341 Relational Schemas for the ER Diagram

▱ Represents Entity-Set Schema.

◇ Represents Relationship-Set Schema.

__ Underlined attributes represent "key" attributes which are crucial to differentiating one set from another.

Note: In the ER Diagram, any sets with double sided lines represent "Weak Entity-Sets". This means that they do not have any key attributes which would make them necessarily unique.

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◇ Contains(classNumber, lectureSectionNumber, labSectionNumber, tutorialSectionNumber)

▱ Laboratory(labSectionNumber, instructorName, days, times, location)
▱ Lecture(lectureSectionNumber, instructorName, days, times, location)
▱ Tutorial(tutorialSectionNumber, instructorName, days, times, location)

◇ MemberOf(classNumber, lectureSectionNumber, labSectionNumber, tutorialSectionNumber)

▱ Course(classNumber, description, courseTitle, waitlist, capacity, sessions, term, credits, corequisites, prerequisites)

◇ SelectedWith(classNumber, term, courseList)

▱ Course_Selection (term, courseList)

◇ Uses(builtSchedule, term, courseList, days, times, numberOfCourses, constraints, completedCourses, academicRequirements)

▫ User_Preferences(days, times, numberOfCourses, constraints)

▫ Student_Record(completedCourses, academicRequirements)

▫ Schedule_Builder(<u>builtSchedule</u>)

▫ Optimized_Sequence(<u>optimizedSchedule</u>)

◇ Optimizes(<u>builtSchedule,</u> <u>optimizedSchedule</u>)

◇ Initiates(<u>builtSchedule</u>, <u>studentID</u>, <u>facultyID</u>)

▫ Teacher(<u>facultyID</u>, teacherName, courseHistory, courseList)

▫ Student(<u>studentID</u>, studentName, programOfStudy, academicRecord)

◇ IsAccountOwner(<u>facultyID</u>, <u>netname</u>)
◇ IsAccountOwner(<u>studentID</u>, <u>netname</u>)

▫ User_Account(<u>netname,</u> password)