

# A Requirements Document for a Course Management System

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We present below a sample requirements document and a refinement strategy that refers to the informal requirements.

## 1 Requirements Document

A club has some fixed *members*, amongst them are *instructors* and *participants*. Note that a member can be both an instructor and a participant.

ASM 1	Instructors are members of the club.
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ASM 2	Participants are members of the club.
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There are pre-defined *courses* that can be offered by a club. Each course is associated with exactly one fixed instructor.

ASM 3	There are pre-defined courses.
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ASM 4	Each course is assigned to one fixed instructor.
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A course is either *opened* or *closed* and is managed by the system.

REQ 5	A course is either <i>opened</i> or <i>closed</i> .
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REQ 6	The system allows to open a closed course.
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REQ 7	The system allows to close an opened course.
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The number of opened courses is limited.

REQ 8	The number of opened courses cannot exceed a given limit.
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Only when a course is opened, participants can *register* for the course. An important constraint for registration is that an instructor cannot attend his own courses.

REQ 9	Participants can only register for an opened course.
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REQ 10	Instructors cannot attend their own courses.
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## 2 A Refinement Strategy

Typically, before attempting to model a system, it is important to sketch a plan of how the requirements are going to be addressed. These plans are called *refinement strategies*. For our running example, we adopt the following strategy.

**Initial Model** To model how courses are opened and closed by the system, limiting the number of opened courses (ASM 3, REQ 5, REQ 6, REQ 7, and REQ 8).

**First Refinement** To model the club members, including instructors and participants, along with registration for courses (ASM 1, ASM 2, ASM 4, REQ 9, and REQ 10).

**Second Refinement** To data refine the model from the first refinement.