Politecnico di Milano

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Workgroup and Workflow Management Systems-Written Test of Feb. 15th, 2013

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) Compare the different techniques of EDM (Electronic Document Management) to convert written documents to a digital format.

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

(2) The Bondinho Pão de Açúcar (PdA) cable car company, in celebrating its 100 year anniversary, wants to start a lottery whose final prize is a private free ride by night on the cable car.

The PdA decides the deadline for the customers to enroll the lottery, and informs the Municipality of Rio, which has to approve. After receiving the approval, the PdA declares the lottery *open* and customers may start enrolling for the lottery by a separate external process (to be modelled), which stores data in a shared database.

90 days after the opening of the lottery, the CEO of PdA closes the lottery and leads the extraction by entering a 16-bit generation number. The lucky winner, extracted among enrolled customers, is informed by e-mail. He/she proposes a night for the ride and the PdA checks if the cable car is free for the requested night: otherwise, the winner has to propose a different night, till an agreement is reached. Finally, the CEO of PdA is informed about the night and he/she is invited to welcome the winner at the mountain station of the cable car at the agreed date.

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 the *information model*, also considering the shared database.

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space reserved to your answer - exercise 2

space reserved to your answer - exercise 2

(4) Provide an example of how to map, inside a plain activity graph, an exception monitoring the late execution of one task.

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