Workgroup and Workflow Management Systems - Written Test of Jul 4th, 2007

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 considered[1].

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) Synthetically describe the main differences between a **Workgroup System** and a **Workflow Management System**. Provide a practical example where the use of a **Workgroup System** is more convenient, and a practical example where the use of a **Workflow Management System** is more convenient.

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

(2) On-line auction web sites are getting more and more popular. A customer has to register to the site and then he/she is entitled to take part to the auctions. After logging in, the customer has to decide if he/she wants to sell or to buy a good.

In case of a seller customer, the customer enters the description of the good, its features, and the expected timestamp for the end of the action. After the end of the auction, the seller sets up contacts with the buyer, stays waiting for the payment, sends the good and fills in the report form about the buyer.

In case of a buyer customer, the customer logs in, selects the preferred good, browses through available ones, and enters his/her bid. If the bid is not accepted by the system (e.g. the amount is smaller than an already existing bid), the customer can make a new bid or retire.

When the end of the auction is reached, the system sends out a notification both to the seller and to the buyer. The buyer has to send the payment to the seller, stays waiting to receive the good and, finally, fills in the form about the seller.

Provide a reasonable schema of the outlined process(es), according to one of the following modeling formalisms: WIDE model, Workflow Management Coalition model.

(3) With respect to the process model of Exercise **2**, consider the expected exception occurring when the seller withdraws the good from the sale: describe this exception by a Chimera Exception trigger.

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space reserved to your answer - exercise 3
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(4) Describe the most relevant aspects concerning interoperability among several installations of WfMSs from one unique vendor (*distributed architecture*) and among several installations of WfMSs from different vendors (*federated architecture*).

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This part for use by the teacher, only.

Ex. 1	Ex. 2	Ex. 3	Ex. 4	**Total**