

Assignment 4: Design Focus

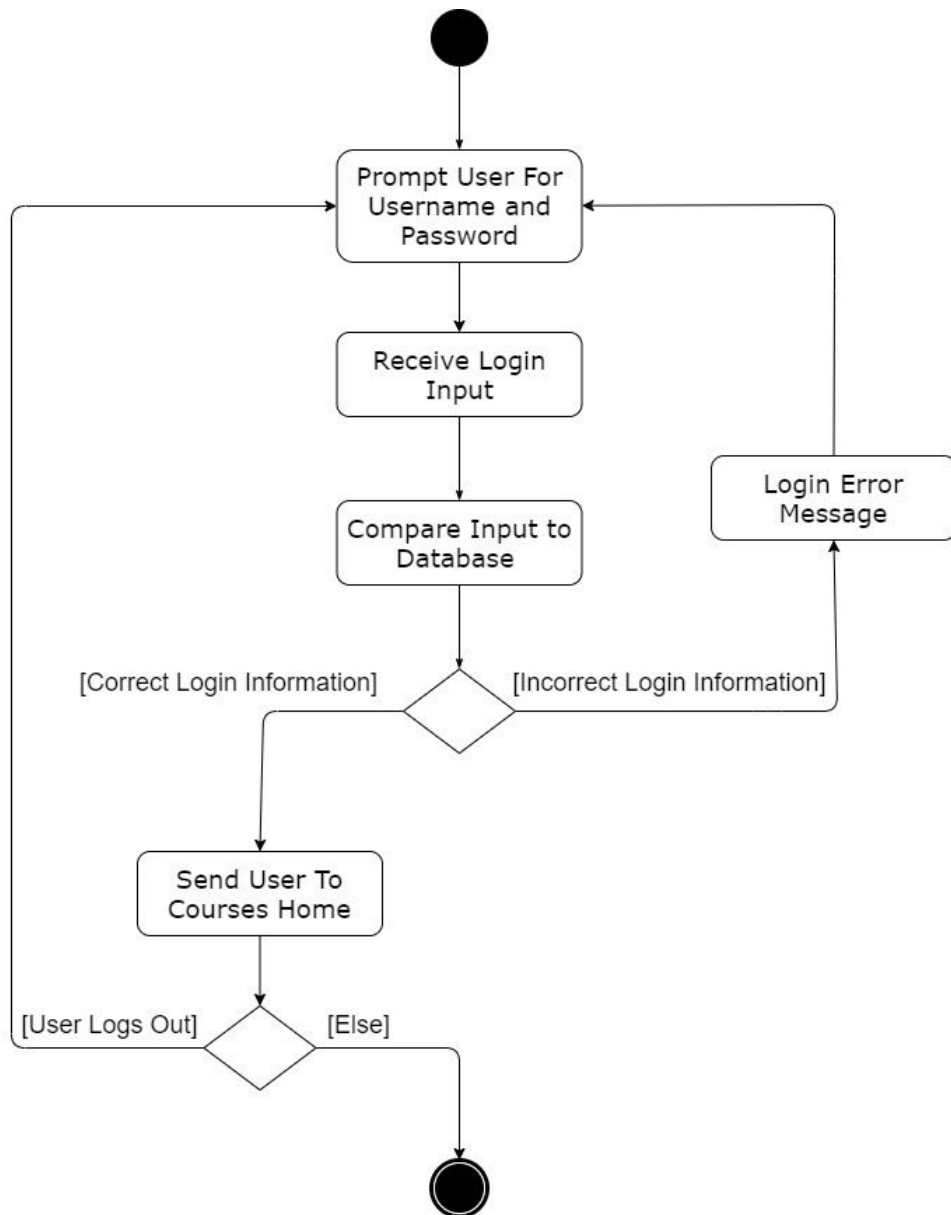
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Design Group 12

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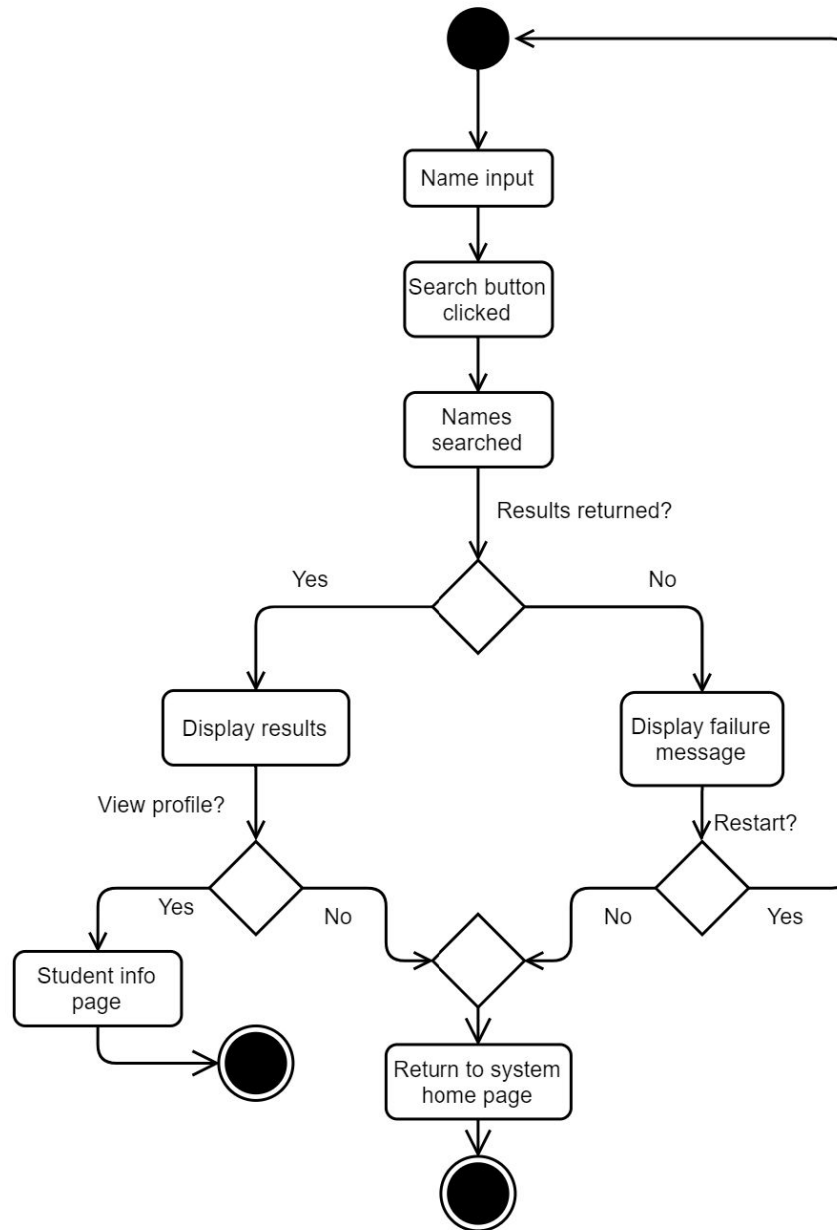
Login/Logout Activity Diagram



Constructed By Brett Eckert

This activity diagram demonstrates the flow of the login/logout activity for Users. Users login information will be compared to the Student's, TA's, Instructor's, and System Administrator's username and password information. If user input matches the information stored in the database they will be sent to their home page. If it does not match the user will be prompted to enter their information again. The User can then logout at any time or proceed to other activities. If the user logs out they will be sent back to the sign in page.

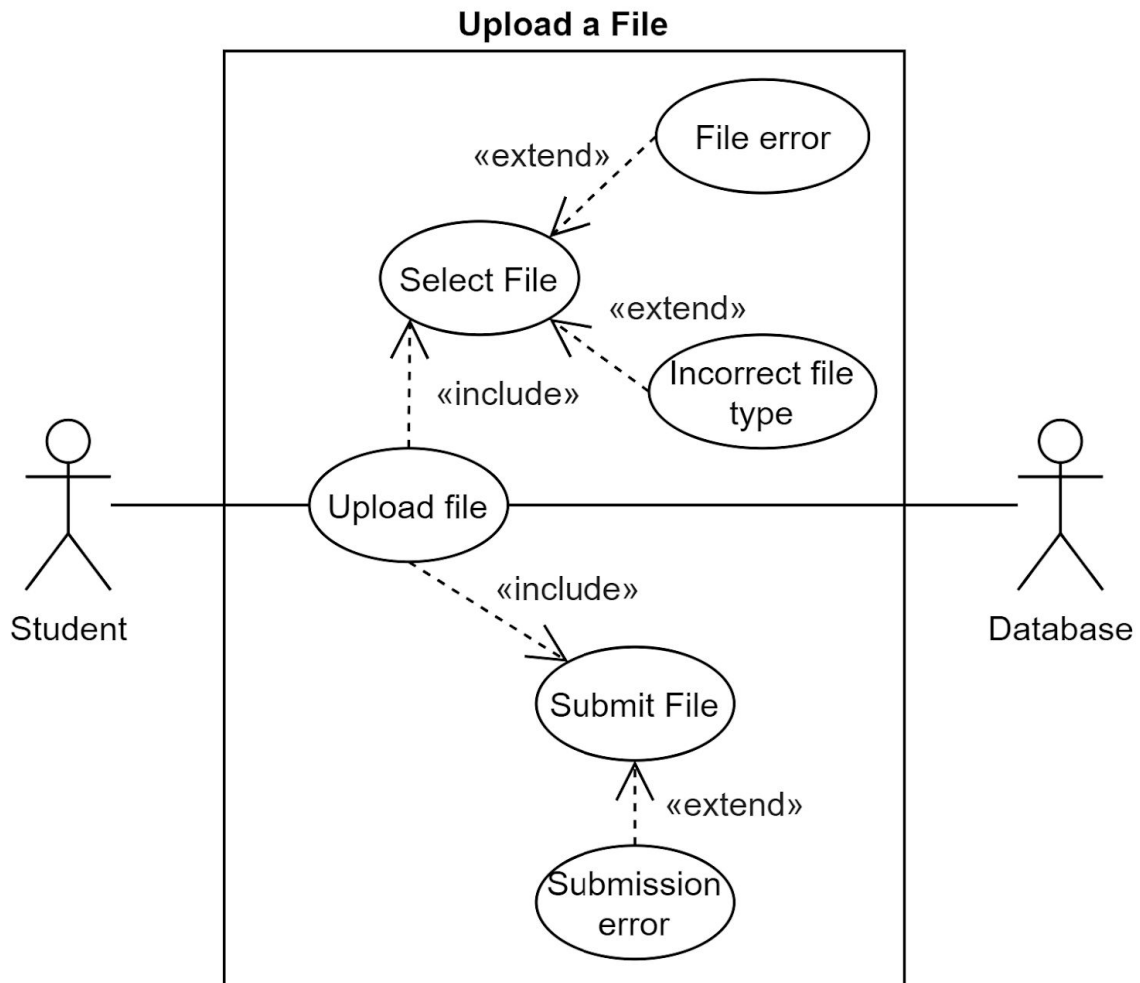
Search Activity Diagram



Constructed by Haley Massa

This activity diagram shows the process of the student search activity for TAs and professors. The process starts when the user inputs a name and hits the search button. At this point, the names of all students in the specified course/section will be searched and the results, if any, will be displayed as a list of links to the student's information page. Otherwise, a search failure message will be displayed and users will be prompted to retry or return to the system's home page.

Upload a File Use Case Diagram and Description



Use Case: Upload File

Description: Students can upload files for submission for the selected assignment.

Actors: Student, database

Triggers: Student selects assignment and clicks on the "Upload Files" button to begin the submission process.

Preconditions: The student must be logged in and have select which assignment they will be submitting.

Main success scenario: The student successfully uploads the correct file type and it is submitted to the connected database.

Steps of execution:

1. Once on the assignment details page, the student begins the process by clicking the "Upload Files" button
2. A file explorer is opened and students are prompted to select the file they would like to upload from their local machine
 - a. The file explorer will only show files with the extension specified in the assignment details
3. The student can submit their selected file by clicking on the "Submit" button
4. A message is displayed to the student to let them know the file was successfully uploaded

Failed end condition: The student is not able to upload a file or the uploaded file is not stored in the database.

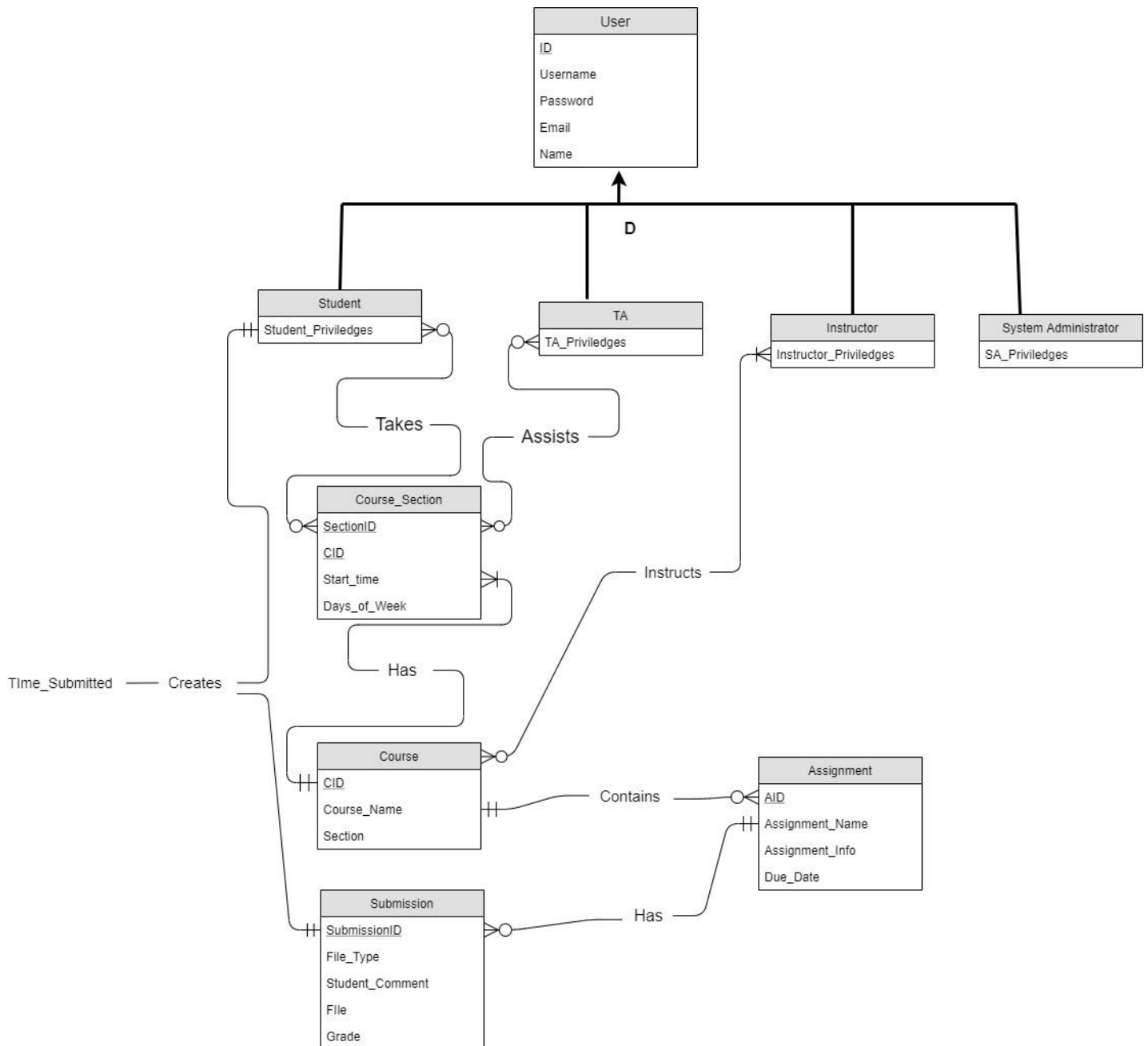
Extensions:

1. The file explorer is unable to upload the selected file
 - a. System logs the error and the time (for grading purposes)
 - b. An error message is displayed and the student is prompted to retry, select a different file, or return to assignment details page
2. The selected file is not the correct type
 - a. The file will not be uploaded or submitted and the student will be prompted to select a file with the correct extension
3. A database error prevents the uploaded file from being saved
 - a. System logs the error and the time (for grading purposes)
 - b. An error message is displayed and the student is prompted to try again

Constructed/written by Haley Massa

Description: This use case diagram and description demonstrate how students can upload files for submission for a certain assignment. More details can be found in the description above.

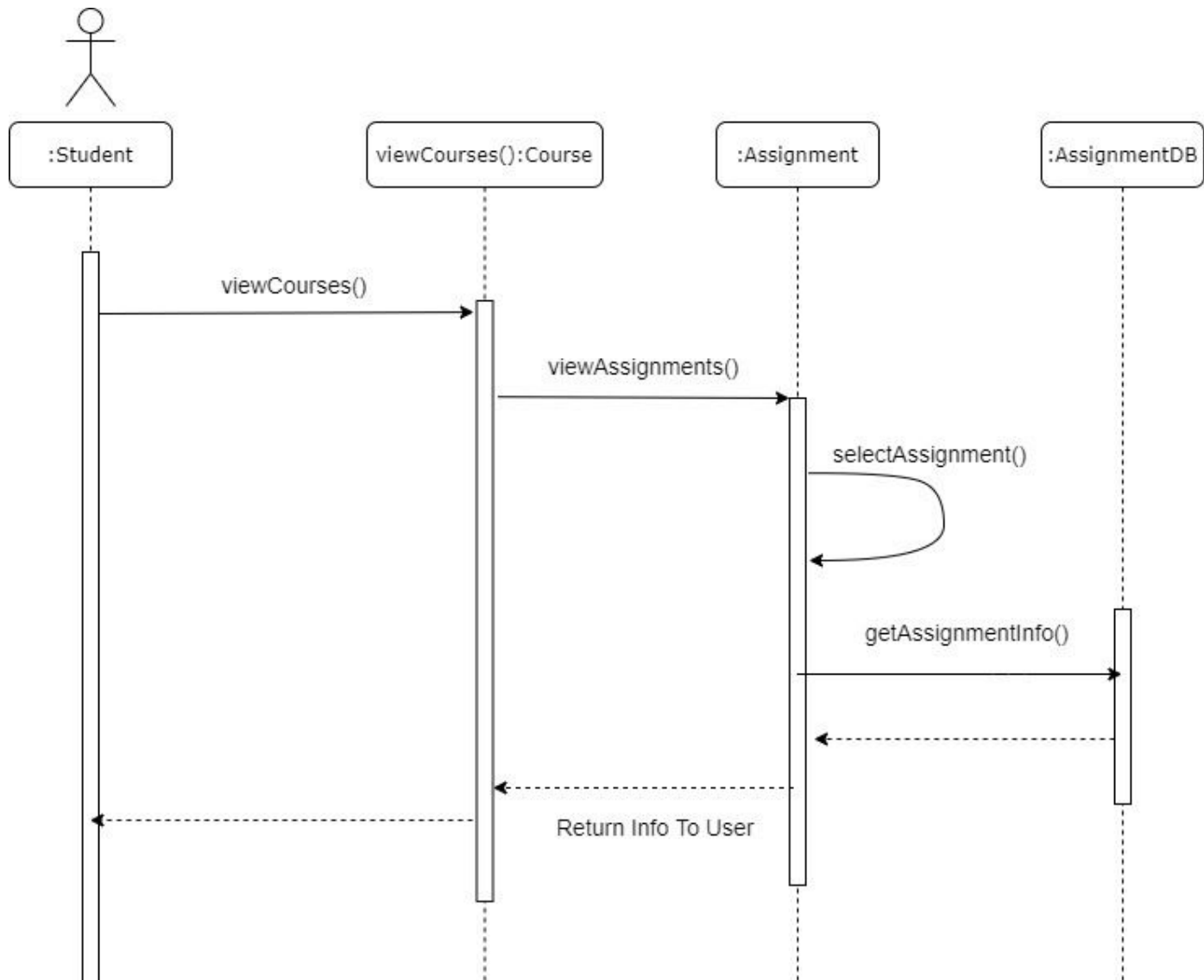
Entity Relationship Diagram



Constructed by Brett Eckert

This ERD diagram demonstrates how data would be stored in the system. Each user would be a subclass with their privileges listed in the database. A course is made up of 1 or many sections. A section is a weak entity of course meaning in order to create a section it must have a linked course. Each course contains 0 or many assignments. Each assignment contains 0 or many submissions from students. A student can only have one submission.

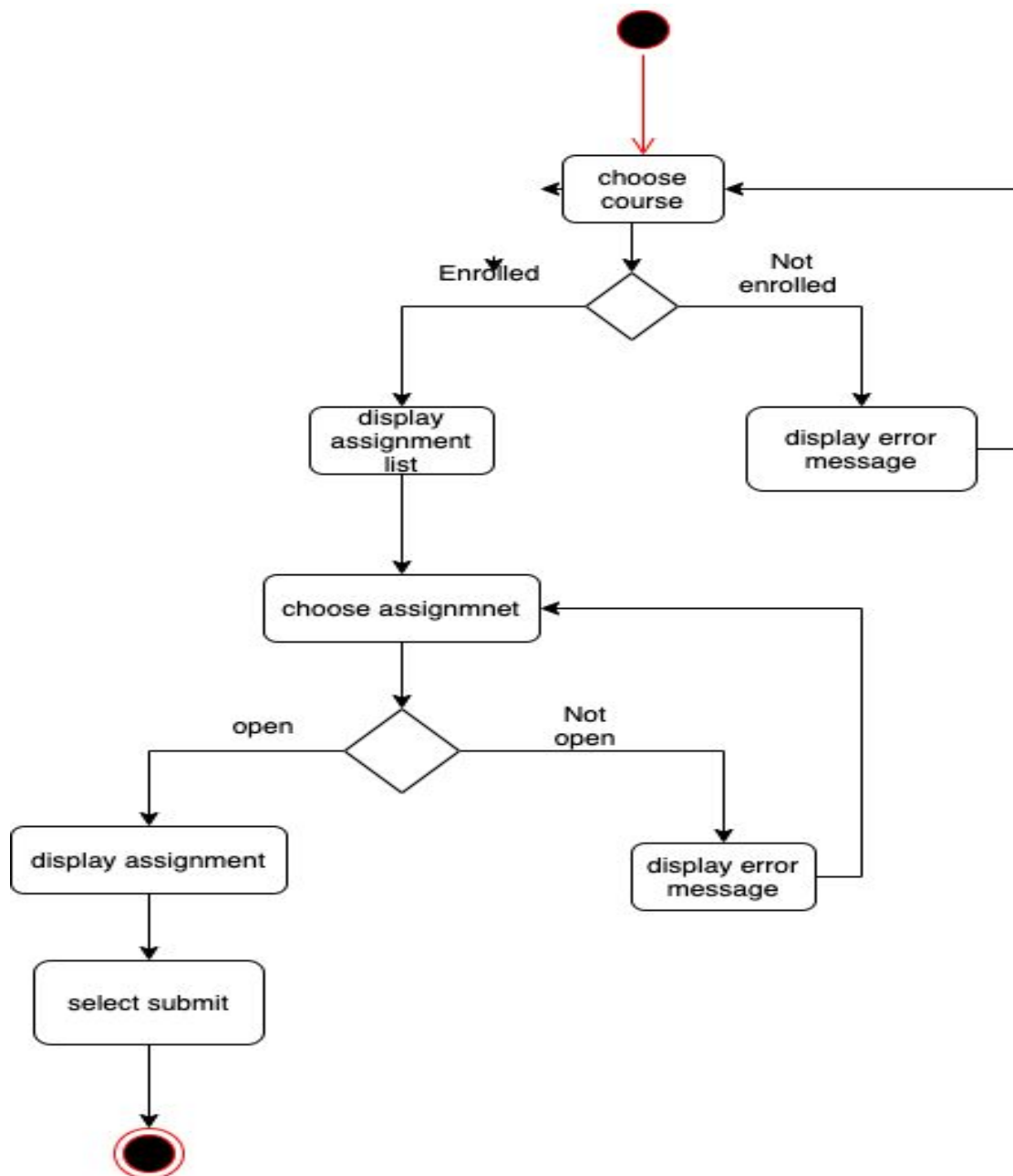
Sequence Diagram For Student Selecting Assignment



Created By Brett Eckert and Peer Reviewed By Haley Massa

This sequence diagram demonstrates the sequence of functions and classes the program would go through when a student selects an assignment they want to submit. First the `viewCourses()` function would be called which would show all the courses the student is enrolled in. After selecting a course the `viewAssignments` function would be called showing all the assignments for the course. After the student clicks an assignment they want to submit the `getAssignmentInfo` function would be called which would retrieve the assignment info from the database. Then that assignment info would be returned to the student and they would be ready to submit on their select assignment.

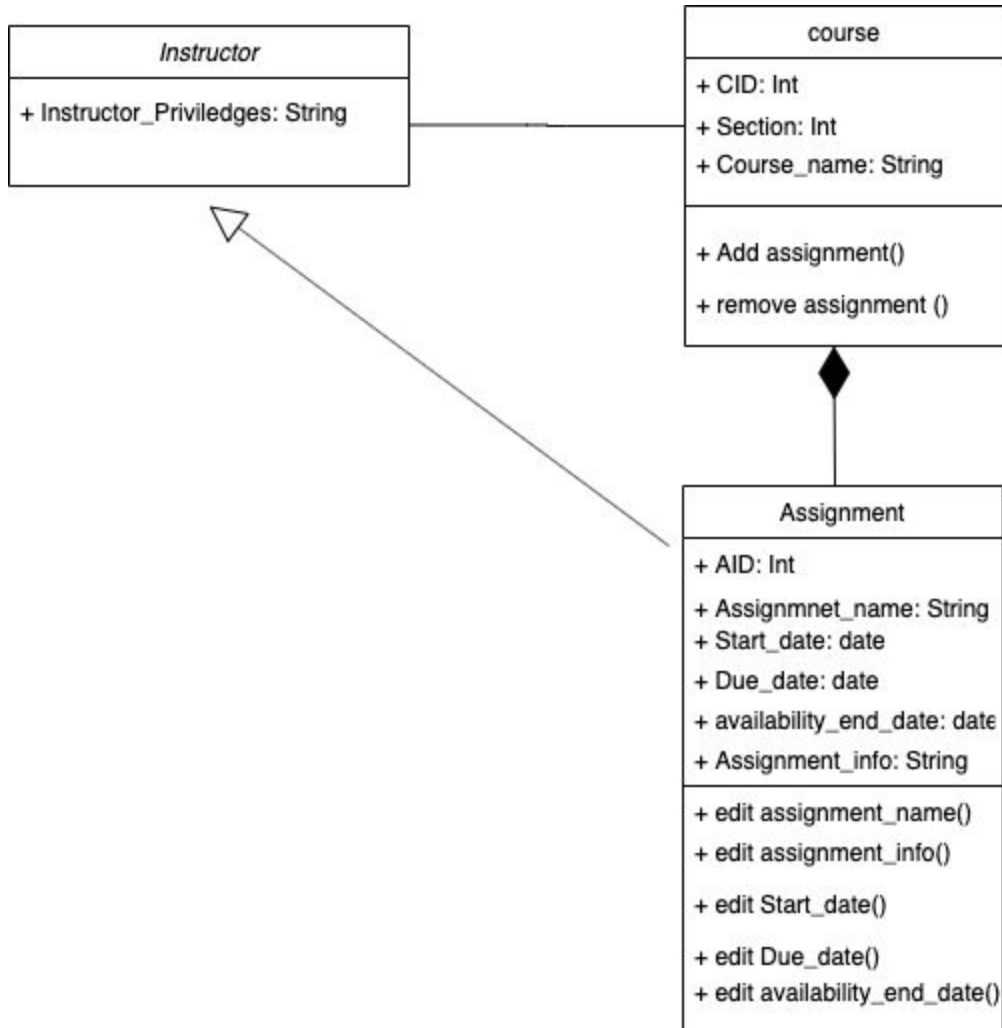
Activity diagram for Student Selects Assignment



Constructed by Zhenxian Han

This activity diagram starts when students choose a course. They can only choose the course they have enrolled in and if they choose the course they didn't enroll in it will show an error message and go back to the previous page. When choosing the assignment, students only can choose an open assignment, otherwise, it will show an error message and go back to the previous page. After going to the assignment, students can submit.

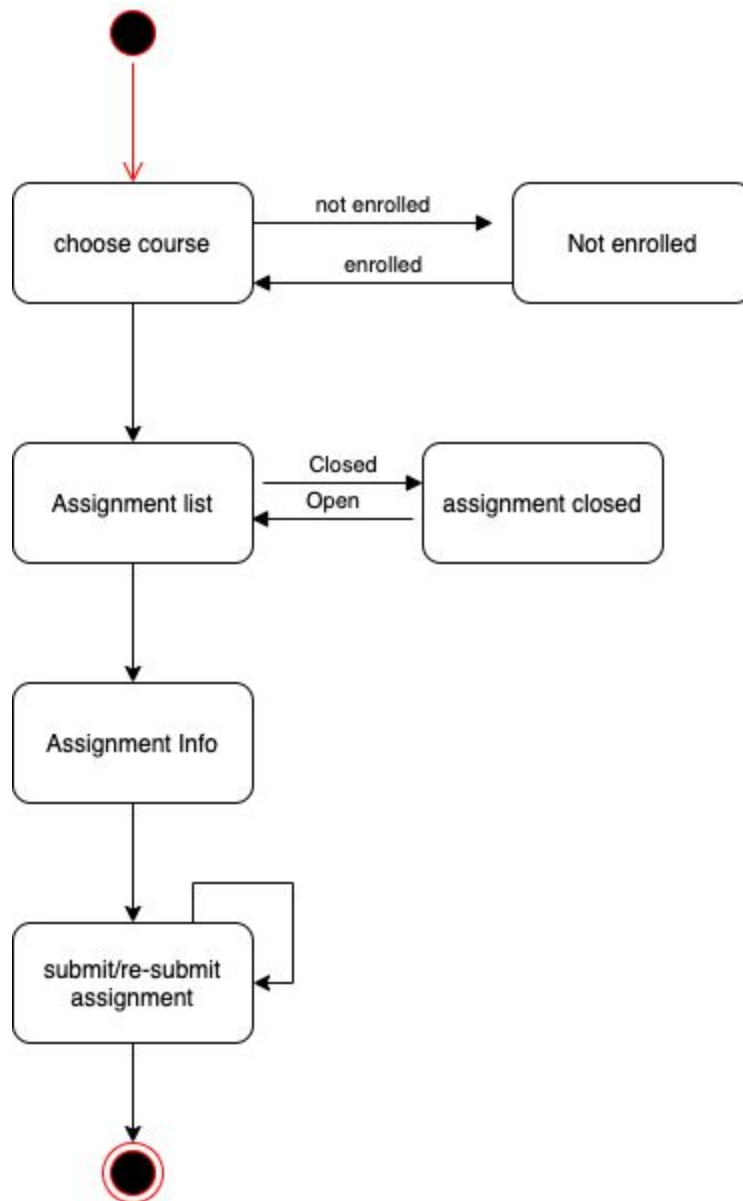
Class Diagrams for Instructor Modify Assignment



Constructed by Zhenxian Han

This class diagram is how the Instructor can create/ edit/ remove the assignment. This shows the class of Instructor, course, and Assignment. The Instructor class and Course class is a simple association. The Assignment class is a composition of Course class. The assignment class can not stand with itself, it needs to be together with Course class. And the assignment class also inherits from Instructor because the Assignment can be modified by Instructor.

State Machine Diagram for students submit/re-submit Assignment



Constructed by Zhenxian Han

This state machine diagram shows the students submit and re-submit assignments. When the student chooses the course, it is not enrolled, it will show Not enrolled. After enrolled, it can choose the course. And then choose an assignment, if the assignment is not open, the state will show Assignment closed. And after the assignment is opened, students can see the info. And after submitting, they can still re-submit the assignment.