Assignment 3: Requirements Analysis

CS-4320 Software Engineering

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Problem Statement:

A method for easily submitting and collecting programming assignments is needed. The purpose of this method is to create a system that allows students in programming classes to submit programming work, as well as to allow TA's to collect the assignments. It is also important that the instructors of the course can manage the course, it's sections, the TA's, and the assignments.

Types of Users:

1. Students
2. TA's
3. Instructors

User Requirements:

Student Requirements:

The following activities must be able to be performed by a student user:

1. A Student must be able to view the assignments for their course section
2. A Student must be able to submit completed assignments for their course section

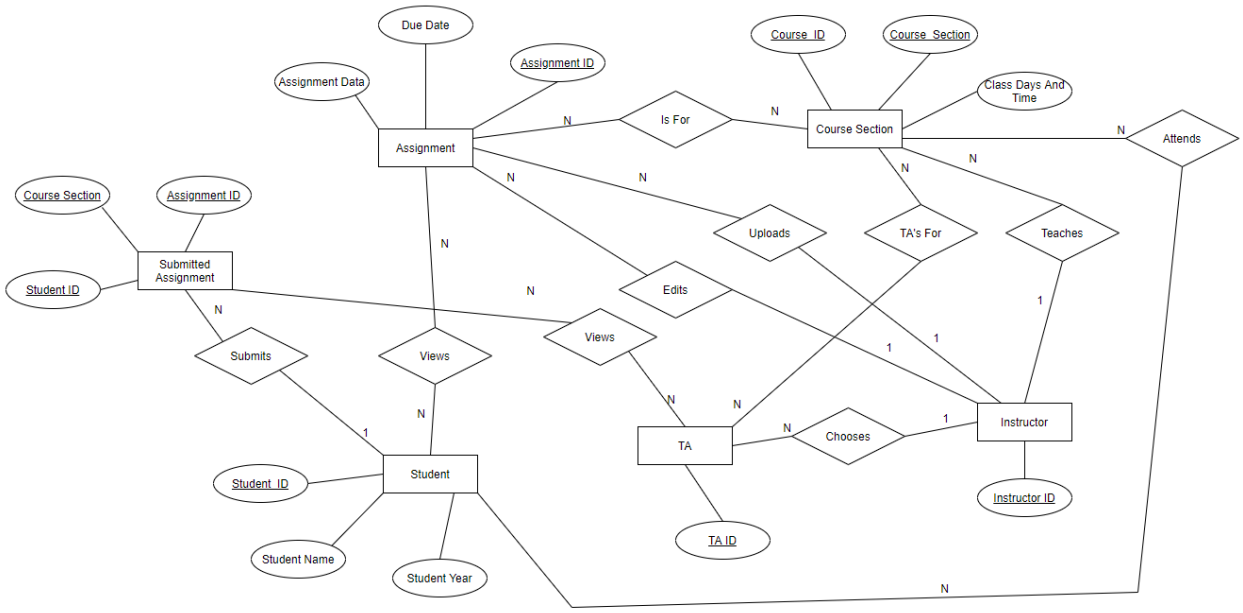
TA Requirements:

1. A TA must be able to collect assignments that have been submitted for the course they TA for

Instructor Requirements:

1. An Instructor must be able to post and edit assignments for the courses they teach and they must be able to do so by the course section
2. An Instructor must be to add and remove TA's for the sections of the courses they teach

Data Model:



Non-functional Constraints:

Student Constraints:

1. Students should be able to submit assignments quickly because of strict deadlines
2. Students should never be allowed to view other students submitted assignments
3. The method used should be able to support multiple students being logged on at the same time
4. The software should operate on Windows, Mac, and Linux

TA Constraints:

1. The TA for a course should not be able to view assignments of students not in the course section the TA for

Instructor Constraints:

1. The Instructor should be able to edit assignments and have the changes reflected immediately
2. The instructor should only be able to see assignments they have created that are for their courses

System Constraints:

1. The method should run on a server with extremely high uptime
2. The system should have at least 100GB of storage for assignments and other data
3. The system must be able to handle asynchronous connections