

# Data Management for Business Intelligence:

## 2020 Project (in groups)

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# DMBI Project

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Solve 3 of the next exercises by using both:

- An SQL query (possibly, with analytic functions)
- A SSIS package
  - All the work must be done in SSIS, not just by means of an (analytic) SQL query

# DMBI Project

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**Problem 1.** A sale was done during a travel if the store of the sale was not in the city of residence of the customer. It is required to produce a CSV with a row for every customer and her/his percentage of sales done during travel over the total sales of the customer.

**Problem 2.** The frequency of purchases in weekends (FPW) is the number of distinct weekend days (Saturdays or Sundays) in which the customer made a purchase. It is required to produce a CSV with a row for every customer his/her FPW.

# DMBI Project

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**Problem 3.** The quarter value QV of a customer id  $C$  at the date id  $T$  is the sum of revenues minus costs of the products that the customer  $C$  buys in the quarter of  $T$ . It is required to produce a CSV file with three columns: customer id, time id, QV.

**Problem 4.** A product id is female-specific if the number of distinct women customers who bought the product is at least 1.5 times the number of distinct male customers who bought it. It is required to produce a CSV with all female-specific product id's.

# Project delivery

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Send an email to [ruggieri@di.unipi.it](mailto:ruggieri@di.unipi.it) with

- A single .zip with a directory for each problem
- A short document (max 5 pages) describing your solutions

Deadline: 6 March 2020 h. 8:59