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Workgroup and Workflow Management Systems-Written Test of Feb. 10th, 2009

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 the concepts of *global* and *local* transaction. Provide a very simple example for both concepts.

space reserved to your answer

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

(2) The more and more widespread use of cars requires a new way of managing the process according to which driving licences are issued.

Whenever a citizen wants to obtain a driving license, he/she has to provide the Department of Motor Vehicles (DMV) office with a medical certificate, asserting his/her physical suitability to drive cars, and with a xerox copy of his/her ID card. After receiving such documents, the DMV issues a temporary driving permit, enabling the citizen to drive cars under the supervision of an instructor: the permit expires after six months. The citizen must own a valid temporary driving permit in order to attend examinations to obtain the actual driving license.

One month after the issuance of the temporary driving permit, the citizen can enroll for a written examination, where 20 questions are randomly selected from a thesaurus of 5.000 questions. If the citizen does not fail more than 2 answers, the written examination is passed. Otherwise, the citizen must wait at least for one month until he/she can enroll for a new written examination.

After the citizen passes the written examination, he/she can enroll for the practical examination, i.e. the driving test. The inspector of the DMV performs the practical examination: if the citizen does not pass the examination, he/she has to stay waiting for one more month, till he/she can enroll for a new practical examination.

After both examinations are passed, the DMV issues the driving license and informs the citizen that the final driving license can be picked up personally in the respective office of the DMV.

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

Please, suitably model all the *pre-conditions* and *post-conditions* of every task.

(3) With respect to the process described in Exercise 2, provide a reasonable example of an exception managing the expiration timestamp of the temporary driving permit.

space reserved to your answer - exercise 3

space reserved to your answer - exercise 2

(4) Describe the main advantages expected to be achieved by the adoption of X-PDL, as recommended by 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
