Project 2 – Assignment 4 – Architecture and Design of a System

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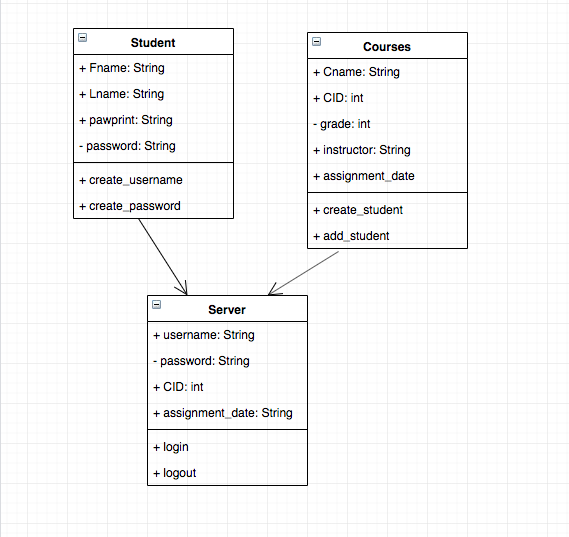
State Machine Diagram 10

Class Diagram

Created by Guangzu, Bradley, Zach

Caption:

For a log in/log out functionality, a student class must have basic information to identify which student it is. Students are allowed to create usernames and/or passwords. All of this information is stored in a database or server. Also saved in that server is the courses class information. The student can log in through the server and view this information. Courses are allowed to create and/or add students to that course. The student can also logout through the server and no longer views any information.

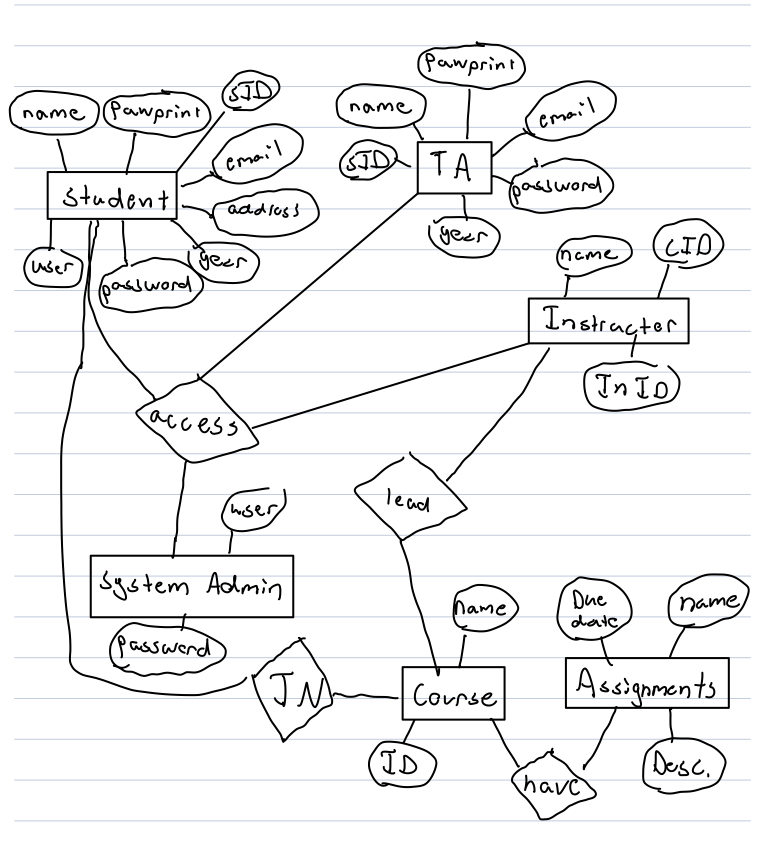


ER Diagram

Created by Guangzu, Bradley, Zach

Caption:

This diagram shows the overall relations between entities in this system. Student has necessary attributes to identify each unique student. Students are in courses and have access to the system admin where they can login to their accounts. TAs and instructors also have identifying attributes and have access to the system admin. Instructors also lead a course. Courses have attributes that identify them from other courses. Each course has different assignments that can hold plenty of different information like due dates and descriptions.



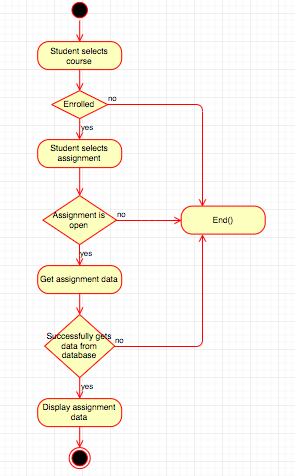
Activity Diagram (Reading Instructions)

Created by Zach

Reviewed by Guangzu

Caption:

This diagram shows how a student could view the instructions on an assignment. The student would select the course and the system would make sure the student is enrolled in that course. The student could then select an assignment and the system would check if that assignment is open or assigned. The system would then get the assignment data and display it to the student. If any steps fail, the system ends, and the student would have to begin again at the start.



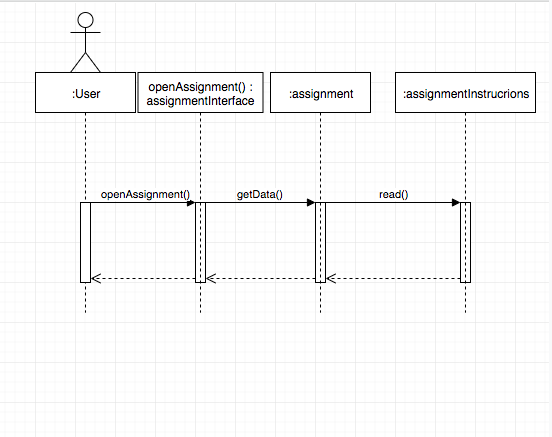
Sequence Diagram

Created by Zach

Reviewed by Guangzu

Caption:

This diagram shows the system grabbing instructions of an assignment. The user or student would open the assignment. The system would open the assignment interface, would look into a database for the assignment data, then would read the data from the database, and finally, return that data to the user so the user can read the instructions.



Use Case Diagram

Created by Bradley

Reviewed by Zach

Caption:

This diagram demonstrates how the user, in this case the students, interacts with the system process of uploading a file. The process by which the user goes about uploading files is included in the description of the diagram included below.

**Title:** Upload Files to Class Assignment

**Description:** This function of our assignment submission system allows students to upload files containing their completed homework into the repository for the class. This file submission will be associated with a specific assignment issued.

**Triggers:** To enter the upload process, the user will enter the specific assignment they are submitting to, and will then be presented with an "select files" button, which will take you to a file explorer/finder so you can select files for upload.

**Actors:** Students enrolled in a class that is issuing assignments.

**Precondions:** Student must be enrolled in a class that is a part of the system, and must navigate to the correct assignment to submit to.

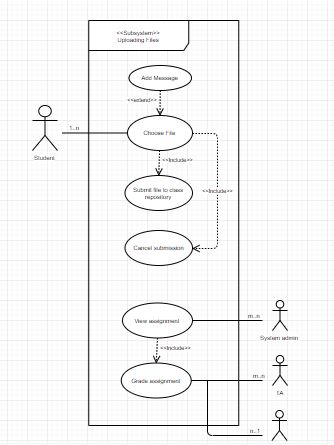
**Main Success Scenario (Goals):** The main goal is for the student to select one or more properly formatted files for submission into the class assignment, so they can be viewed and graded by classroom administrators.

**Failed End Condition:** If the file is not of the correct file type that is specified, the upload process will fail. The user will then be alerted that the upload failed and will be prompted to select a new file.

**Extensions:** IF the user desires, they can attach a message or comment along with their uploaded file to be viewed by the classroom administrator.

**Steps for Execution:**

1. Enter desired class
2. Select assignment to submit to
3. Click "select file(s)"
4. Choose files that are in the specified file formats, dictated by class administrator
5. Add an optional message to your submission
6. Click submit
7. Add submission to the class repository under the person's name, so class administrator can view all the class's submissions in one place



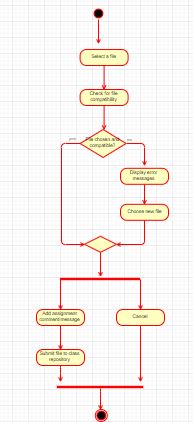
Activity Diagram (Upload)

Created by Bradley

Reviewed by Zach

Caption:

This activity diagram shows the process a student goes through when uploading a file to the classroom’s assignment repository. First, they must select a file from their local system to be uploaded. There is then a check to make sure that the file is present and of the correct type for submission. If these cases are true, the file goes on for submission, else the student will be prompted with an error message and a screen to choose another file that is compatible. After that, the student has the choice to either add a message to be sent off to the instructor along with the file or cancel the process. If the process is not cancelled, the file will be submitted to the system for evaluation by classroom administrators.



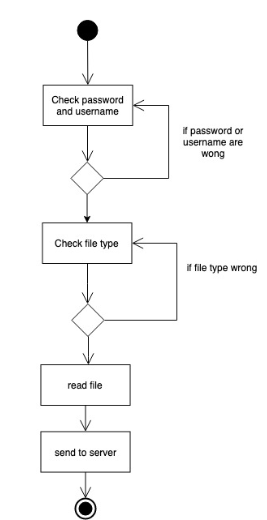
Activity Diagram (Update File)

Created by Guangzu

Reviewed by Bradley

Caption:

For update file activity diagram, first, we receive password. Then, check password and username to see if it is right or not. Then, read file from user system. Finally, send files to server.



State Machine Diagram

Created by Guangzu

Reviewed by Bradley

Caption:

First, we need to log into the system. If username or password is wrong, re-call login function. Second, we need to choose a file, if the file type is not allowed, re-call choose file function. Next, update the file that the user chose before. Finally, process this request in the system.

