Innopolis University ERD Explanatory Note

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PERSON

CLUB

Club is a group of people united in order to do certain activities. Anybody can be a member of a club.

memberOf is a many-to-many relationship as long as a person can be member of several clubs, and a club can have a few persons as mambers. It is optional for a person (one can be or can be not a member of a club) and mandatory for a club (a club must have at least one member to exist).

leaderOf is a one-to-many relationship as long as a club should have precisely one leader, and a person can lead several clubs.

STUDENT

This is a weak entity, dependant on a PERSON, as long as every STUDENT is a PERSON and can't exist without one.

ACADEMIC GROUP

Academic group is a group of students who share their syllabus.

memberOf is a many-to-one relationship as long as each academic group consist of many students, but a student should be a member of precisely one academic group.

Subentities

There are 4 types of academic groups, the inheritance in exclusive as long as academic groups must not overlap.

LECTURE, SEMINAR

attends is a many-to-many relationship as long as a student attends multiple lectures and seminars and lectures and seminars are attended by multiple students.

EXAM

passes is a many-to-many relationship because of the same reason as the *attends* relationship. It has the *Grade* attribute for grading a student.

ASSIGNMENT

does behaves the same way as the *passes* relationship, but for assignments.

PROFESSOR, TA

These are weak entities, dependant on a PERSON, as long as every PROFESSOR and TA is a PERSON and can't exist without one.

These entities describe those who are responsible for academic courses realization. Professor could be either a lecturer or an instructor, or he can be both, while TA can only be an instructor. Instructors are responsible for seminars and assignments and lecturers are responsible for lectures and exams. A lecturer can give more than one lecture and can take more than one exam, but there is only one lecturer for each exam and each lecture, so the relationship is one-to-many. The same explanation goes for an instructor, seminar and assignment.

EXAM, LECTURE

covers in one-to-many as long as one exam usually covers a few lectures in the end of the course.

SEMINAR, ASSIGNMENT

covers is one-to-one as long as there is an assignment for every seminar that should be done during the following week.