BBM473 Project - Group 2
Course Enrollment System
Phase 1 Report

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Project Definition

We are so close to the 2020s and technology has never taken this much place in our lives. Nowadays, we cannot imagine manual strategies for many of the important tasks. Course registration is one of them. Still, there is a large number of challenges to overcome such as response, time keeping track of quotas and prerequisites. Thus, we will have a digital course registration system for universities.

Main Functions
- Students can see the course information such as the sections, teachers, classroom, section-time, quota, etc.
- Students can enroll in classes, delete the courses from their basket, change the sections of the courses.
- Teachers can see the enrolled students for their courses, their previous attempts/grades of that course, and the remaining quota.
- System admins can create and manage the courses.
- Students can see their current weekly schedule.
- If the quota is full for a course, no student can add this course to their basket.
- The maximum credit of courses that students can take is defined by their credit limit. If the credit of a course is bigger than the remaining credits of the student, the student cannot enroll in this class. If the credit limit of the student is exceeded, the student cannot enroll in any other class.
- Some courses are prerequisites for other courses. If the student did not take and passed these required classes, the student cannot enroll in the requested class.
- A student can enroll in only one section of a course. If the other sections are not full, the student can change his/her section.

Entity Sets and Relations
- A faculty has a name and ID (unique identifier) (e.g.Engineering Faculty - ENG).
- Each faculty has one or more departments. Each department must belong to one faculty.
- A department has a name, ID (unique identifier) and location. (e.g. Department of Computer Engineering - BBM, Beytepe)
- Each department opens one or many courses. A course must belong to one department.

- A course has ID (unique identifier), name and credit. A course may require one or more courses as prerequisite. A course may be a prerequisite of one or more courses. (e.g. BBM201, Data Structures, 4 credit, requires BBM101).
- A class is a course that is open for a semester. It has a term and year. It has one or more sections. (e.g BBM201 Fall 2019).
- A section of a class has an ID (unique identifier), a quota that the maximum number of students can enroll, a location where it takes place and time when it takes place. (e.g BBM201-01, 70, D1, Monday 09.00-11.50)
- A student can enroll in a section of a course if he/she has enough credit left, the section has enough quota, and the student passed the courses this course requires. A student can enroll in many courses, and a course contains many students.
- A student has ID (unique identifier), name, start year, and the credit limit which indicates the maximum number of credits he/she can take currently. Each student must belong to one department.
- A student also has information about the classes he/she took, which semesters he/she took the course, the passing status for the semesters, and the grade of the course.
- An instructor has an ID (unique identifier) and name. Each instructor must belong to a department. An instructor gives a class in a particular section. An instructor can give many classes, and a class can have many instructors.