Business Intelligence Lab

Written exam 5/2/2014

Deliver results within 3 h from start time

Notice: use your own SQL Server credentials (the lbi account is disabled)

Exercise 1 (8 pts). Consider the hierarchy in the `product_class` table of the *foodmart* database. Write a Java program ParentChild.java which outputs the hierarchy in parent-child format.

What to deliver: ParentChild.java, myJDBCdef.props (with only the parameters needed for a test of the program)

Exercise 2 (8 pts). Consider the hierarchy in the `product_class` table of the *foodmart* database. Develop a SSIS package that outputs the hierarchy in parent-child format.

What to deliver: BIDS/SSDT solution.

Exercise 3 (8 pts). Write a MDX query to output association rules

$$A \rightarrow B \text{ [supp] [conf]}$$

where A is any member of the `[Product].[Marketing]` hierarchy, B is any member of the `[Store].[Geography]` hierarchy, supp is the support of the rule, conf is the confidence of the rule, and conf $> 10\%$.

What to deliver: MDX query and a brief comment about it, a PowerPoint file with the screenshot of the MDX query result.

Exercise 4 (8 pts). Consider a training set containing two correlated attributes. How does a decision tree classifier deal with such a case? Use the `census` dataset and the J48 decision tree in Weka for explaining your answer.

What to deliver: a PowerPoint file with the answer to the question and with screenshots of Weka.

How to deliver: send an e-mail with a single <your surname>.zip file attached to ruggieri@di.unipi.it, including your name, surname, student ID, and computer IP address (http://www.whatismyip.com).

Results and oral exam. Results will be published on-line by today evening. Oral exams will start tomorrow at teacher office.