Universidad Autónoma de Zacatecas

Academic Unit of Electrical Engineering

Software Engineering Academic Program

Group: 5B - Semester: 2022-5º

Practice Number: 03

Practice Name: DDL

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DDL

September 1st, 2022

1. Introduction

Data Definition Language (DDL) is a subset of SQL. It is a language for describing data and their relationships in a database. You can generate DDL in a database object script to:

- Keep a snapshot of the database structure.

- Set up a test system where the database acts like the production system, but contains no data.

- Produce templates for new objects that you can create based on existing ones.

DDL statements are used to describe a database, to define its structure, to create its objects, and to create the subobjects of the table. You can make changes to a rule set after you create it.

Today's database industry embeds DDL in any formal language that describes data. However, it is considered a subset of SQL (Structured Query Language). SQL often uses normal English imperative verbs as sentences to implement modifications to the database. Therefore, DDL does not appear as a different language in an SQL database, but it does define changes to the database schema.

2. Practice objective

Review the notion of Oracle DDL statements creating other types of object.

3. Developing

Activity 1: You should define a problem statement about a topic of interest (a brief description). Write it as part of the activity 1.

"A hospital wants to have the data of its patients and its staff (assistants) as well as the doctors who work in the hospital. In this hospital you want to keep a record of the appointments and consultations that are made throughout the days".

Activity 2: The problem statement of activity 1 will be passed to you (from another classmate). With this problem statement, you should be able to generate the ER diagram.

"A candy store needs to manage the sale of candy to wholesale customers. These candies are from multiple brands; It is required to show on each package the amount of sugar it contains, the category of the candy, and the amount of candy per package".

Based on the previous statement, which my colleague Carlos Eduardo Olvera Mayorga passed on to me, I made the entity-relationship diagram shown in **figure 1**.

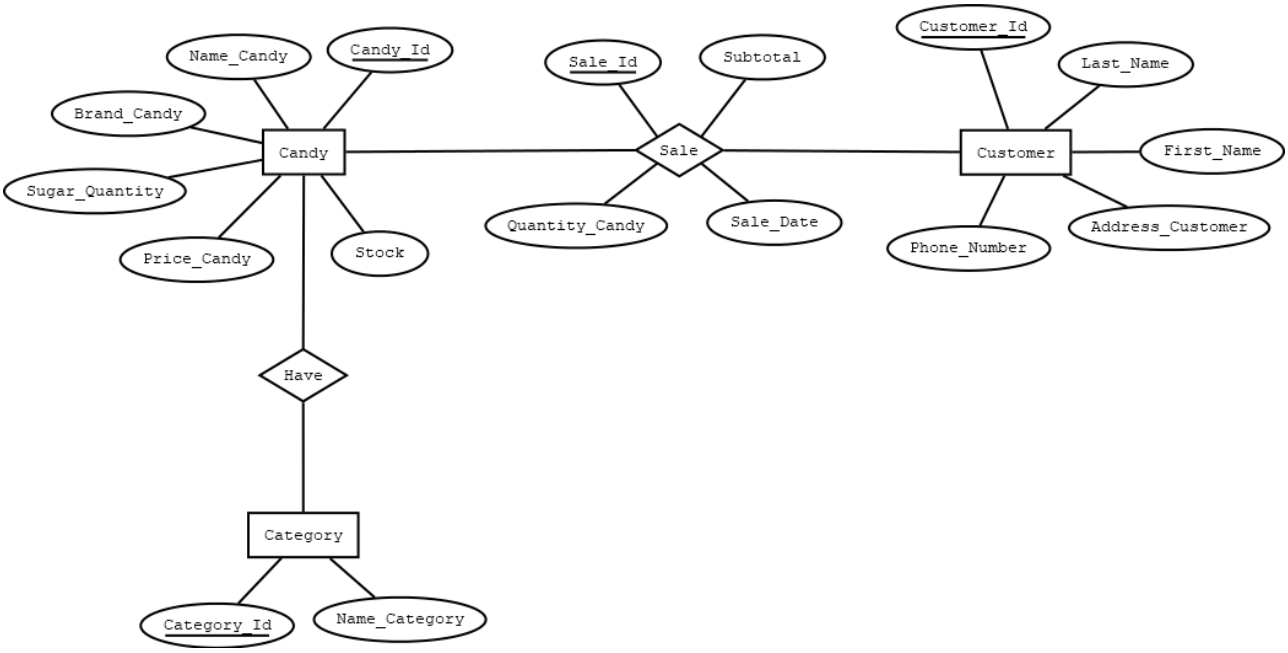

Figura 1: *Entity-relationship diagram of activity two*

Activity 3: The ER diagram of activity 2 will be passed to you (from another classmate). With this ER diagram, you should be able to generate the relational diagram by using "Dia" software, for example.

Figure 2 shows the entity-relationship diagram that my colleague Jared Alexis García Contreras gave me, this diagram was used to create the relational model shown in **figure 3**.

In the relational model I made a small correction since the **stock** entity could go as an attribute of the product entity and not as a weak entity.

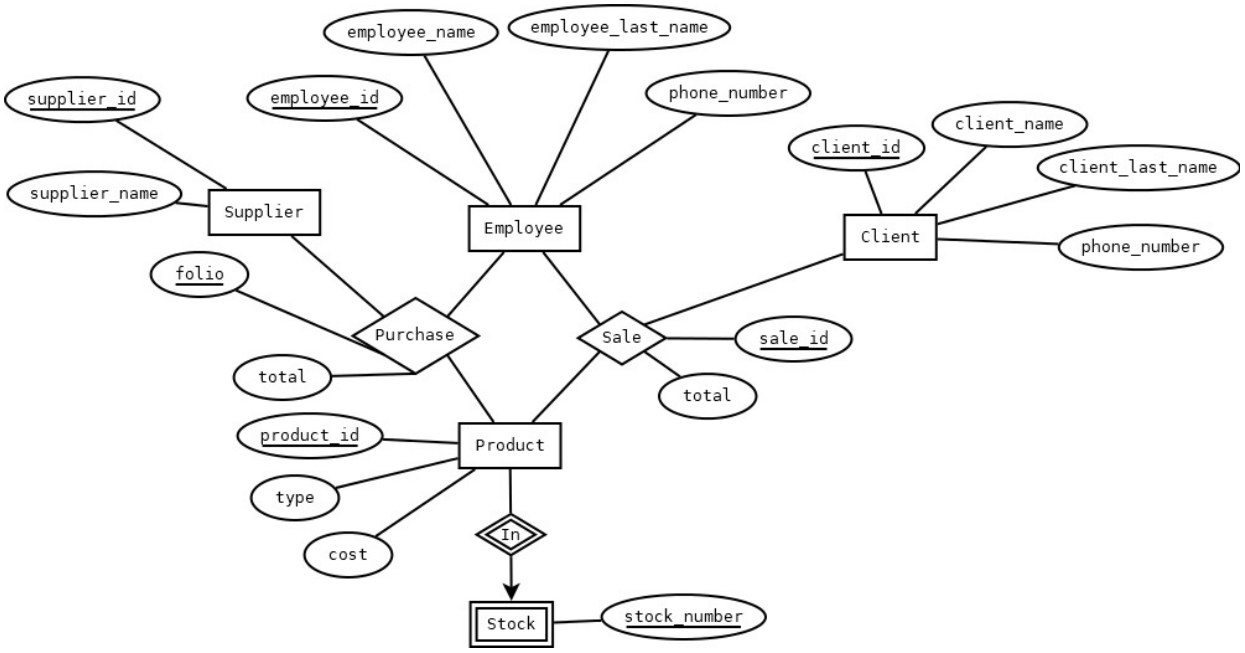

Figura 2: *Entity relationship diagram*

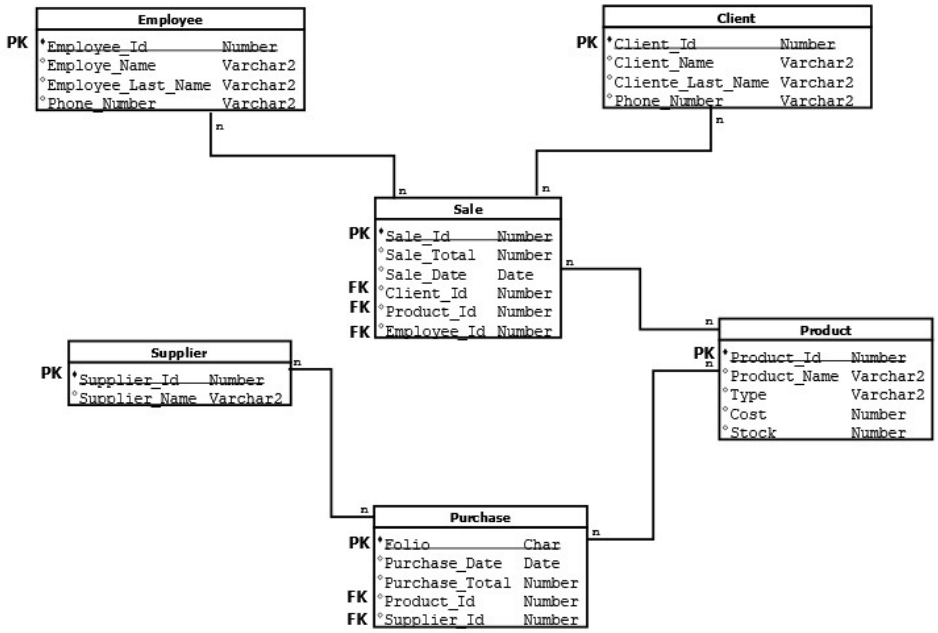

Figura 3: *Relational model*

Activity 4: The relational diagram of activity 3 will be passed to you (from another classmate). With this relational diagram, you should be able to generate the Oracle DDL sentences. With these tables, you should automatically generate the physical diagram in DATA MODELER (dragging the tables). Compare this diagram with the relational model made by Dia

My colleague Alan Martín Romo Aréchiga gave me the relational model shown in **figure 4**.

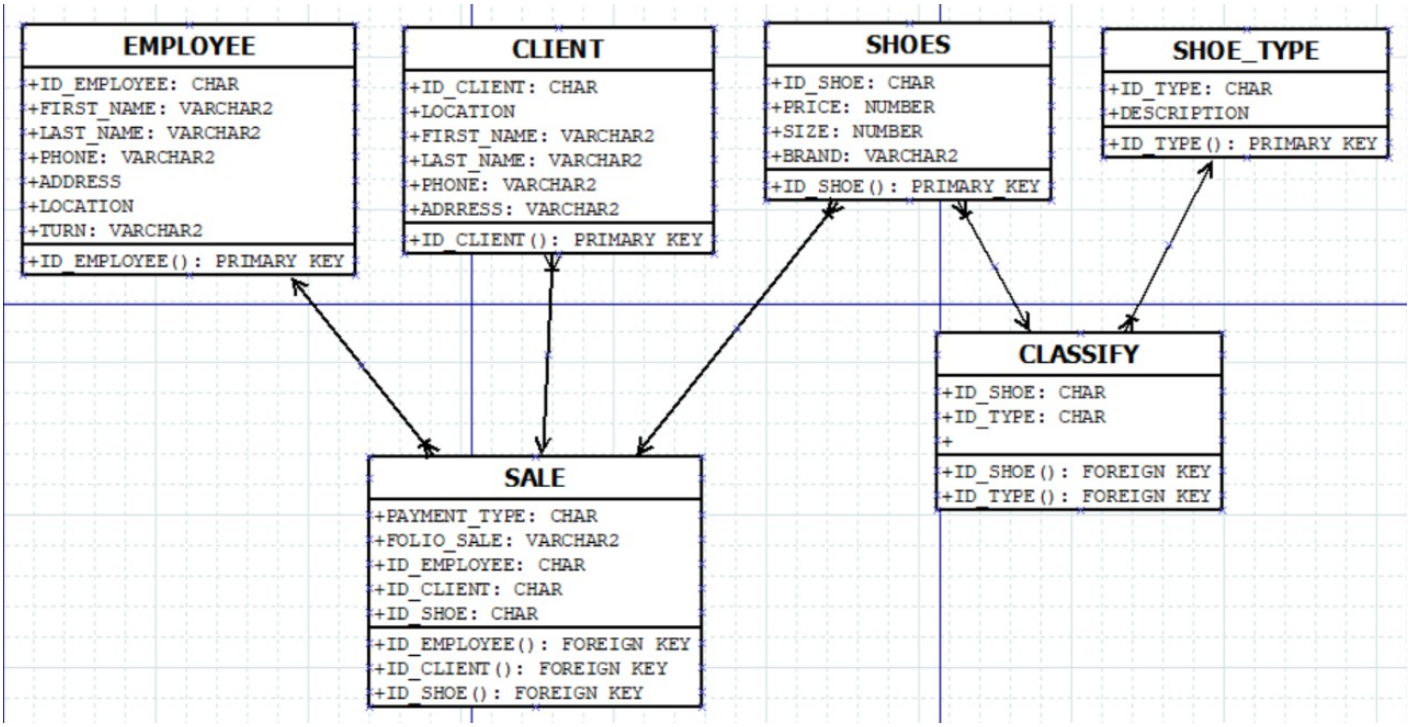

Figura 4: *Relational model*

Based on the previous relational model, the following DDL statements were created to create the tables. See **figure 5 and 6**.

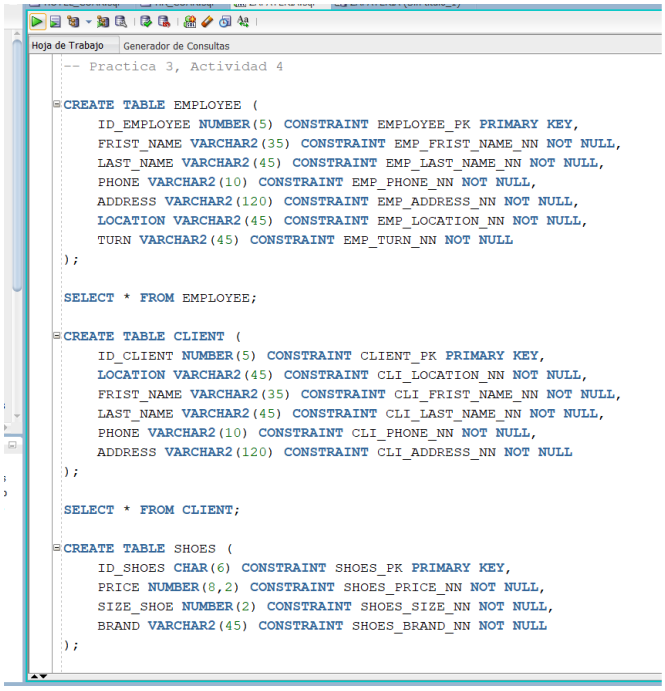

Figura 5: *Activity Four DDL Statements*

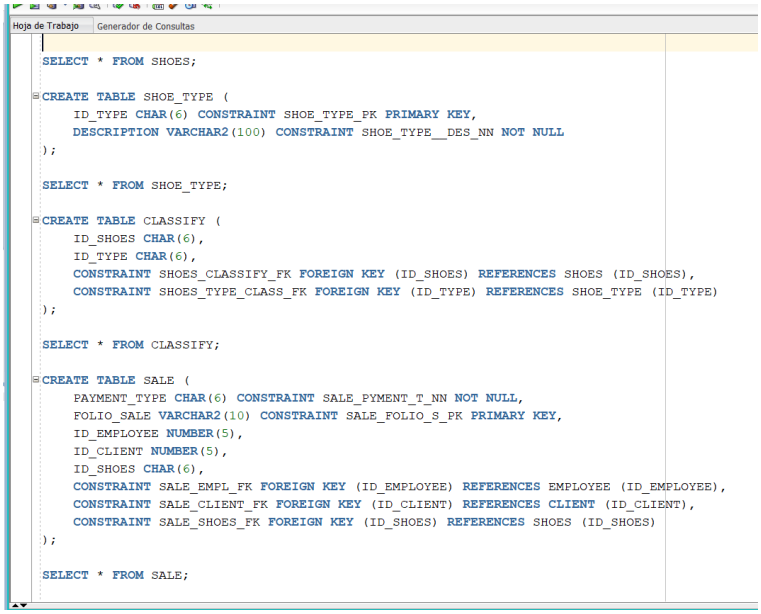

Figura 6: *Activity Four DDL Statements*

Figure 7 shows the automatically generated relational model in SqlDevelop.

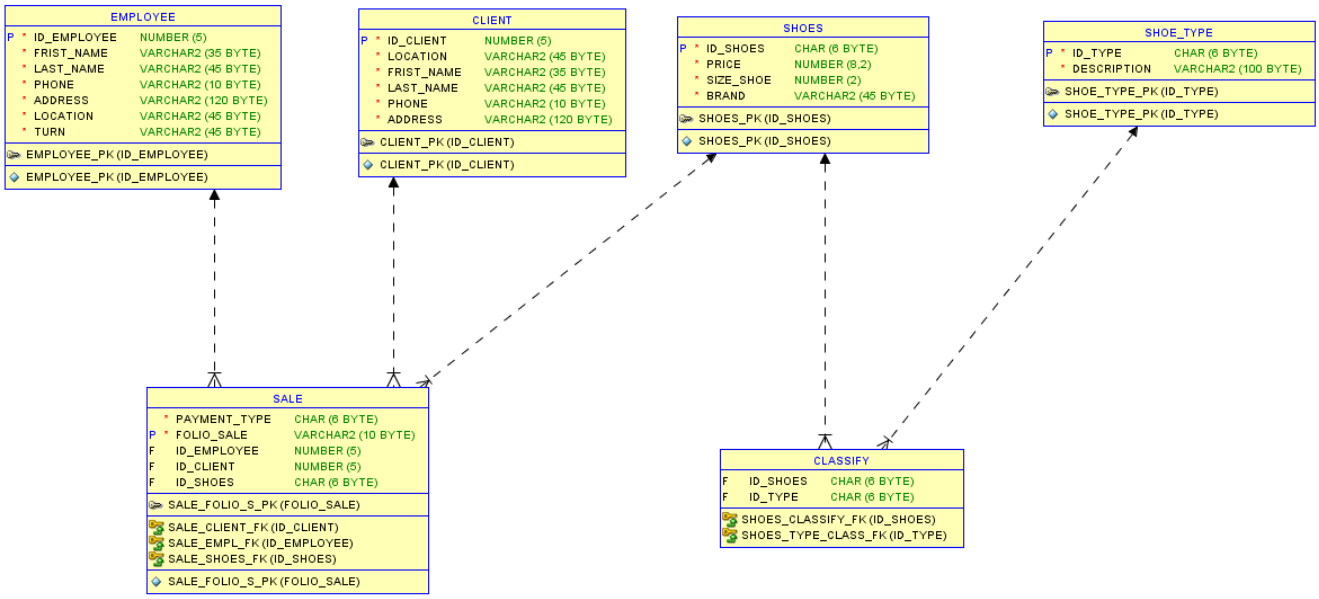

Figura 7: *Relational model in DATA MODELER*

4. Pre-assessment

In this section you will find the Pre-assessment

Criteria to be evaluate	Does it comply?	(%)
COMPLIES WITH THE REQUESTED FUNCTIONALITY	YES	
HAS THE CORRECT INDENTATION	YES	
HAS AN EASY WAY TO ACCESS THE PROVIDED FILES	YES	
HAS A REPORT WITH IDC FORMAT	YES	
REPORT INFORMATION IS FREE OF SPELLING ERRORS	YES	
DELIVERED IN TIME AND FORM	YES	
IS FULLY COMPLETED (SPECIFY THE PERCENTAGE COMPLETED)	YES	100 %

5. Conclusion

The Oracle DDL language is transcendental in the handling of SQL statements at the level of both administrator and database programmer, since it allows the definition of database schemes regardless of the platform used to generate it.

This practice was very important for me since it helped me to remember and reinforce my knowledge in the use of DDL statements.