

Database Project

Innovative products

1. Installation of one of the following tools:
 - a. <http://sqlitebrowser.org/>
 - b. <https://sqlitestudio.pl/>
 - c. Other tools are available ...
2. To be sent to ajaffal@esiee-it.fr before Thursday January at 6 11:59 pm:
 - a. Your database file for the Innovative Products exercise, i.e. the DB of all relationships with data filled in by you
 - b. A txt file that contains :
 - i. The SQL queries you used to create the tables (CREATE TABLE)
 - ii. SQL queries to fill all tables with data useful to answer questions (INSERT INTO)
 - iii. The SQL queries you used to answer the questions with your results
3. Note: everyone will have to make their own database with their own data and SQL queries.

Information about innovative products, designed by researchers and covered by one or more patents, was stored in a database.

Researcher (NSS, name, dateNaiss,
nationality) **Product** (Nprod, nameProd,
price, category) **Patent** (Nbrev, title, date,
country)

Invention (Nbrev, Nprod)

Owner (Nbrev, NSS)

Primary keys are underlined by a solid line, foreign keys by dotted lines.

A researcher is identified by his or her social security number, and is the owner of at least one patent and possibly several.

Each patent, identified by a patent number, is valid in a specific country. A patent may apply to several products, and conversely, a product may be the subject of several patents.

A product is identified by a product number, and belongs to a category (for example: electronics, decoration, cosmetics, etc.).

Dr. Ali JAFFAL - ESIEE [it] school of the CCI Paris Île-de-France



Part A:

1. SQL queries to create tables (CREATE TABLE ...)
2. SQL queries to fill all tables (INSERT INTO ...)

Part B:

1. Names of all researchers, sorted alphabetically
2. Product names, sorted alphabetically
3. The title and dates of the patents with the name of the owner.

Part C:

1. Name of the cosmetic products with a price higher than euros,200 having been the subject of at least one patent¹
2. Name of researchers who contributed to decorative or cosmetic products
3. Names of researchers who contributed to both decorative and cosmetic products
4. Nationality of researchers who filed only US patents (USA)
5. Names of researchers who contributed to all the DIY products
6. Title of the youngest researcher's patents
7. Number of patents filed by the Trouverien researcher
8. Name and price of the cheapest product(s) protected by a French patent, sorted in alphabetical order
9. Average price of products in each category, for categories with more products⁷