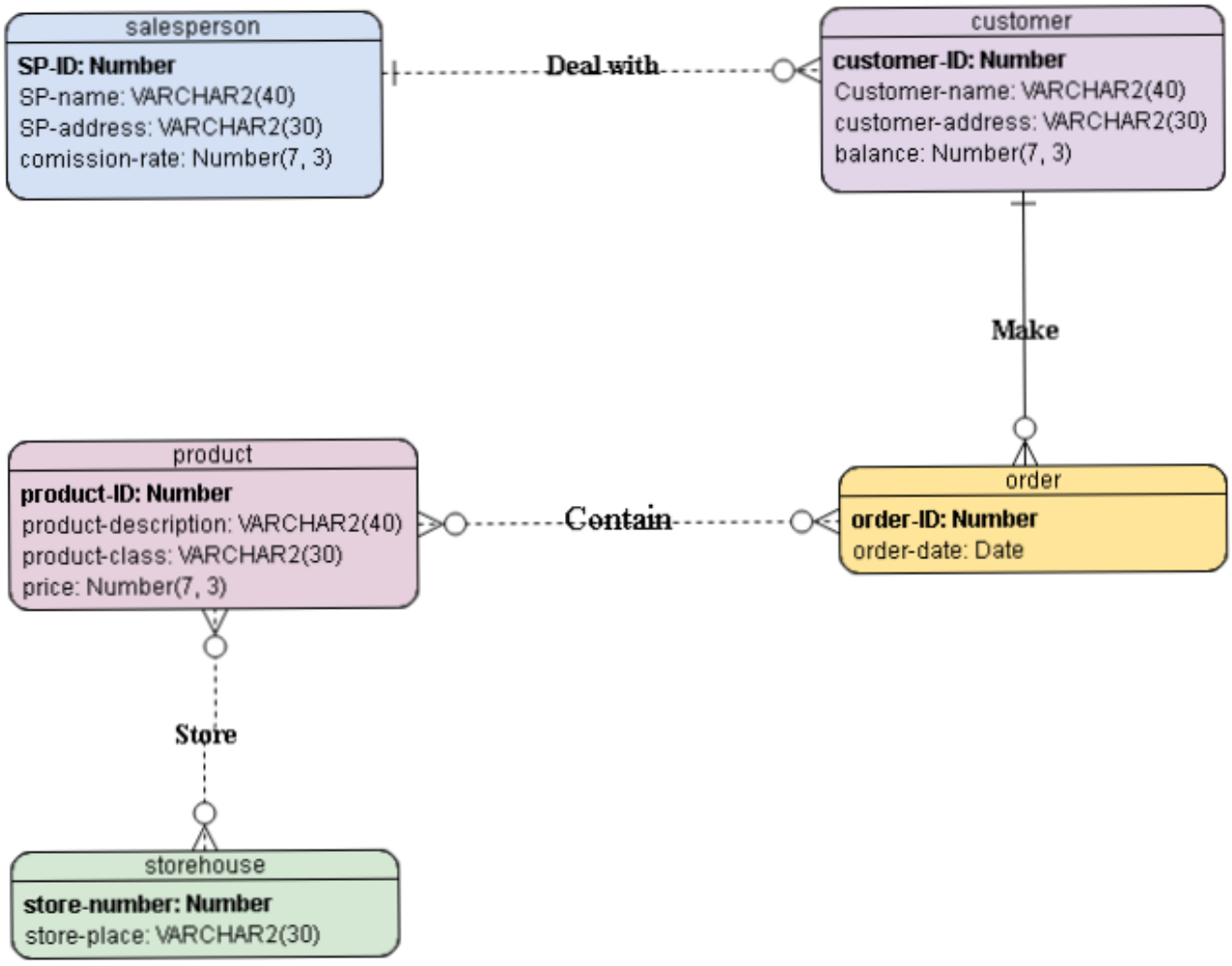

order_id
order_date
order


governrate
customer_name
town
customer_id
customer_address
street_number
customer
balance

Relation between entities



ER Diagram


salesperson
SP-ID: Number
SP-name: VARCHAR2(40)
SP-address: VARCHAR2(30)
comission-rate: Number(7, 3)
Deal with
customer
customer-ID: Number
Customer-name: VARCHAR2(40)
customer-address: VARCHAR2(30)
balance: Number(7, 3)
Make
product
product-ID: Number
product-description: VARCHAR2(40)
product-class: VARCHAR2(30)
price: Number(7, 3)
Contain
order
order-ID: Number
order-date: Date
Store
storehouse
store-number: Number
store-place: VARCHAR2(30)

Relational schema

Salesperson

SP-ID	SP-name	governorate	town	Street-number	Commission-rate

customer

Customer-ID	Customer-name	governorate	town	Street-number	balance	SP-ID

orders

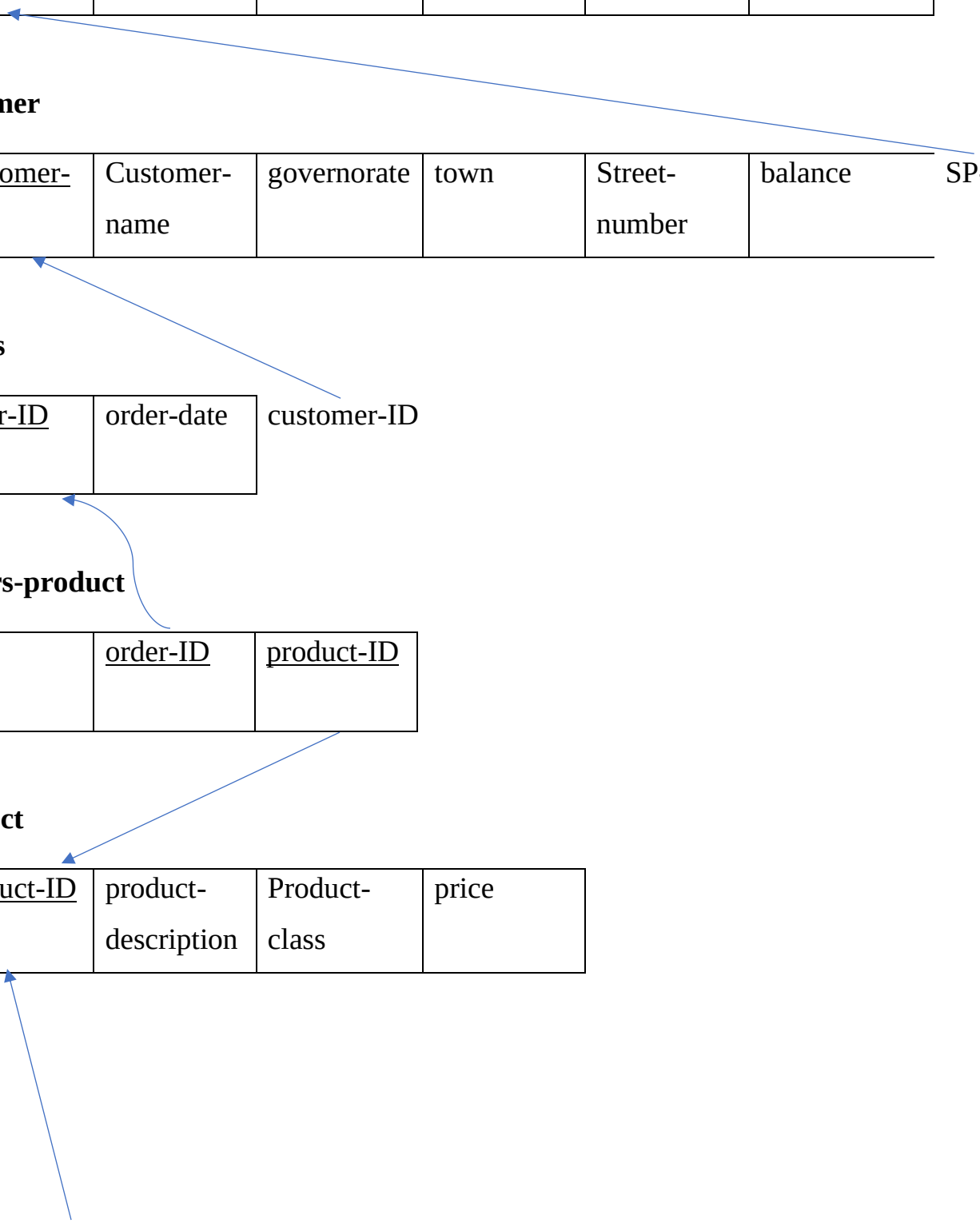
order-ID	order-date	customer-ID

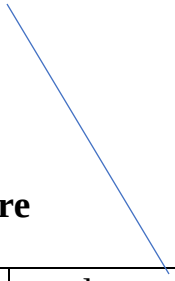
Orders-product

ID	order-ID	product-ID

product

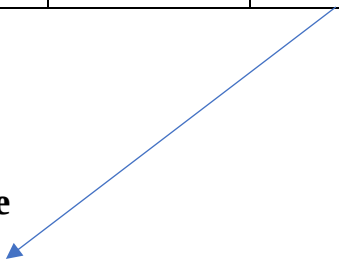
product-ID	product-description	Product-class	price





Product- Store

ID	product - ID	store-number



Storehouse

Store-number	Store-place

Data dictionary

1. Salesperson

Table name	Salesperson
Purpose	Saving Salesperson data
No of rows	6

Field	Type	Description	PK	FK	Ref table
SP-ID	Integer	The ID number for salesperson	✓		
SP-name	VARCHAR2(40)	Name of the salesperson			
governorate	VARCHAR2(10)	The GOV of each salesperson			
town	VARCHAR2(10)	Name of the town			
ST-number	VARCHAR2(10)	Street number			
Commission-rate	Number (7, 3)	Commission rate for the salesperson			

2. Customer

Table name	Customer
Purpose	Saving Customer data
No of rows	7

Field	Type	Description	PK	FK	Ref table
customer-ID	Integer	The ID number for customer	✓		
customer-name	VARCHAR2(40)	Name of the customer			
governorate	VARCHAR2(10)	The GOV of each customer			
town	VARCHAR2(10)	Name of the town			
ST-number	VARCHAR2(10)	Street number			

balance	Number (7, 3)	Balance of the customer			
SP-ID	Integer			✓	Salesperson

3. Orders

Table name	Orders
Purpose	Saving Orders data
No of rows	3

Field	Type	Description	PK	FK	Ref table
order-ID	Integer	The ID number for order	✓		
order-date	Date	date of the order			
Customer-ID	Integer			✓	Customer

4. Product

Table name	Product
Purpose	Saving Product data
No of rows	4

Field	Type	Description	PK	FK	Ref table
product-ID	Integer	The ID number for product	✓		
Product-description	VARCHAR2(40)	Description of the product			
Product-class	VARCHAR2(30)	Class type			
price	Number (7, 3)				

5. Orders-product

Table name	Orders-product
Purpose	Saving Orders-product data
No of rows	3

Field	Type	Description	PK	FK	Ref table
ID	Integer		✓		
order-ID	Integer	The ID number for order		✓	Orders
product-ID	Integer	The ID number for product		✓	Product

6. Storehouse

Table name	Storehouse
Purpose	Saving storehouses data
No of rows	2

Field	Type	Description	PK	FK	Ref table
store-number	Integer	The number for store	✓		
store-place	VARCHAR2(30)	Location of the store			

7. Product-Store

Table name	Product-Store
Purpose	Saving product-store data
No of rows	3

Field	Type	Description	PK	FK	Ref table
ID			✓		
product-ID	Integer	Product id number		✓	Product
store-number	Integer	Storehouse number		✓	Storehouse