Pharmacy DBMS Using SQL

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DBMS Description

Pharmacy DBMS empowers pharmacies to manage inventory, distributors, manufacturers, and distribution chains with ease. This comprehensive database solution, featuring dedicated tables for:

- Pharmacies: Track locations, contact information, and licensing details.
- Products: Maintain accurate data on medications, including prices, stock levels, and expiration dates.
- Distributors: Manage relationships with different suppliers, pricing quotes, and purchase orders.
- Distributor Companies: Store information on distributor contact details, product availability, and delivery schedules.
- Distribution: Monitor order statuses, track shipments, and analyze delivery times for optimal supply chain management.
- Manufacturing Companies: Link products to their manufacturers, enabling efficient sourcing and traceability.

Benefits:

- Optimize inventory management: Stay in control of stock levels and avoid shortages or overstocking.
- Centralize distributor information: Streamline communication and access real-time pricing and product availability.
- Improve data accuracy: Eliminate redundant data entry and ensure consistency across all tables.
- Boost operational efficiency: Spend less time on administrative tasks and more time serving patients.

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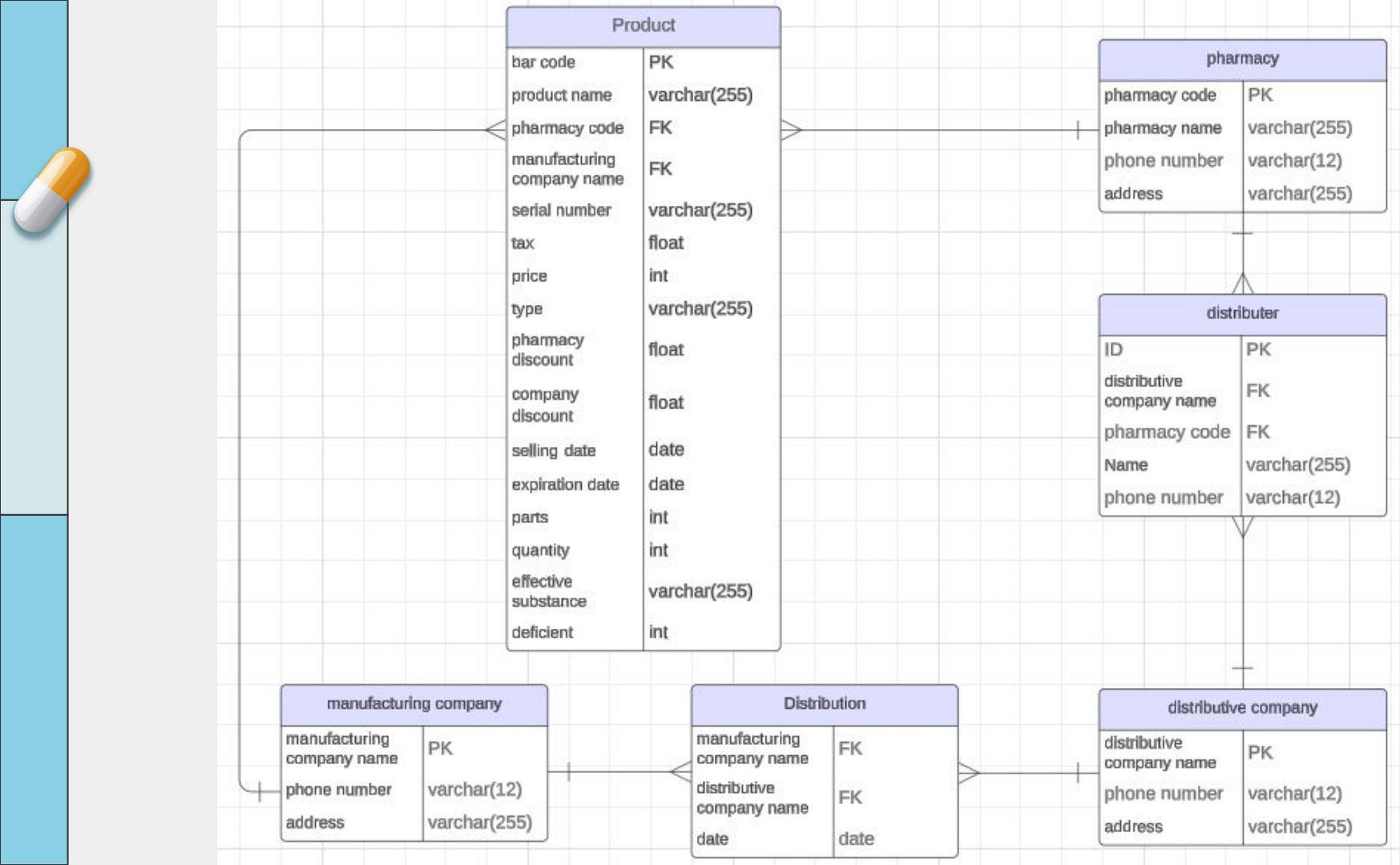
ERD


Product
bar code
PK
product name
varchar(255)
pharmacy code
FK
manufacturing company name
FK
serial number
varchar(255)
tax
float
price
int
type
varchar(255)
pharmacy discount
float
company discount
float
selling date
date
expiration date
date
parts
int
quantity
int
effective substance
varchar(255)
deficient
int
pharmacy
pharmacy code
PK
pharmacy name
varchar(255)
phone number
varchar(12)
address
varchar(255)
distributer
ID
PK
distributive company name
FK
pharmacy code
FK
Name
varchar(255)
phone number
varchar(12)
manufacturing company
manufacturing company name
PK
phone number
varchar(12)
address
varchar(255)
Distribution
manufacturing company name
FK
distributive company name
FK
date
date
distributive company
distributive company name
PK
phone number
varchar(12)
address
varchar(255)

02

SQL

```sql
CREATE TABLE pharmacy(
pharmacy_code int PRIMARY KEY,
pharmacy_name varchar(255),
phone_number varchar(12),
address varchar(255)
);
```

```sql
CREATE TABLE distributive_company(
distributive_company_name varchar(255) PRIMARY KEY,
phone_number varchar(12),
address varchar(255)
);
```

```sql
CREATE TABLE distributer(
ID int PRIMARY KEY,
distributive_company_name varchar(255),
pharmacy_code int,
Name varchar(255),
phone_number varchar(12),
FOREIGN KEY(distributive_company_name) REFERENCES distributive_company(distributive_company_name) ON UPDATE CASCADE ON DELETE CASCADE,
FOREIGN KEY(pharmacy_code) REFERENCES pharmacy(pharmacy_code) ON UPDATE CASCADE ON DELETE CASCADE
);
```

```sql
CREATE TABLE manufacturing_company(
manufacturing_company_name varchar(255) PRIMARY KEY,
phone_number varchar(12),
address varchar(255)
);
```

```
CREATE TABLE Product(
bar_code varchar(255) PRIMARY KEY,
product_name varchar(255),
pharmacy_code int,
manufacturing_company_name varchar(255),
serial_number varchar(255),
tax float,
price int,
type varchar(255),
pharmacy_discount float,
company_discount float,
selling_date date,
expiration_date date,
parts int,
quantity int,
effective_substance varchar(255),
deficient int,
FOREIGN KEY(manufacturing_company_name) REFERENCES manufacturing_company(manufacturing_company_name) ON UPDATE CASCADE ON DELETE CASCADE,
FOREIGN KEY(pharmacy_code) REFERENCES pharmacy(pharmacy_code) ON UPDATE CASCADE ON DELETE CASCADE
);

```

```
CREATE TABLE Distribution(
manufacturing_company_name varchar(255),
distributive_company_name varchar(255),
date_ date,
FOREIGN KEY(manufacturing_company_name) REFERENCES manufacturing_company(manufacturing_company_name) ON UPDATE CASCADE ON DELETE CASCADE,
FOREIGN KEY(distributive_company_name) REFERENCES distributive_company(distributive_company_name) ON UPDATE CASCADE ON DELETE CASCADE,
PRIMARY KEY(distributive_company_name,manufacturing_company_name)
);
```

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Data

barcode	product name	ph_code	mancn	serial num	tax	price	type	ph_disc	compdisc	sellingdate	expdate	parts	quantity	effsub	deficient
486532	catafast	527895	novartis	12258	0.20	51	sachets	0.05	0.1	12/11/2023	15/2/2025	9	50	diclofenac	0
51283546	fucidin	524562	delta	14526	0.1	30	cream	0	0.1	12/12/2023	18/12/2027	1	70	fuicific	0
51442836	fucicort	52456562	delta	714526	0.1	45	cream	0	0.1	13/12/2023	18/12/2028	1	70	cortison	0
51284436	123	5245682	delta	7414526	0.1	60	syrup	0	0.1	14/12/2023	18/12/2029	1	70	jkiy	0
5125836	nexium	5274562	delta	1458626	0.1	120	tablets	0	0.1	15/12/2023	18/12/2030	2	70	nhj	0
51283676	vatika sha	52854562	novartis	14555526	0.1	110	shampoo	0	0.1	16/12/2023	18/12/2031	1	5	hon	2
53676	panadol	5267998	novartis	87890	0.2	80	tablets	0.05	0.1	16/12/2023	16/12/2028	3	40	diclofenac	0
123338	congestal	5278901	motaheda	789089	0.1	90	tablets	0.07	0.1	17/12/2023	17/12/2028	3	20	nhj	10
789789	123	52389790	delta	7189708	0.1	60	capsules	0.01	0.1	18/12/2023	18/12/2028	2	40	jkiy	0
7767056	centrum	5287998	delta	785109	0.1	140	tablets	0.02	0.1	19/12/2023	19/12/2028	1	3	vitamin	0
4277676	flagile	52768899	motaheda	78099782	0.1	70	tablets	0.02	0.1	20/12/2023	20/12/2028	2	10	pnn	5
5177056	zyrtec	5265230	motaheda	78521741	0.1	90	syrup	0.01	0.1	21/12/2023	21/12/2028	1	5	alg	0

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Queries

Find the quantity of every product which its type is cream

Query:

```
1 SELECT product_name,quantity FROM product WHERE type='cream';
2
```

output:

		product_name	quantity
☐	Edit Copy Delete	fucidin	70
☐	Edit Copy Delete	fucidin	70

Find the names of the products lacking in the pharmacy

Query:

```
1 SELECT product_name FROM product WHERE deficient>0;
2
```

output:

←T→	product_name
Edit Copy Delete	vatika shampoo

Find the names of the products manufactured by Delta company

Query:

```
SELECT DISTINCT product_name
FROM product
LEFT JOIN manufacturing_company
ON product.manufacturing_company_name = manufacturing_company.manufacturing_company_name = "delta";
```

output:

product_name
congestal
flagile
catafast
vatika_shampoo
zyrtec
panadol
nexium

Thank you