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2/1/2020

CS4320 Software Engineering

Assignment 3: Requirements Analysis

Users:

CS Department faculty

CS Department staff

CS Department students

User Requirements:

Faculty/Instructor shall be able to:

- View course:
 - Course ID //Required Input
 - List of course section IDs //Output/Print
 - List of enrolled student IDs //Output/Print
 - List of assigned staff IDs //Output/Print
- Add course:
 - New course ID //Required Input
 - New course section IDs //Optional Input
 - New course enrolled student IDs //Optional Input
 - New course assigned staff IDs //Optional Input
- Delete Course:
 - Course ID //Required Input
- View course section:
 - Course ID //Required Input
 - Section ID //Required Input
 - List of section staff IDs //Output/Print
 - List of section student IDs //Output/Print
- Add course section:
 - Course ID //Required Input
 - New course section ID //Required Input
 - New course section assigned staff IDs
- Remove course section:
 - Course ID //Required Input
 - Course section ID //Required Input
- View Staff:
 - Staff ID //Required Input
 - Course ID //Output/Print
 - Section ID //Output/Print
- Add Staff
 - New Staff ID //Required Input
 - Course ID //Optional Input
 - Section ID //Optional Input
- Remove Staff:

- Staff ID //Required Input
- Set Staff
 - Staff ID //Required Input
 - Staff's new assigned course ID //Required Input
 - Staff's new assigned section ID //Required Input
- View students in course:
 - Course ID //Required Input
 - List of student IDs //Output/Print
- View students in section:
 - Course ID //Required Input
 - Section ID //Required Input
 - List of student IDs //Output/Print
- View Student:
 - Student ID //Required Input
 - Student Grade //Output/Print
 - List of student's assignment submissions //Output/Print
 - Student enrolled course ID //Output/Print
 - Student enrolled section ID //Output/Print
- Add Student:
 - New student ID //Required Input
 - New student's enrolled course ID //Optional Input
 - New Students enrolled section ID //Optional Input
- Drop Student:
 - Student ID //Required Input
 - Course ID //Required Input
- Change Student Section:
 - Student ID //Required Input
 - Student's new enrolled section
- View assignment:
 - Course ID //Required Input
 - Assignment ID //Required Input
 - List of assignment submission entities //Output/Print
- Create Assignment:
 - Course ID //Required Input
 - New assignment ID //Required Input
 - Assignment Content //Required Input
- Remove Assignment:
 - Course ID //Required Input
 - Assignment ID //Required Input
- View submission details:
 - Assignment submission entity //Required Input
 - Assignment ID //Output/Print
 - Submitter's student ID //Output/Print
 - Date/Time submitted //Output/Print

- Submission's grade //Output/Print
- Grade submission:
 - Submission entity //Required Input
 - Submission's new grade //Required Input
- Message Student/ Staff:
 - Student ID/ Staff ID //Required Input
 - Message Content //Required Input
- View Messages:
 - List of messages sent to user ID //Output/Print

Staff/TAs shall be able to:

- View assignment:
 - Course ID //Required Input
 - Assignment ID //Required Input
 - List of assignment submission entities //Output/Print
- View submission details:
 - Assignment submission entity //Required Input
 - Assignment ID //Output/Print
 - Submitter's student ID //Output/Print
 - Date/Time submitted //Output/Print
 - Submission's grade //Output/Print
- Grade submission:
 - Submission entity //Required Input
 - Submission's new grade //Required Input
- View students in section:
 - Course ID //Required Input
 - Section ID //Required Input
 - List of student IDs in staff's assigned section //Output/Print
- Message Student/Other Staff/Professor:
 - Student ID/ Staff ID/ Professor ID //Required Input
 - Message Content //Required Input
- View Messages:
 - List of messages sent to user ID //Output/Print

Students shall be able to:

- View assignments:
 - Course ID //Required Input
 - List of assignment IDs //Output/Print
 - List of assignment content //Output/Print
- Submit assignment:
 - Course ID //Required Input
 - Assignment ID //Required Input

- New Assignment submission entity //Required Input
- View student submission:
 - Course ID //Required Input
 - Assignment ID //Required Input
 - Submission entity //Output/Print
- View Grades
 - Course ID //Required Input
 - List submission entity grades //Output/Print
- Message Staff:
 - Staff ID //Required Input
 - Message Content //Required Input
- View Messages:
 - List of messages sent to user ID //Output/Print

System Requirements and Restraints:

- Database required to store user information, assignments, submissions and messages.
- System clock to record submission dates and times
- System must only show the correct type of content to the type of user
- Front end service for ease of access to content in database as well as ease of navigating user functions