

Mississippi State University

Group Project Part 1

Web-based Course Waiting List Maintainer

Version 1.0

CSE 4503/6503 Database Management Systems

Dr. Leann Markham

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Introduction

Requirements and the constraints specification for the given ER diagram

Requirements:

Our entities for the ER Diagram representing the Course Waiting List maintainers are:

Entity:

STUDENT- Attributes :Major, Graduating_Date, Name, netid. Unique identifier: netid

CURRICULUM- Attributes: Objectives, Curriculum_id, Semester. Unique identifier:

Curriculum_id.

COURSE- Attributes: NumStudents, Sections, Course_id, Building, Type. Unique identifier:

Course_id.

DEPARTMENT- Attributes: D_Name, Dept_id, Location. Unique identifier: Dept_id.

Weak Entity:

WAITING_LIST- Attributes: EmailListID, admin, Reason. Unique identifier: EmailListID.

Constraints:

Chooses- connects the entities STUDENT and CURRICULUM with an N:1 cardinality

Is_Created- connects CURRICULUM and DEPARTMENT with an N:M cardinality

Stores- an identifying relationship that connects DEPARTMENT and the weak entity

WAITING_LIST with an N:1 cardinality

Is_Offered- connects DEPARTMENT and COURSE with a 1:N cardinality

WAIT_LIST- connects STUDENT and COURSE with a M:N cardinality and also has an attribute called Add_Students

ENROLLS- connects STUDENT and COURSE with an M:N cardinality

Assumptions:

One department can offer many courses. Students can enroll in many courses. If the course is not available, students are kept on a wait list.

Department stores the waiting list for students and decides to enroll students according to their classification. A student's classification is determined by their graduating year.

Curriculum is designed by the department. Every curriculum is taught in different semesters. The curriculums have their own id.

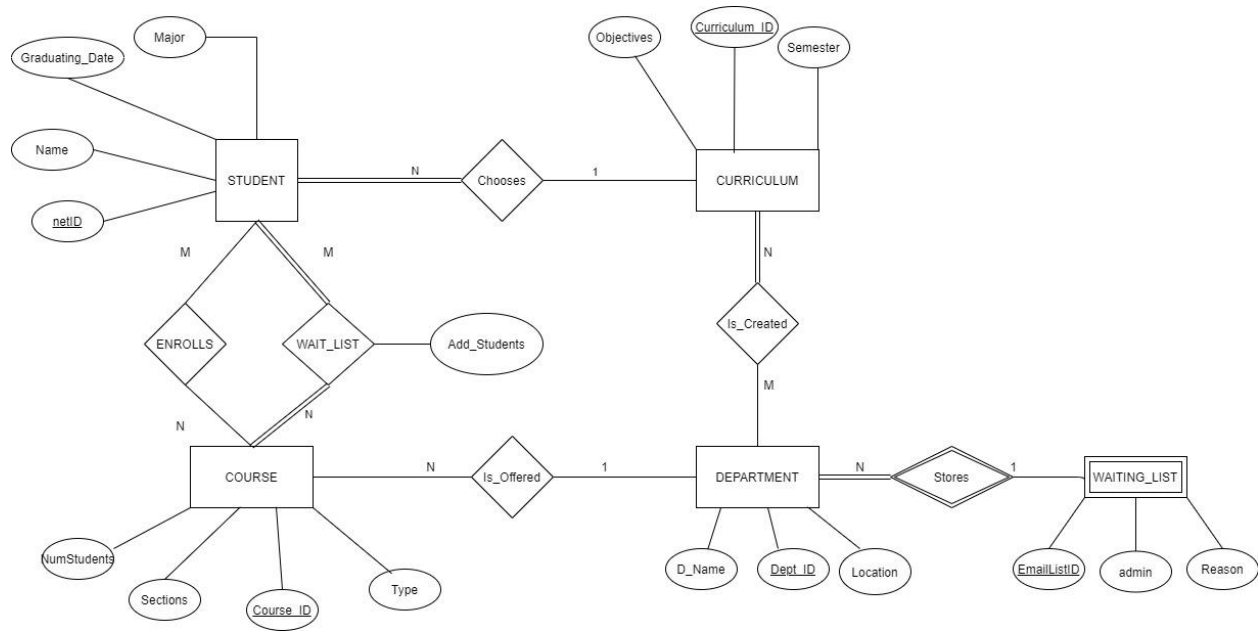
Many students can choose one curriculum. Every student has their name, major, netID and a graduating date.

Every student can enroll or wait for the course to run.

Every course has its own location(building) to be taught, a type, a number of students, sections and a course ID.

We also assumed that all students met the prerequisites.

ER Diagram



References

Not Applicable