Database
Session 5

1. OBJECTIVE

1. Understand what a view is and relate it to the levels of the ANSI / SPARC architecture.
2. Learn to make simple queries from more than one table.
3. Import data from Excel to tables of the DB.

2. AUTONOMOUS WORK

Previous Preparation (Recommended): Review the introductory transparencies in Session4_BasicERDesign2.pdf

3. MATERIALS

Theory: Session4_BasicERDesign2.pdf
Practices: TutorialCreateViewDataModeler.pdf, ViewSales.xlsx, model_super.zip

4. ACTIVITIES

Exercise 1

Create a View (Sales) on the Supermarket DB showing sales made. The view should contain: the box in which it was made, the date of the ticket, the product barcode, the name of the product, the price / unit of the product, the units purchased, the total cost for each purchased product (calculated using the formula (price / unit) * units). The aliases of the columns will be: Cashier, SalesDate, Barcode, Product Name, PriceUnit, ProductUnits, TotalProductPrice.

To do this exercise, follow the manual for creating views using DataModeler for SQLDeveloper creation.

Answer and discuss the following questions:

4.1.1. What is the SQL query that generates the view?
4.1.2. How many related tables does the information come from?
4.1.3. At what level of the ANSI / SPARC architecture are we at?
4.1.4. Can I update the view values from SQLDeveloper?
4.1.5. What problem do you detect if we leave any of the relations of FK →PK (joins) in the query? Is the information displayed correct?

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Exercise 2

Imports the data from an excel view (ViewSales.xlsx) to the corresponding tables in the database.

Steps:

1. Create the table's product, ticket and sale using the SQL obtained by the DataModeler from Exercise 1.
2. Create a table (importexcel) in SQLDeveloper (without primary key) with the same fields and same order as the view in excel. The data types will be the same as we have in the supermarket tables.
3. Import the data from the excel file to the table created in step 1 (right click on the table -> import data).
   Execute the inserts made through the query we provide (insertsFromView.sql).
   Note: Modify the attribute names by the names that you defined in the importexcel table.
4. In what order are you filling the tables?
5. Open the file insertsSales.sql and execute the script table by table.
6. Did you get an error? What was the reason? How you solve it?