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Workgroup and Workflow Management Systems-Written Test of Feb. 4^{th}, 2014

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) Provide an example of an inter-organizational business process, and discuss the difficulties in sharing information during the entire life of a case.

space reserved to your answer

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

(2) The European Railway Company (ERC) wants to assist the conductors when checking the passenger tickets on trains.

A conductor boards the train and registers him/herself in the system. After receiving the authorization and the train number from ERC, the conductor can start checking the tickets. For every occupied seat, the conductor checks if the passenger has a paper ticket or an electronic ticket. Electronic tickets are stored by a suitable database table of ERC, including passenger name, reservation code, travel date, train number, boarding and destination stations.

For every paper ticket, the conductor enters in the system the ticket number, the boarding and the destination stations of the passenger; for every electronic ticket, the conductor enters in the system the reservation code for that passenger, and interviews him/her about the ease of use of the electronic ticket system, storing the evaluation from the passenger. If the passenger has no ticket at all, the conductor issues a paper ticket, including the fine for having boarded the train with no valid ticket.

When the trains reaches its final destination, the conductor logs out from the system, and the process ends.

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 exception that manages the passenger who boarded the wrong train, i.e. the train number on the ticket is different from the train number of the process.

space reserved to your answer - exercise 3

space reserved to your answer - exercise 2

(4) With respect to a business process model, define the concept of independent execution paths and provide a simple example.

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