

Study stream : Computer Science
Level: 2nd Year Bachelor's Degree
Module: Information Systems
Instructor: Dr. Bouneb M.

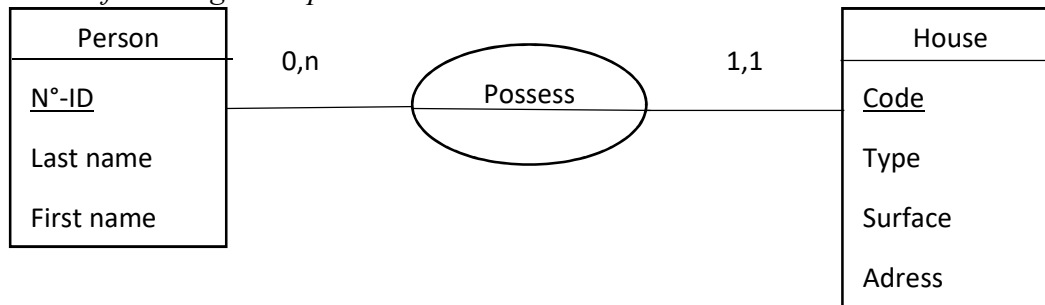
Practical work N°05

Objectives:

- ✎ Master the creation of a script for the database using PowerDesigner.***
- ✎ Master the direct generation of an Access database using PowerDesigner.***
- ✎ Maintain database schemas using reverse engineering.***

Exercise N°1:

Let the following conceptual data model be:



Question :

1. Draw the CDM using PowerDesigner.
2. Save the CDM.
3. Automatically generate the corresponding LDM.
4. Save the LDM.
5. Automatically generate the corresponding PDM.
6. Save the PDM.
7. Generate an SQL script for the Access database based on this model. To do this:
 - Configure a connection.
 - Connect your database.
 - Generate the database as an SQL script.
8. Now, directly generate your Access database.
9. Open your Microsoft Access database and verify your tables.
10. Now, we show how to generate the PDM from a script SQL. Now close the workspace and follow these steps:
 - Click on **File** and then **Reverse Engineer**.
 - Click on **Database**.

- Choose a name for the physical model.
- Select the **DBMS (Database Management System)**: MSACCESS2000.
- Select **Using script file** (choose the SQL file from which you will generate the PDM).
- Click **OK**.

Exercise N°2 :

We take the exercise of lab serie N°3. We are interested in the stock management system of a company with multiple stores. In the company's stores, products are managing and identifying by their reference number, description, unit sale price, and quantity in stock. A product can be in stock in several stores, where each store is identifying by an internal code and an address. In case of stock depletion, a numbered and dated command is placing with suppliers for replenishment. A product is sold by one or more suppliers, and a supplier is characterizing by a number, a name, and an address.

Question :

1. Draw the CDM using PowerDesigner.
2. Save the CDM.
1. Automatically generate the corresponding LDM.
2. Save the LDM.
3. Automatically generate the corresponding PDM.
4. Save the PDM.
5. Directly generate your Access database.
6. Open your Microsoft Access database and verify your tables.
7. Generate test data for your database.