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Workgroup and Workflow Management Systems-Written Test of Feb. 14th, 2012

Family name _____ First name _____ Politecnico ID # _____

Master Course in _____

Please, fill in this sheet carefully. All answers must be provided on this sheet, which must be returned at the end of the test. No additional sheet will be considered¹.

Rules. The examination is passed if the student obtains at least 13 points out of a total of 25 points available for this test, and the grand total of obtained points, including those obtained with a presentation or a project, is greater than or equal to 18. Use of books, handbooks, lecture notes is not permitted: only the sheets provided by the teacher can be used. All the questions must be answered, at least partially: tests in which even one question has not been answered will not be evaluated. Duration of the test: 2 hours.

Exercises

(1) Describe some criteria to compare the expressiveness of two different notations for business process models, e.g. BPMN and Petri's nets or the Workflow Management Coalition's and the WIDE models.

space reserved to your answer

¹**Remark.** Complete specifications whenever needed. Clarity and order will be taken into account for the evaluation.

(2) The WholeSell reseller offers products to its customer through an online system. WholeSell holds certain parts of the products in stock and orders missing products from its suppliers if necessary.

The customer sends a purchase order request with details about the required products and needed quantities to WholeSell. The latter checks whether all the required products are available in stock and if they are not in stock, WholeSell orders them to the suppliers. If the purchase order can be satisfied, the customer receives a confirmation, otherwise the order is rejected.

If needed, WholeSell waits for the supplier to deliver the required products. When all the products are in place, the warehouse packages the products and hands them over to the shipment service which notifies WholeSell about the shipment. In parallel with the packing and shipment, the payment is performed. For that, the customer decides on the payment style and gives its payment details. WholeSell contacts the banking service which authorized the customer purchase and credits the agreed amount.

Provide a reasonable schema of the outlined process(es), according to the modeling formalisms of WIDE. Please, suitably model all the *pre-conditions* and *post-conditions* of every task.

(3) With respect to the process described in Exercise 2, provide an example of a *business* transaction - and the related compensating transaction - managing the denial of the bank to grant the credit of the customer.

space reserved to your answer - exercise 3

space reserved to your answer - exercise 2

(4) Provide a mapping of the *iterative* join of the WIDE model to the model from the Workflow Management Coalition.

space reserved to your answer

This part for use by the teacher, only.

Ex. 1	Ex. 2	Ex. 3	Ex. 4	Total
4	12	5	4	25
