



Politecnico di Milano

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Workgroup and Workflow Management Systems-Written Test of Feb. 18th, 2008

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) Considering the interoperability between two Workflow Management Systems, describe the main differences in case of a federated environment with respect to a distributed environment.

space reserved to your answer

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

(2) In order to promote the invitation of guest professors, Politecnico di Milano wants to implement the respective bureaucratic steps as an easy-to-use web system. More precisely, the system should assist local professors in inviting external professors or researchers, and it should assist a dedicated secretary in the organization of the visit.

A local professor, who wants to invite a colleague from the outside, connects to the web system and enters an informal invitation to be sent to the email address of the external professor. With this input, the system automatically generates an email that also allows the invited professor to easily accept or decline the invitation via the web system, possibly providing an explanation in case of a rejection. If instead he/she accepts, the secretary inputs the necessary personal details about the visitor and consults an internal knowledge base in order to understand whether a formal invitation letter is required, in order for the visiting professor to apply for a visa in his/her home country. If such a letter is required, the secretary drafts the invitation letter, the inviting professor signs it, and the secretary sends out the letter via ordinary mail.

Thereafter, or already in parallel, the secretary asks the visiting professor for his/her documents (at least identity card and photo), which - again - the visitor can upload via the web system. Once the secretary has all the necessary documentation, he/she prepares a visitor badge that will allow the visitor to access the Politecnico buildings for the whole duration of the visit. In parallel to the preparation of the badge, he/she may book a room or an apartment on behalf of the visitor in one of the residences for visiting professors of Politecnico. Also, he/she needs to get the respective keys from the responsible for the booked residence. The day the visiting professor comes to Politecnico di Milano, he/she finally gets in touch with the secretary, who hands him/her over the keys of the booked room/apartment and the badge. At this point the organization support of the visit ends, and the process terminates.

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 described in Exercise 2, provide a reasonable example of a local transaction managing the booking of the apartment.

space reserved to your answer - exercise 3

space reserved to your answer - exercise 2

(4) Describe the main differences between a Workgroup System and a Workflow Management System, and provide some typical situations that best fit with each of them.

space reserved to your answer

This part for use by the teacher, only.

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