# Conceptual to Logial Model

**Student-Course** 

## Example: Student and Courses: Logical (Relational) Model

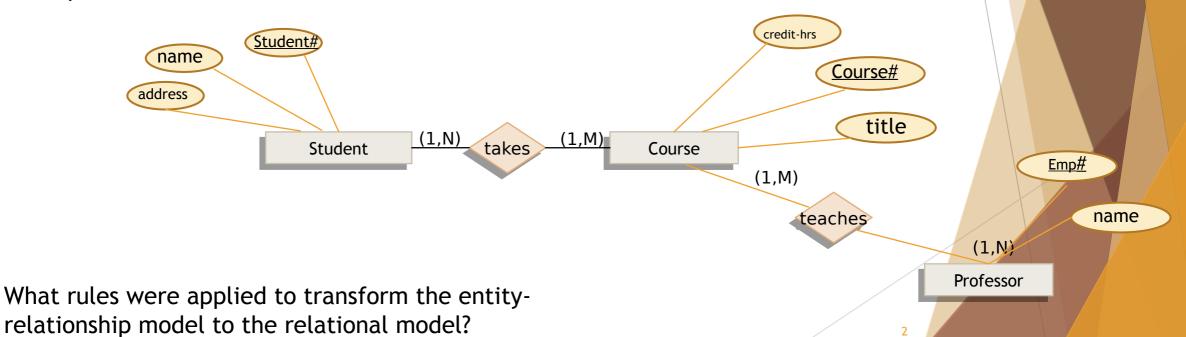
#### Relational Model:

Student: (<u>Student#</u>, name, address) Course: (<u>Course#</u>, title, credit-hrs)

Professor: (Emp#, name)

Student-Course: (Student#, Course#)
Course-Professor: (Course#, Emp#)

## Conceptual Model:



## Example: Student and Courses: Logical (Relational) Model

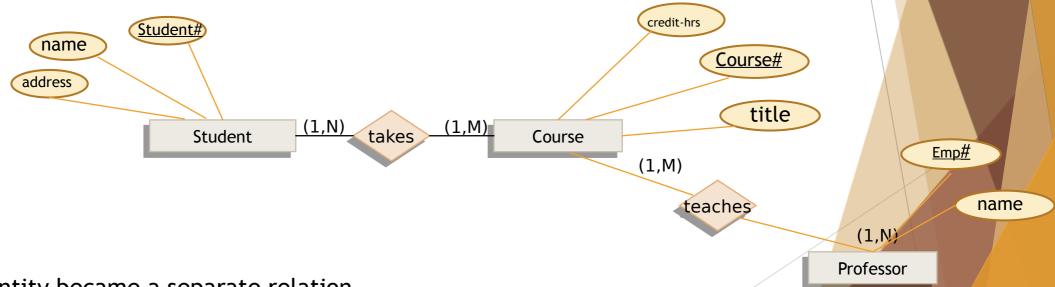
#### Relational Model:

Student: (<u>Student#</u>, name, address) Course: (<u>Course#</u>, title, credit-hrs)

Professor: (Emp#, name)

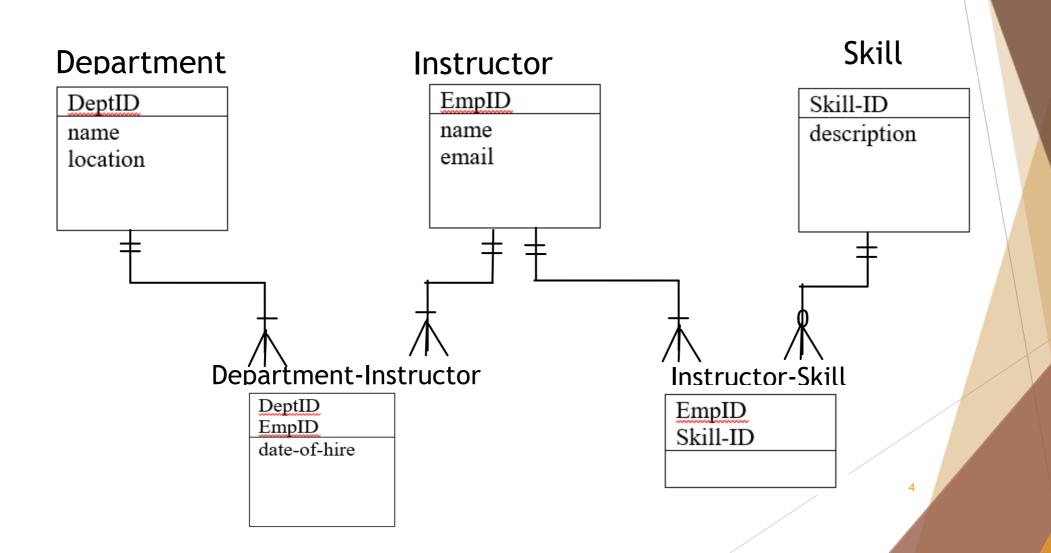
Student-Course: (<u>Student#</u>, <u>Course#</u>)
Course-Professor: (<u>Course#</u>, <u>Emp#</u>)

## Conceptual Model:

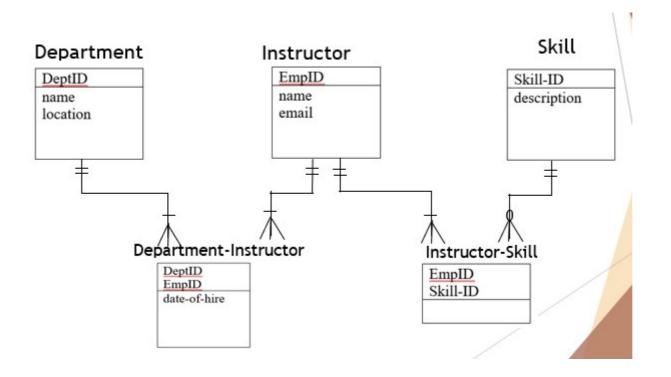


Ans. Each entity became a separate relation. Each of the many-to-many relationships became separate relations. Two additional realations.

# Example: Instructors assigned to department



## Example: Instructors assigned to department



Relations:

Department: (DeptID, name, location)

Instructor: (EmpID, name, email)

Skill: (Skill-ID, description)

Department-Instructor: (DeptID, EmpID, date-of-hire)

Instructor-Skill: (EmpID, Skill-ID)

5