

# CSCE 5350 004

# FUNDAMENTALS

# OF DATABASE

# SYSTEMS

# GROUP-8

## **PROJECT DESCRIPTION:**

In this project we are creating a database for a National Pharmacy Company. This Company buys drugs from manufacturers and sells them in their stores.

For such a company which operates on a national scale we require to store so much information about various things. We need to store the information about their stores, warehouses, the employees that work there, the patients that visit the stores, the various drugs that are stored at warehouses and sold at the stores. All this information is crucial to the working of the Company. This data can be used to gain information about the sales of a particular drug, keep an eye on the inventory, manage the employees etc.

To create and store such information we need to know what types and how the information should be stored. Hence, we require a database with a good design. To design a database, we need to know about every piece of information that we will be storing in the database, how they are related to each other and how many types there are. So, we need to do a requirements analysis.

After researching on what information that such a database should contain our group decided to include the following:

**Stores:** Store Id, Address, Manager, Assigned Pharmacist, Assigned Doctor, Region Code

**Warehouses:** Warehouse Id, Address, Warehouse Manager, Current Stock, Capacity, Region Code

**Region:** Region Name, Region Code, Region Manager, Building ID

**Employees:** EID, Name, SSN, Age, Gender, Address, Ph NO, Wage, Type, Location, Bank Account Number

**Patients:** PID, Name, Age, Gender, Ph NO, Address, SSN, Insurance Num

**Insurance:** INM, Name of Insurance, PID, Amount, Date Claimed, Status

**Drug:** Drug ID, Name, Price, Drug Type, Dosage, Manf By, Manf Date, Batch NO, Expiry Date

**Inventory:** Drug ID, Building ID, Current Stock

**Logistics:** Import/Export, Good, Date, Warehouse ID, Store ID, Quantity, Status

**Sales:** No of sales per month, Month, Year, Drug ID, Store ID

Two or more Entities that we included above might have a relation between them which might create additional attributes in an entity while creating the tables. Examples of such relations are:

An Employee works in a Store (One to Many)

Store/Warehouse belongs to a Region (One to Many)

Drugs stored in a Warehouse (Many to Many)

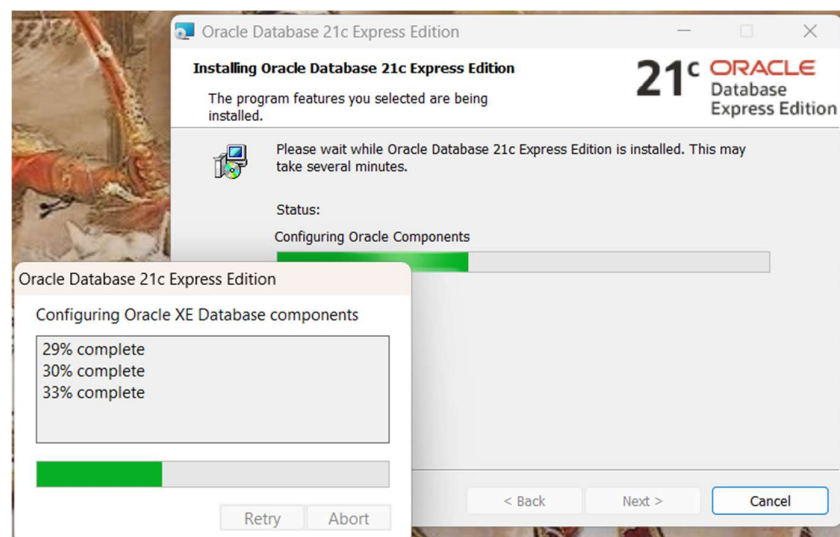
Warehouse supplies drugs to Store (Many to Many)

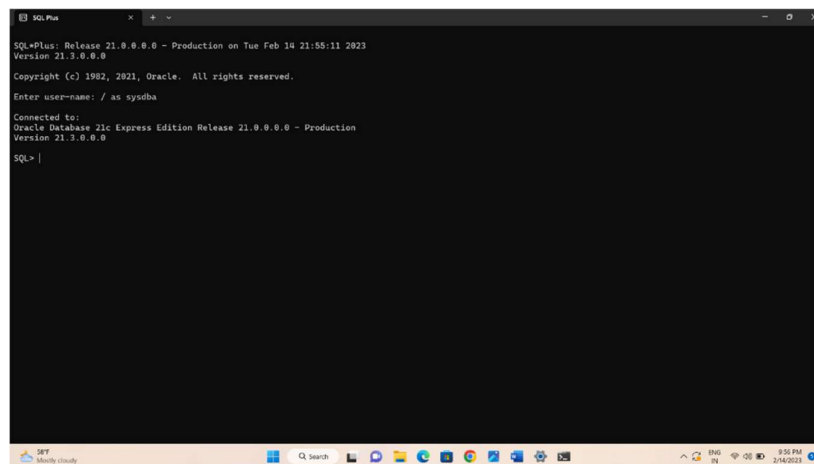
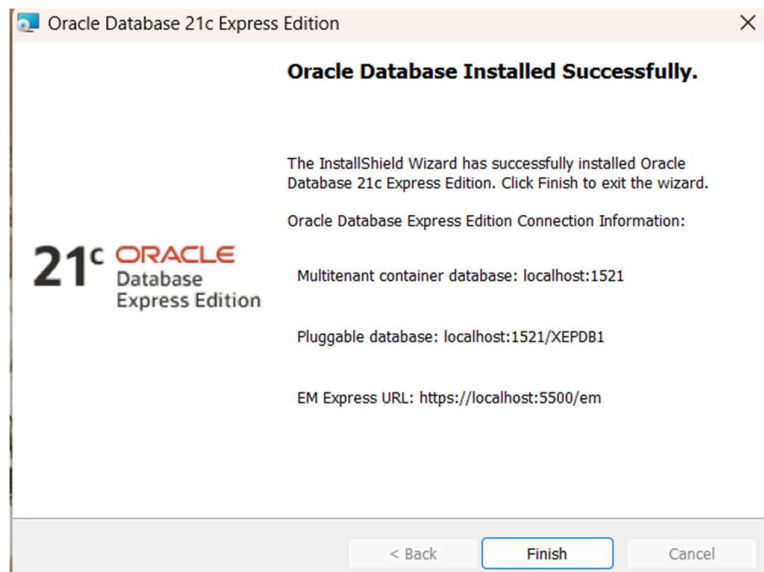
### **Description about the Entities:**

- **Store:** This entity contains all the information about the various stores that sell the medicine. Their location, their assigned manager and pharmacist, and the region it belongs to. The Store Id is the Primary Key for this.
- **Warehouse:** This contains the details about a particular warehouse of the company. Its location, capacity, current stock quantity, the region, and the manager. Warehouse Id is the Primary Key.
- **Region:** This entity is used to ease the management of various stores and warehouses. It contains all the IDs of the stores and the warehouses that belong to a particular region and about the manager. In this Building ID is a multi-valued attribute which contains the IDs of the stores and warehouses. The Region Code is the Primary Key.

- **Employees:** This entity consists of all the information about the people who work in the company. Their basic information, contact details, position, wage, and banking information. Employee Id (EID) is the Primary Key.
- **Patients:** It contains the details about the customers of the company. Their basic information, contact information and their insurance details if any. Patient ID (PID) is the Primary Key.
- **Insurance:** This entity contains information about a patient's insurance so that it can be used to settle the claims. It contains the insurance number, name and amount claimed with date. Insurance Number (INM) is the Primary Key.
- **Drug:** This is the most important entity. This contains all the information about the various drugs that are dealt by the company like drug name, price, manufacture company etc. Drug ID is the Primary Key.
- **Inventory:** This is used to keep track of the stock of the medicines that are dealt with by the company. This stores how much quantity of a particular drug is left at a particular location. The Building ID can be either Store ID or Warehouse ID. Drug ID together with Building ID will be the Primary Key.
- **Logistics:** This keeps information about the various movements of goods in the company. This is used to know what order a particular warehouse placed (import) or what drug a warehouse is sending to a store (export).
- **Sales:** This is used to get data about how well a particular drug is performing (selling). This reveals to us the information about the market and can be used to design market strategies.

## ORACLE DATABASE INSTALLATION:





## Individual Contribution:

In this phase everyone had their own ideas and so we decided that each member must come up with two entities on their own and about their attributes such that it satisfies the theme of the project and the requirements mentioned. I came up with the Entities: Drug and Logistics and the relation Drug stored in Warehouse mentioned above.

Each person has typed the description of entities that they came up with on their own. So, the description about Drugs and Logistics are given by me. Lastly this document was prepared by me.

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