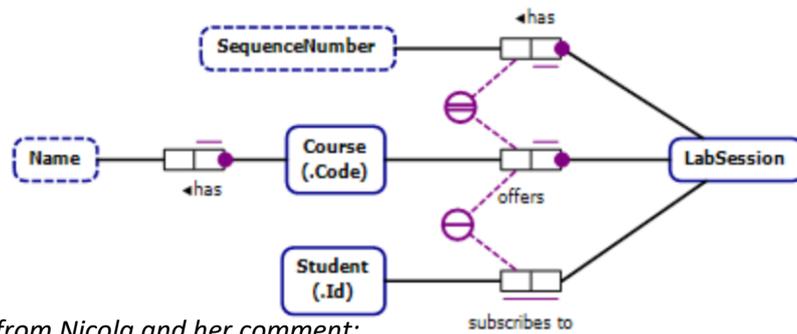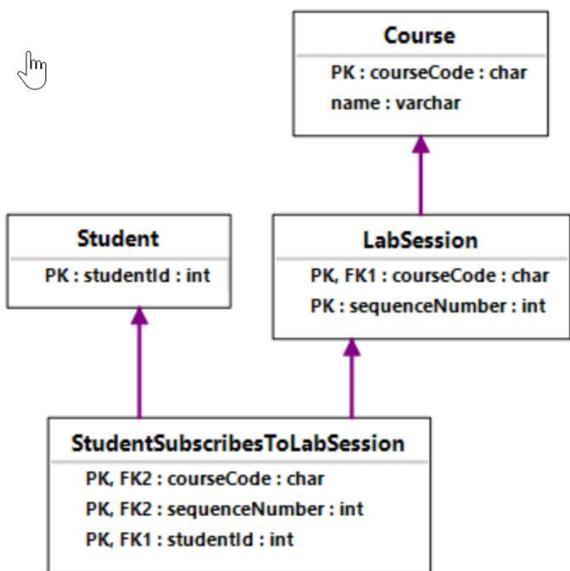*ORM schema from Nicola* (Note: I would normally expect a UC on the role of CourseName):
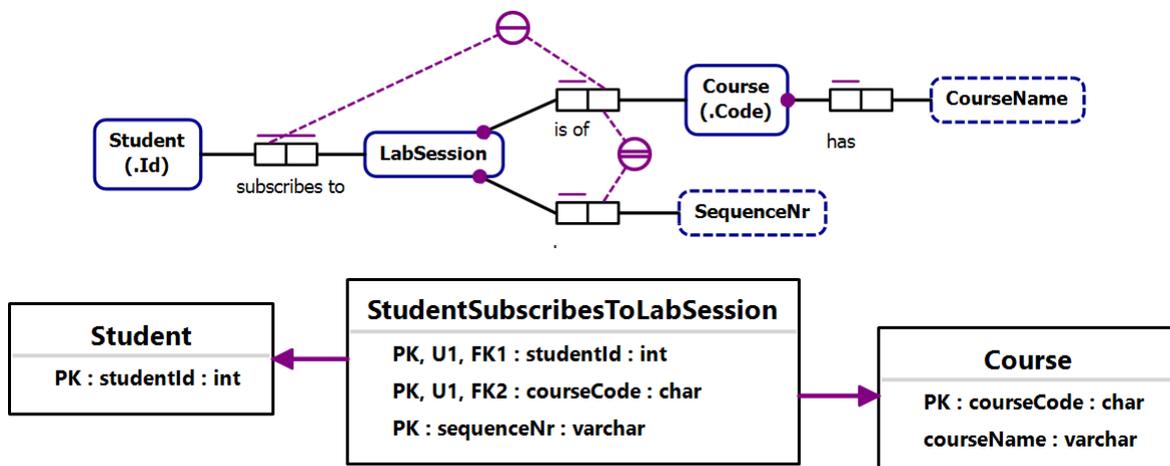


*Generated Relational view from Nicola and her comment:*

> Generated Relational view attached. Do you see the problem? The external constraint on {Course, Student} is not enforced. This is simply a matter of setting the PK of StudentSubscribesToLabSession to {courseCode, studentId}.
>
> So, in general NORMA seems to ignore most external constraints.



My version of her ORM schema and the relational view mapped from the source forge version of NORMA. The secondary external UC *is* captured see (U1, U1) though it would be neater to make it the PK (as the ternary PK is implied). There is no need to create a LabSession table. I'm a bit surprised to see the Student table, as Student is not declared independent in the ORM schema.
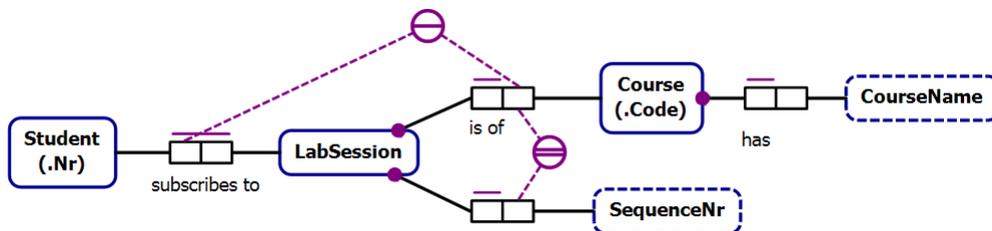
*Comments added 2018 Oct 28:*

Regarding the Student table, Ken reminded me that last year I entered the following issue NOR-95 to request a fix or a warning for how .Id refmodes are mapped.
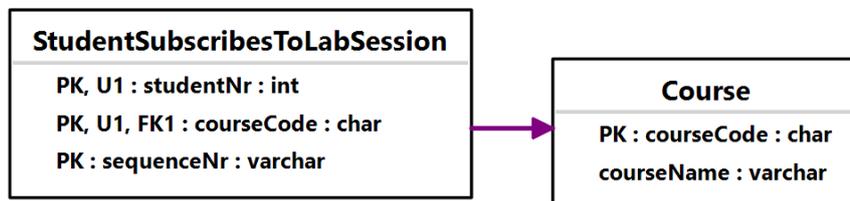
<<By default NORMA sets .Id refmodes to the data type Numeric: Auto Counter, and maps it to an integer column with the identity property, causing a separate table to be generated. As the attached two examples illustrate, this can lead to a redundant table. This is bound to confuse. Ideally we should fix the mapping to avoid the redundancy. If this is not done, a warning should be issued to change the .Id refmode to avoid generating a redundant table.>>

Changing .Id to.Nr fixes this problem, as shown below. Of course, in a realistic model, Student would host other roles and a Student table would then be needed.

*ORM schema:*

Student (.Nr) — subscribes to — LabSession — is of — Course (.Code) — has — CourseName

SequenceNr

*Relational view:*

**StudentSubscribesToLabSession**

PK, U1 : studentNr : int
PK, U1, FK1 : courseCode : char
PK : sequenceNr : varchar

**Course**

PK : courseCode : char
courseName : varchar

ORM fact types are set-based, not bag-based, so a spanning UC is the weakest UC option for any fact type. In this example, the spanning UC is implied by the stronger, external UC at the top of the figure. This can be indicated by displaying the UC in green as shown below (this display option is available in the Visio ORM stencil and in a more advanced version of NORMA).

Student (.Nr) — subscribes to — LabSession