BLG 468E Object Oriented Modelling and Design Assignment 1

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Student Course Enrollment Use Case

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Primary Actor

Student

Stakeholders and Interests

- **Student:** Wants to enroll in their desired course(s) successfully.

- **Instructor:** Wants students to enroll in their course.

- **Registrar's Office:** Wants correct students to enroll in the correct courses without any issues.

Preconditions

The student is logged in to the registration system and already on the course enrollment screen.

Postconditions

The student's eligibility to enroll in the course is determined. If the student is eligible for the course, the desired course doesn't overlap with another course and the course has enough quota, the student is successfully enrolled. The student is notified with a success message.

However, if the student has not successfully enrolled in the course, they are notified with a failure message indicating the reason for failure to enroll in the course.

Main Success Scenario

1. Student enters the CRN (course registration number) of the course they desire to enroll in.

2. Student submits the CRN to enroll in the course.

3. System checks whether the given CRN corresponds to a valid course.

4. System calculates the student's eligibility for enrolling in the course.

5. System checks the student's enrolled courses for overlapping courses.

6. System checks whether there is enough quota for enrolling in the course.

7. System registers the student into the course.

8. Student is met with the approval message.
   The student continues to enroll in the courses by repeating steps 1-7.

9. When the student is done, they leave the system and log out.

Extensions (Alternative Flows)

3a: CRN doesn't exist.

1. System prompts an error message and notifies the student that the given CRN does not correspond to a valid course.

2. Student corrects the CRN code and submits the correct CRN code.

3. System continues to operate from step 3 in the main scenario.

4a: Student doesn't meet the prerequisites.

1. System prompts an error message and notifies the student that they didn't meet the prerequisites to take the course.

2. Student continues from step 1 in the main scenario, by entering a CRN for a different course.

4b: Student has hit the credit limit.

1. System prompts an error message and notifies the student that they have hit the credit limit.

2. Student stops taking courses, moving to step 9.

5a: Requested course's hours overlap with another course's hours.

1. System prompts an error message and notifies the student that the requested course's hours overlap with their other course(s) by providing the information about the overlapping course(s).

2. Student continues to take courses.

   (a) Student continues to take courses, by moving to step 1 in the main scenario.
   (b) Student drops the overlapping course. (Another use case which is not shown here.)
   (c) Student continues to take courses, starting from step 1.

6a: Not enough quota for the requested course.

1. System prompts an error message and notifies the student that the requested course's quota is full and he/she cannot be registered in the course.

2. Student continues to take courses, by moving to step 1 in the main scenario.

*a: At any time, an error occurs.

1. An error occurs and the system undoes any changes that are currently done.

2. System notifies the student that an unexpected error has occurred.

Special Requirements

- Course enrollment screen must be working on most of the browsers, such as Firefox, Chrome, Edge and on different platforms such as desktop, mobile, tablet, etc.

- Course enrollment system must be responsive, even under high load.

Technology and Data Variations List

- **1:** CRN (Course Registration Number) is a five digit number starting from 10000, unique to every course. The codes are announced by the registrar's office.