RELATIONAL DATABASE

BASIC KNOWLEDGE

About the concepts behind it. Query a Data Base using SQL Language. A gift for the WeDo.

TYPES OF DATA

varchar

in

double, float, real

date

binary

time

SOFTWARE INSTALL

DBForge Studio

MySql Server

SQL Statements

SELECT

- Select the column of the table that you want to search.

FROM

- Select the table that you want to search.
  - ⇨ SELECT * FROM table_name;

WHERE

- Select the conditions to filter specific values. Two different ways to attribute values and a wild card to filter data (filter).
  1. =
  2. LIKE
  3. %

  - ⇨ SELECT * FROM name_table WHERE column_table = value;
  - ⇨ SELECT * FROM name_table WHERE column_table LIKE value;
  - ⇨ SELECT * FROM name_table WHERE column_table LIKE %xxx%;

ORDER BY

- It will define the order that the table will present the data.
  ⇨ SELECT SUM(valor) AS TOTAL, nome AS NAME
  ⇨ FROM compras
  ⇨ GROUP BY nome;

INNER JOIN

- It will allow the query to search in more than one table, from values that exists in both tables.
- Comparing the PRIMARY/FOREIGN key of the tables that we want to join.
- Inner join only shows what both tables have in common (intersect of both sets)
  ⇨ SELECT P.pro_nome, I.itens_qtd
  ⇨ FROM mercado_v2.itens AS I
  ⇨ INNER JOIN mercado_v2.produtos AS P
  ⇨ ON I.itens_id = P.pro_id;

SQL in General (more statements)

SHOW

- It will show all data base/table that exist in this server.
  => SHOW DATABASES;
  => SHOW TABLES;

USE

- Allow me to use a specific data base.
  ⇨ USE NAME_OF_DATA_BASE;

CREATE

- It will create a new data base/table in the server.
- Need to specify the parameters.
  ⇨ CREATE DATABASE name_database;
  ⇨ CREATE TABLE name_table (ex1 INT(11), ex2 VARCHAR(30));

DESCRIBE

- It will allow me to show a description of tables in a data base;
  ⇨ DESCRIBE name_table;

INSERT

- It will populate the data base with values
- Keywords: INSERT, INTO, VALUES.
    - ⇨ INSERT INTO name_table (column1, column2, columnN) VALUES ('ex1', 'ex2', 1);

DROP

- It will eliminate the database/table.
    - ⇨ DROP TABLE name_table;
    - ⇨ DROP DATABASE name_database;

TRUNCATE

- It will allow the deletion of data in a table (not the table itself)
    - ⇨ TRUNCATE TABLE name_table;

SQL using CMD (command line)

In General

- In folder 'img', there are prints from the cmd, where it was used some of the commands above. Without the need of the interface DBForge or MySQL Workbench.

SQL funtions

SUM

- It will give the total values for a certain ID in a column
    - ⇨ SUM(valor_add)