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## Computer Science Department

## Database Systems 333

Idea for Pharmacy database

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## Summary

A database designed for a pharmacy to organize pharmacy products’ details, ordering and selling drugs. Our project will give him the ability to inquiry for information smoothly.

## Introduction

Our client is a pharmacist, Yahya Al-Khawaja, who owns a pharmacy named Al-Baraka located on Shoqba-Ramallah. On his daily work, he faced many challenges including:

* Checking the expiry date for each drug manually.
* Checking the last time a patient bought a specific drug.
* Controlling patients’ depts.
* Keep track on drug suppliers’ cheque.
* Having a problem doing inventory due to the scattered information.

These challenges consume time and effort. Our database should help him managing his business with less time and effort.

## Data Requirements

* Products are identified by Product ID, and Product Name, manufacturer, and price. Each product has only and only one manufacturer.
* Drugs are products have a scientific name, risk pregnancy categories, pharmaceutical dosage form (e.g., liquid, gel, pill ...), drug category (e.g., Antibiotics, Antacids), dosage, and Drug Pharmaceutical Category(Danger, Controlled, non,..).
* Each of the products are recorded such as the production and expiry date and amount. Note that a product might have more than one record when having different details.
* Employees are identified by Employee ID, and name, national ID, date of work, paid amount per hour, hourly paid, and mobile phone. Moreover, The employee can be an active or inactive employee.
* Each employee can has many phone numbers.
* Number of hours worked per month and paid amount for each employee is recorded.
* Manager is an employee who deals with suppliers and payments issues, including paying for taxes, orders, employees’ wages and disposing products.
* Suppliers are identified by Supplier ID, and name, phone number, email, and address. Dues for each supplier must be recorded.
* Each supplier can has many phones.
* Customers are identified by their National ID, and name and phone. Debts for each customer must be recorded. Each customer can has many phones.
* Taxes are identified by Tax ID, and value, and date. Taxes are paid by the manager.
* Cheques are identified by Cheque ID, and bank name, date of writing the cheque, due date of cashing the cheque, and cheque value.
* Payments are identified by Payment ID, paid amount, date of payment, and paying method.
* Suppliers orders are identified by Order ID, and date of order, price, discount, and due date for payment. Each of these orders has a batch with details of all products of the order.
* A manager is responsible of ordering from suppliers and paying for them. Each order are recorded after receiving it in supplier order batch with details of all products.
* Any employee can receive an order.
* Each sold product (including drugs) must be recorded along with the employee who sold it, the date of selling, the sold quantity and the discount. Regular customers and customers who bought dangerous drugs or bought in credit are recorded too.
* Each customer order are recorded in details as order batch. We record batch information and the amount bought.
* Each orders’ income are recorded with the employee who received the money, the date of paying, the paid amount, and the customer who paid.
* An order may include one or more product. And a product can be included in more than one order.
* Paying for debts can be using either cheques or cash. A debt can be paid in multiple payments.
* A Products’ batches may be disposed by the manager. Each disposing is identified by disposal ID, and amount and date of disposing. Each disposing operation has a cost to be paid by the manager.

## ER Diagram

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## Technology

Processor: i3-G9   
RAM: 16Gb  
SSD: 500 Gb  
Operating system: Windows 10 64-bit.  
Database System: MySQL  
programming language: Java