

# Group 7

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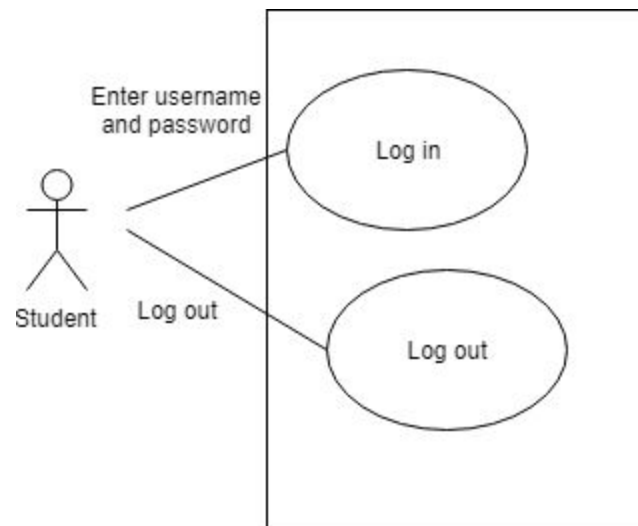
## **Project 2: Architecture and System Design Process**

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## **Use Case Diagram**

Activity: Student Login and Logout



(above: use case diagram with a student actor and two use cases)

The use case diagram and description was completed by Joseph Vitale.

## **Use Case Description**

Title: Use Case: Student Login/Logout

Description: A student can either login or logout of the assignment submission system.

Triggers: The login action is triggered by the student selecting the login button at the login page.

The logout action can be triggered at anytime while logged into the system by selecting the logout button which is accessible on any page in the system.

Actors: The only actor in this diagram is the student.

Preconditions: Login has the precondition that the student has the system running and is logged out. Logout has the precondition that the student has the system running and is logged in.

Goals: The goal of login:

1. Student enters credentials (username and password) at the login page
2. Student selects login
3. System verifies student's credentials
4. If credentials correct, system logs student into their personal account and grants them access to their data (courses and assignments).
5. Student remains logged in until they logout or session ends (e.g. timeout or browser closes).

The goal of logout:

1. Logged in student selects logout button
2. System logs student out and takes them to the login page
3. System securely prevents access to student's data until another login event.

Failed end condition: If login fails, the user is taken back to the login page and an error message is displayed describing why the user was not able to login (e.g. incorrect username/password). If logout fails because the user has already logged out in another tab, take the user to the login page. If logout otherwise fails to log the user out, display error message describing why.

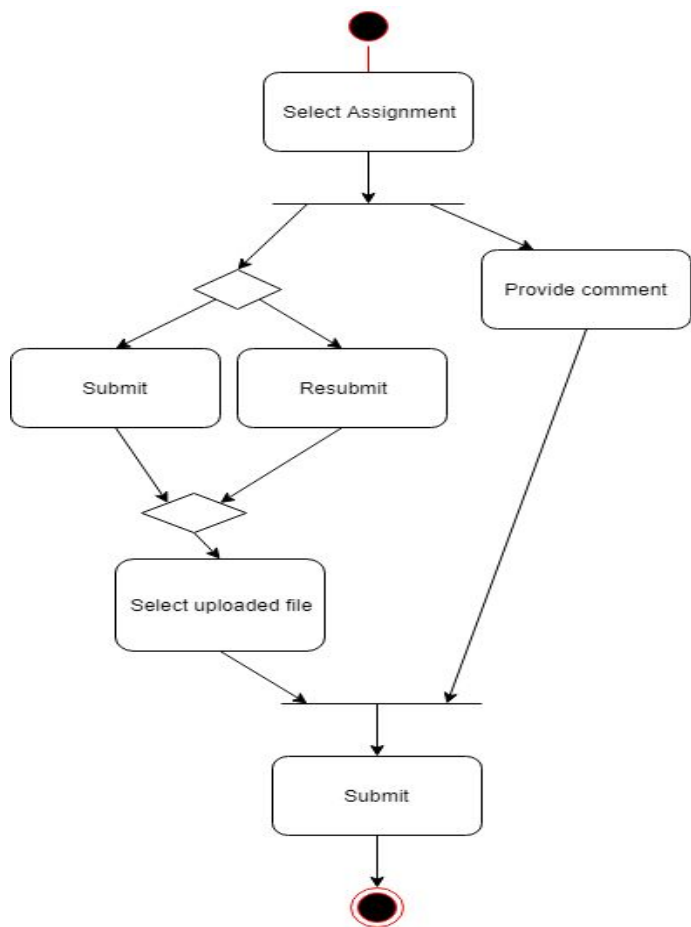
Extensions:

1. Computer crashes while logging in.

- a. Cancel login request.
2. Computer crashes while logging out.
  - a. If a crash is detected, log student out of system.
3. Student cannot remember password.
  - a. Email password to email address associated with student's account.

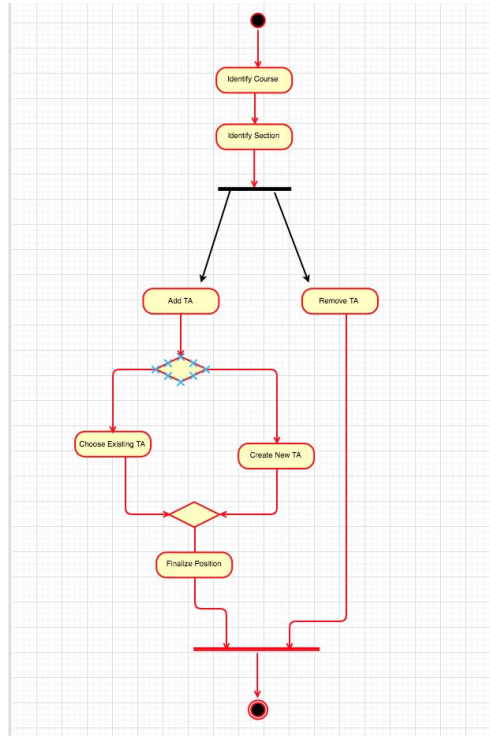
Requirements: This activity requires a secure database to store student usernames, passwords, emails, courses, and assignments. It requires the use of sessions to log users out if they do not log out themselves.

### Activity Diagrams

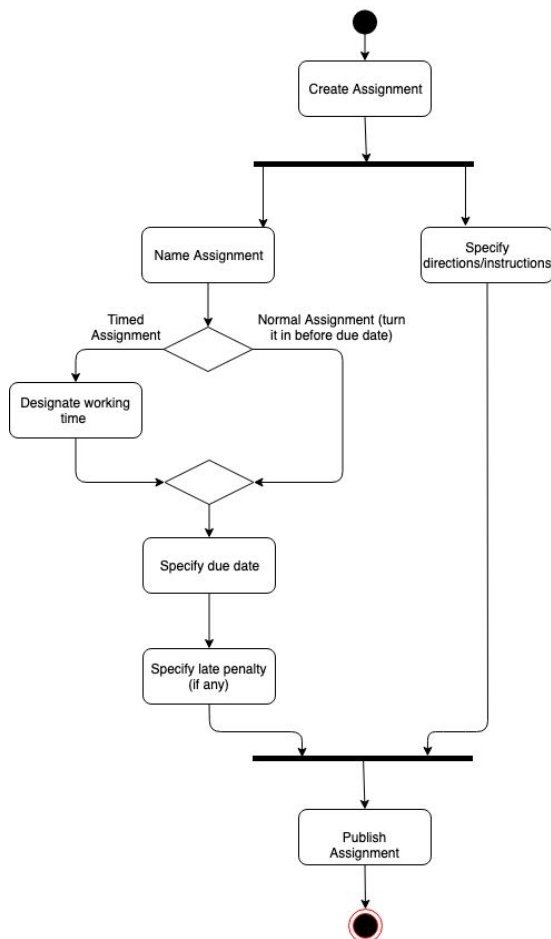


### Student Submission Activity Diagram

(left: activity diagram for a student submitting an assignment)  
This activity diagram was completed by Joseph Vitale.



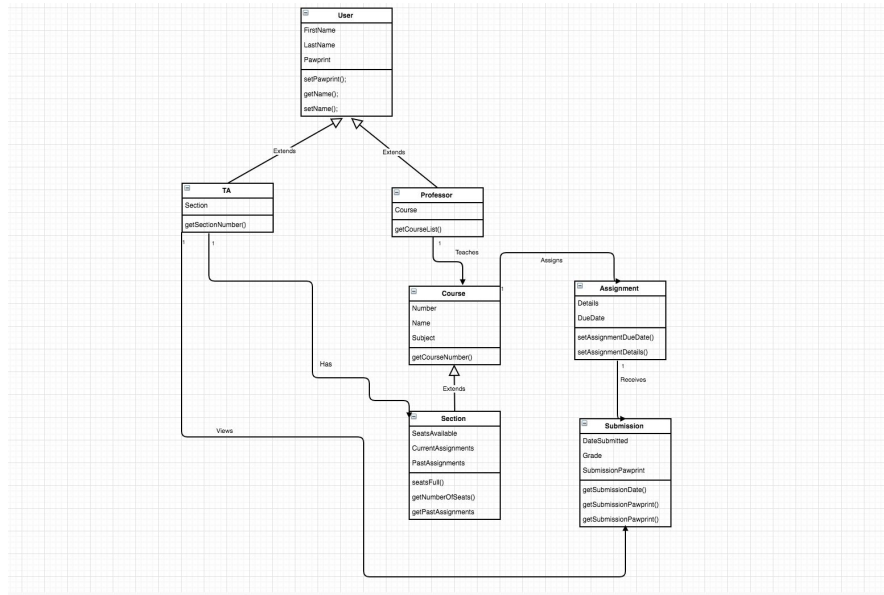
Instructor Adding or Removing TA Activity Diagram  
 (left: Activity diagram for adding or removing TA from a section.)  
 This activity diagram was completed by John Burkin.



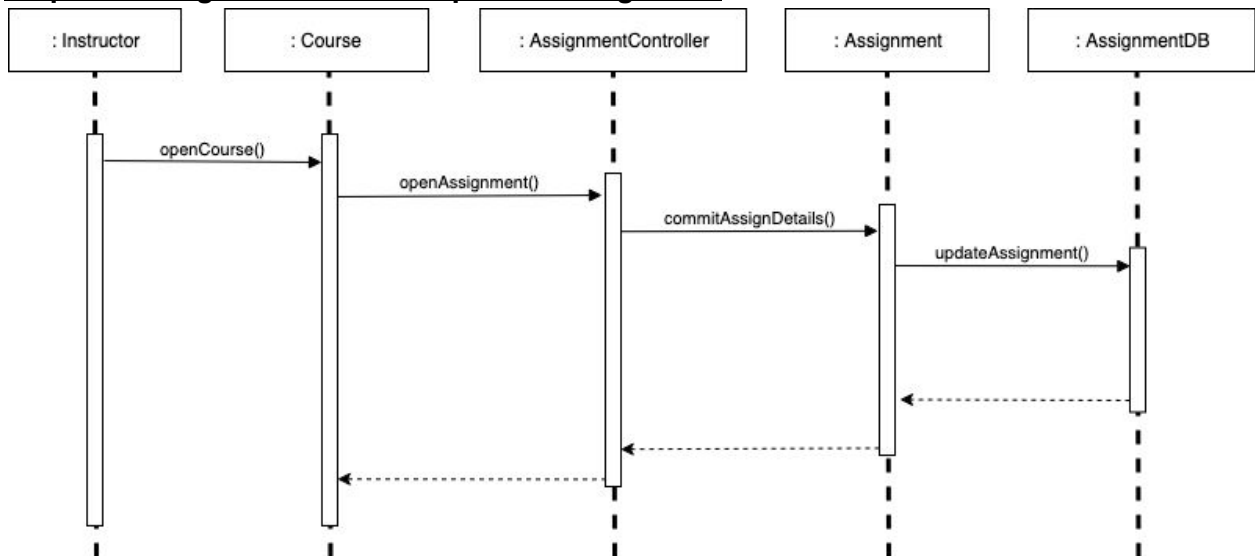
Instructor Creating Assignment Activity Diagram  
 (left: activity diagram for instructor creating and publishing an assignment)  
 This activity diagram was completed by Max Balk.

## Class Diagram

This class diagram was completed by John Burkin. The activity represented is viewing submissions.



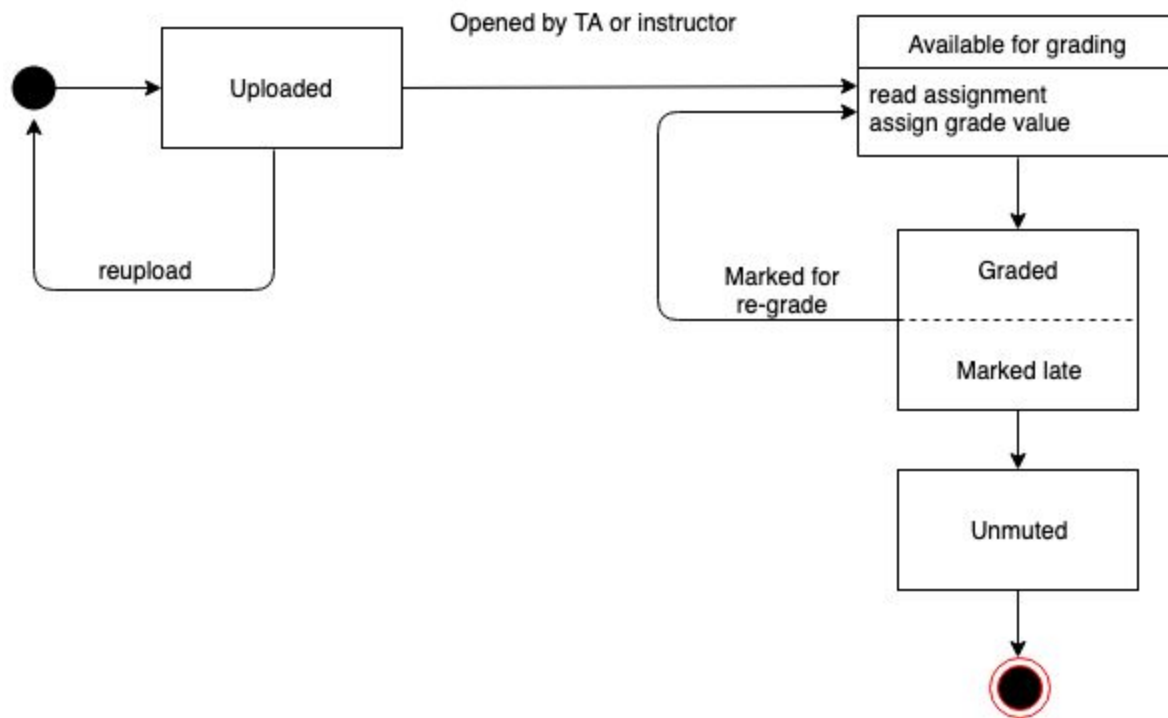
## Sequence Diagram: Instructor Updates Assignment



This is a sequence diagram for an instructor updating an assignment for their course. It was completed by Max Balk.

## State Machine Diagram

This is a state machine diagram for uploading an assignment to the point that it gets graded. It was created by Max Balk and peer reviewed by John Burkin.



## Entity Relationship Diagram for Whole System

This ER Diagram was created by John Burkin and peer reviewed by both Joseph Vitale and Max Balk.

