Team: Erik Holbrook
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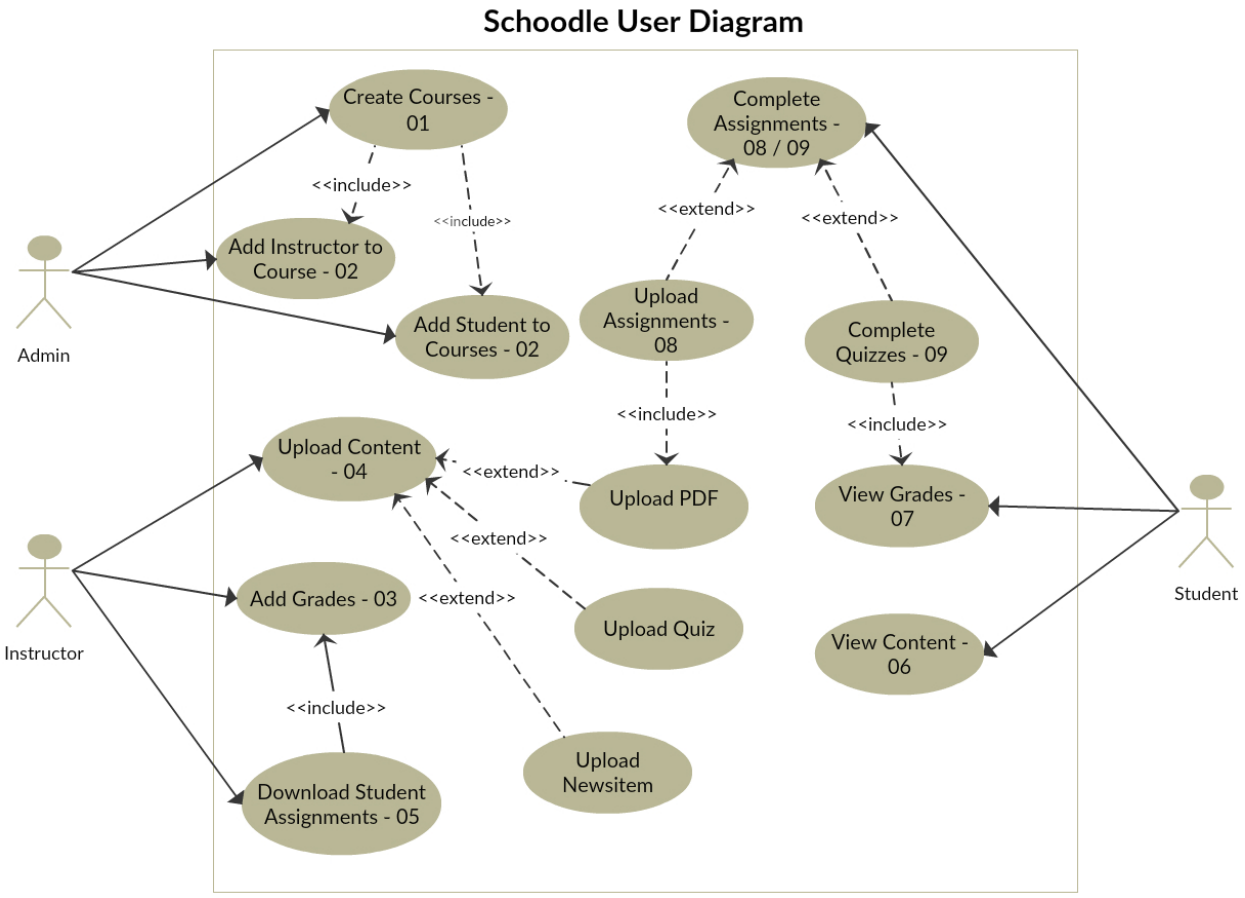
Title: Schoodle: An Advanced Educational Management System

Project Summary: The purpose of Schoodle is to provide an interactive educational platfrorm that integrates seamlessly with the in-person portion of college courses. Schoodle will provide a centralized location for accessing course content and grades. Schoodle will also allow students to electronically submit assignments and complete quizzes. Schoodle will be built in python as a web-based application and will rely on a MySQL database and will be managed via the Django framework.

Project Requirements:

Req. ID	Description
01	An Administrator can create a new Course and populates it with at least 1 student and 1 instructor
02	An Administrator can add Students and instructors to a course
03	An Instructor can upload multiple students' grades
04	An Instructor can upload course content (announcements, pdfs, quizzes)
05	An Instructor can download students' assignments and grade them
06	A Student can view course content
07	A Student can view their course grades
08	Students can submit assignment content (pdfs) for grading
09	Students can take automatically-graded quizzes

Use Case Diagram:



Use Case Documents

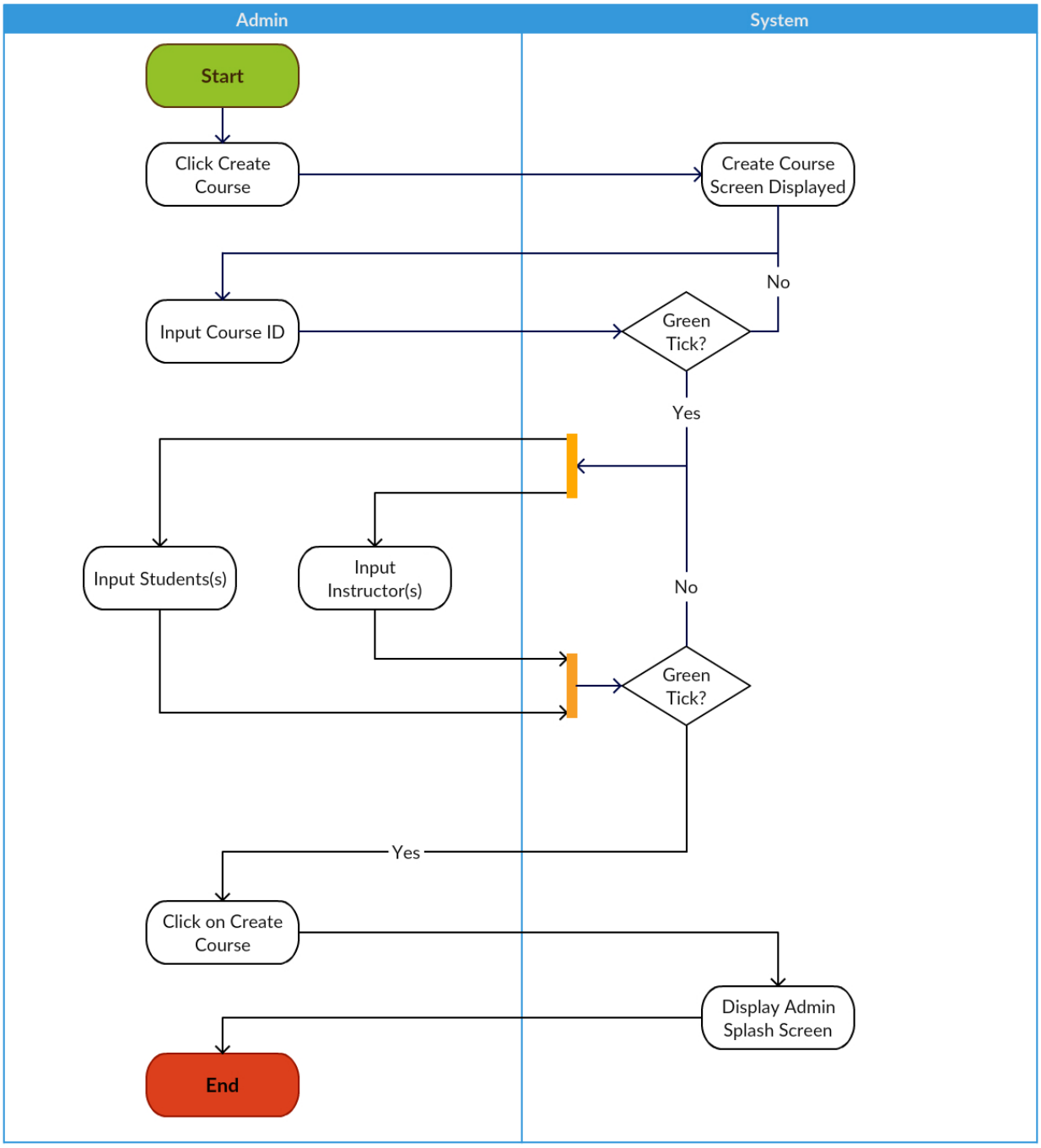
Use Case ID:	UC-1
Use Case Name:	Add Course
Description:	Administrator will add a course to the course list on Schoodle for an upcoming semester.

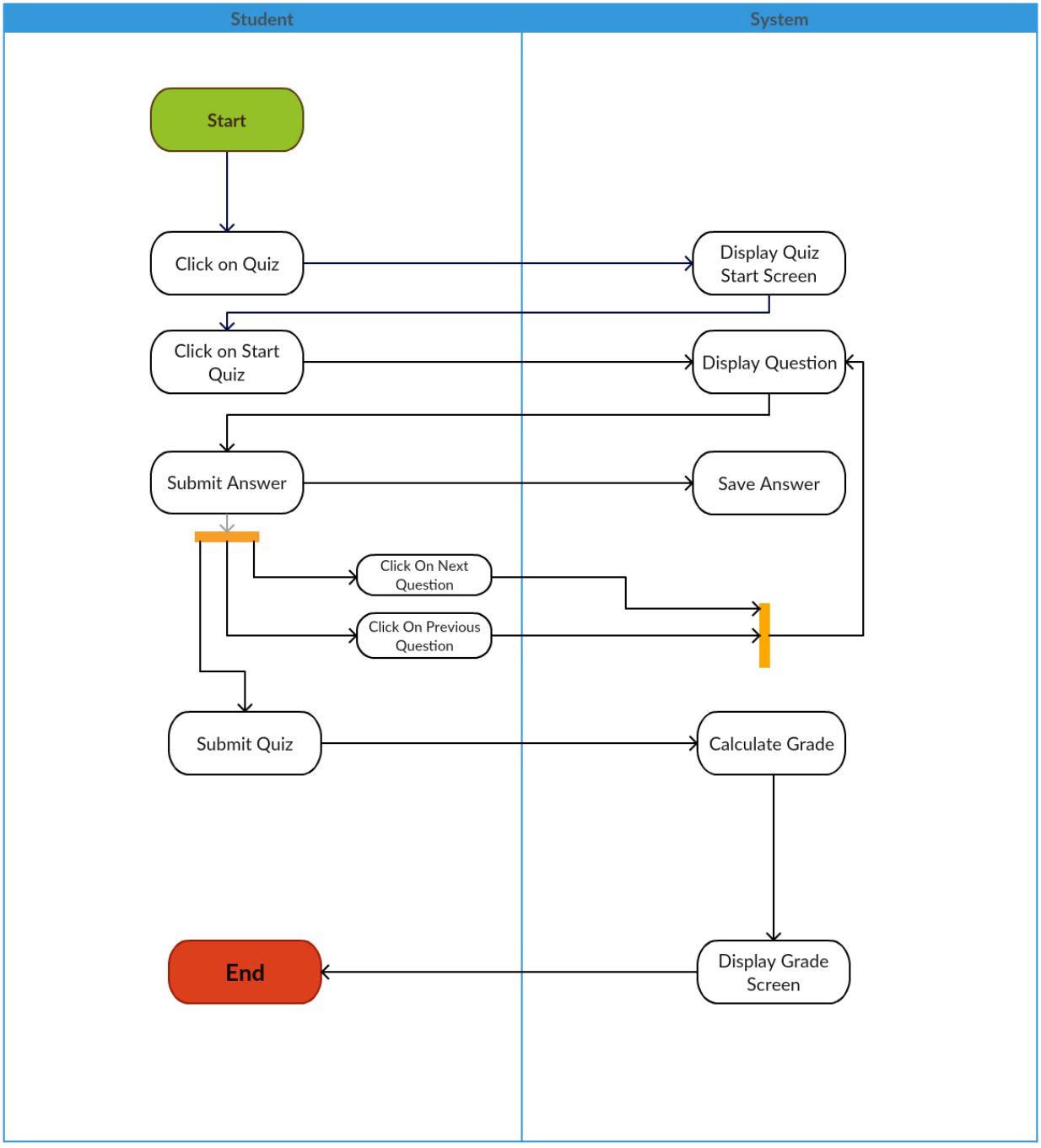
Actors:	Administrator		
Pre-conditions:	Course to be added is previously approved by the department/school.		
Post-conditions:	Course can be found on the courses listed for the upcoming semester for enrolled instructor(s) and student(s).		
Frequency of Use:	Once, beginning of a semester		
Flow of Events:		**Actor Action**	**System Response**
	1	Click on Create Course on Admin Actions List.	Create Course page is loaded.
	2	Enter Course Name	System returns green tick if course is not repeated.
	3	Enter Instructor ID	System returns green tick if instructor is not repeated.
	4	Enter Student ID	System returns green tick if student is not repeated.
	5	Click Create Course.	Added course can be seen in course's list
Variations:			
Exceptions:	System returns red 'x' next to text field if any of the ID's are repeated.		
Developer Notes:			

Use Case ID:	UC-9
Use Case Name:	Student
Description:	Students take quizzes set up by the instructor in their respective course.

Actors:	Student		
Pre-conditions:	Students are enrolled in the course, quizzes are automatically graded		
Post-conditions:	Once a quiz is submitted, students can view their grade in Course Grades Page.		
Frequency of Use:	Once a week (depending on instructor).		
Flow of Events:		**Actor Action**	**System Response**
	1	Click on quiz under upcoming assignments	Quiz page is loaded.
	2	Start Quiz is clicked	First Question is Shown
	3	Click on a choice to answer question.	
	4	Next question is clicked	Response is saved and the next question is shown.
	5	Submit quiz once all questions are answered.	Grade is calculated and grade screen is displayed
Variations:	Student clicks on previous question instead of next question		
Exceptions:			
Developer Notes:			

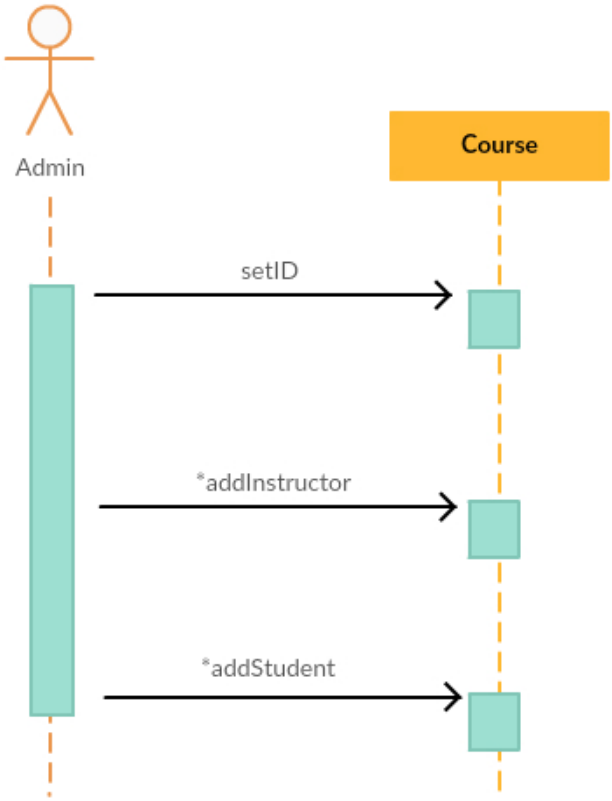
Activity Diagrams

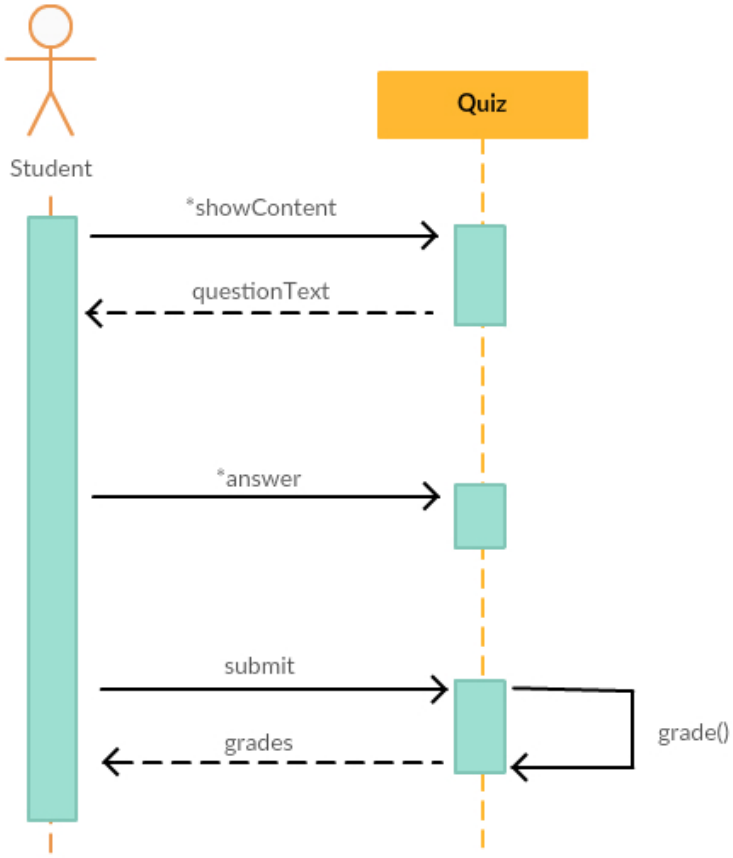



Student
System
Start
Click on Quiz
Display Quiz Start Screen
Click on Start Quiz
Display Question
Submit Answer
Save Answer
Click On Next Question
Click On Previous Question
Submit Quiz
Calculate Grade
End
Display Grade Screen

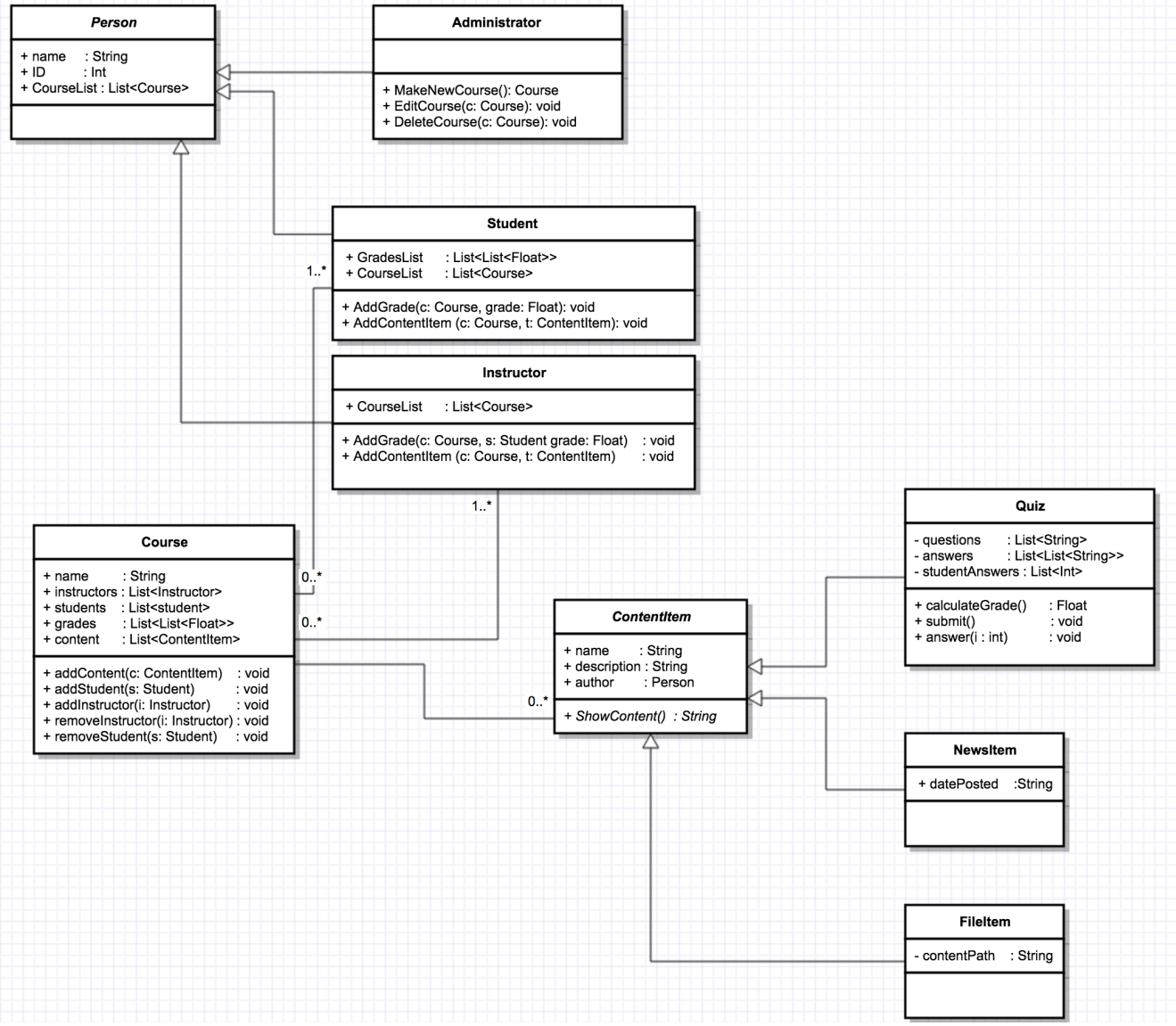
UI Mockups: Due to the length of the UI mockups, these are at the end of this document, preceded by an information slide which details the various use-case paths through the UI.

Sequence Diagrams




Student
Quiz
*showContent
questionText
*answer
submit
grades
grade()

Class Diagram

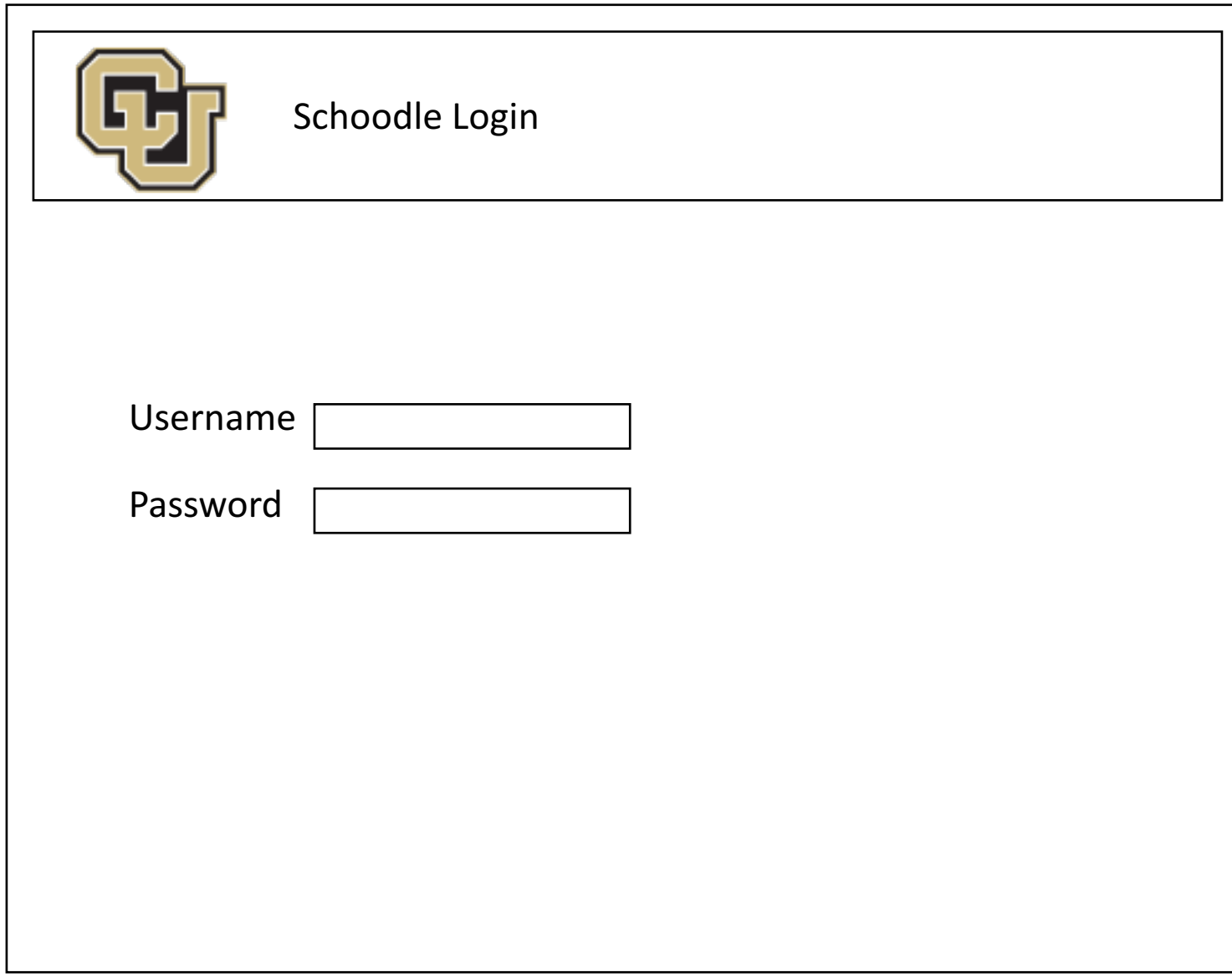


UI mockups Begin on following page.

Use case by slides

- 01: Admin adds new course: 4, 16
- 02: Admin adds students/instructors to course 4, 17
- 03: Instructor adds grades: 3,6,10
- 04: Instructor uploads content: 3,7,12
- 05: Instructor downloads student submissions for grading: 3,7,15,11
- 06: Student views content: 5,6
- 07: Student views grades: 5,9
- 08: Students upload assignment: 5,13
- 09: Student takes quiz: 5,18,14 (14 repeated for each question)

Login screen – always first step



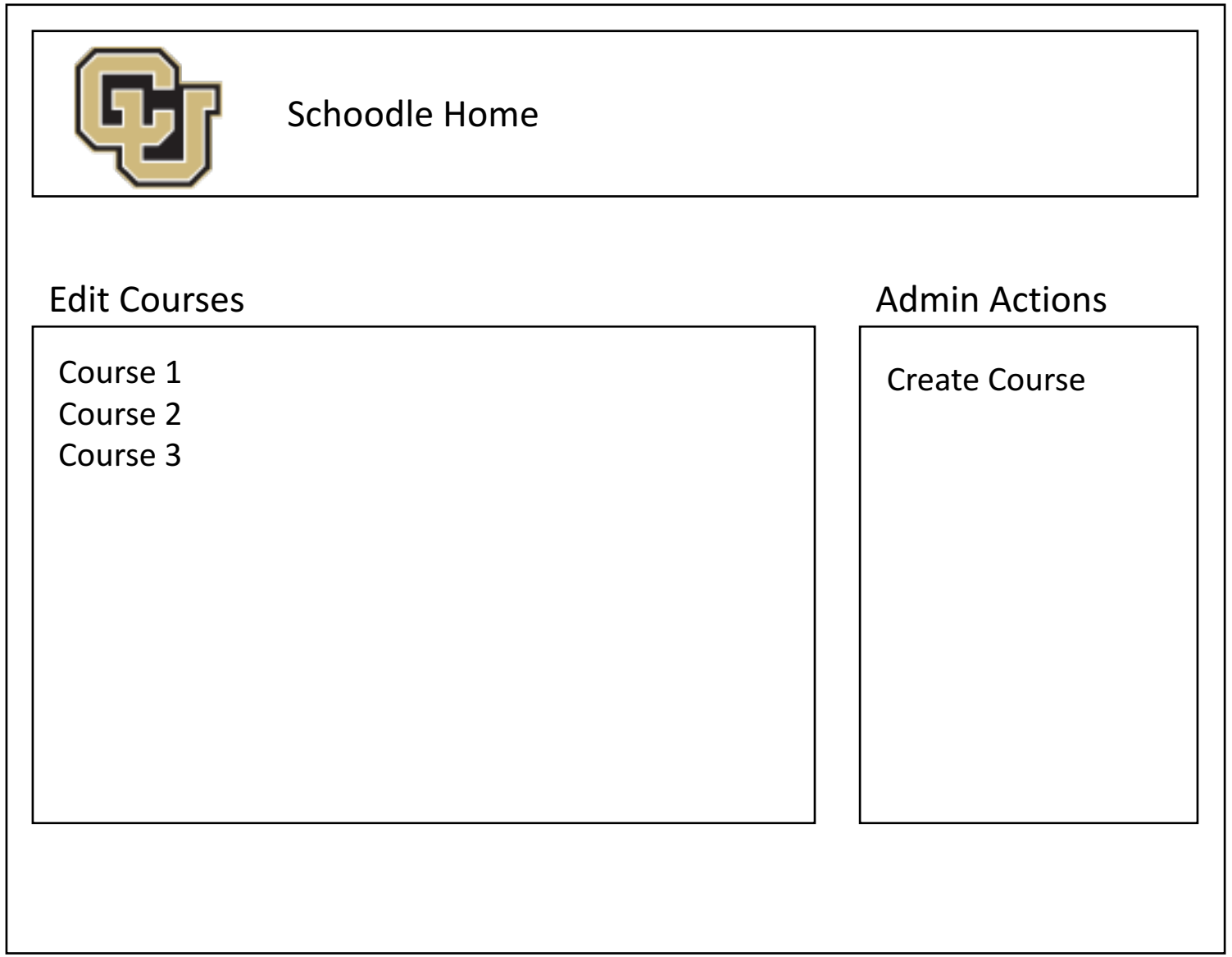
Student/instructor splash screen (after login screen)

Schoodle Home

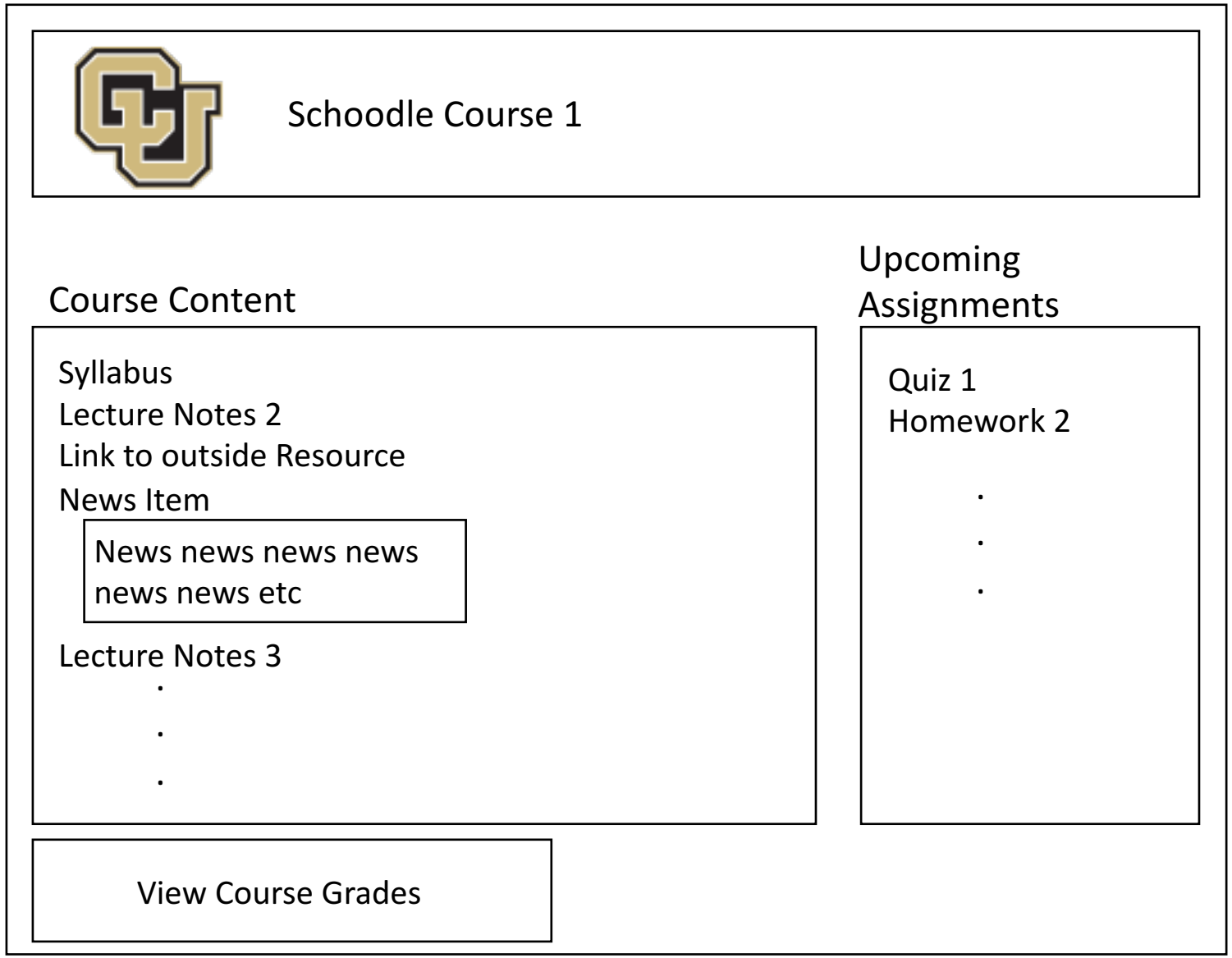
My Courses

Course 1
Course 2
Course 3

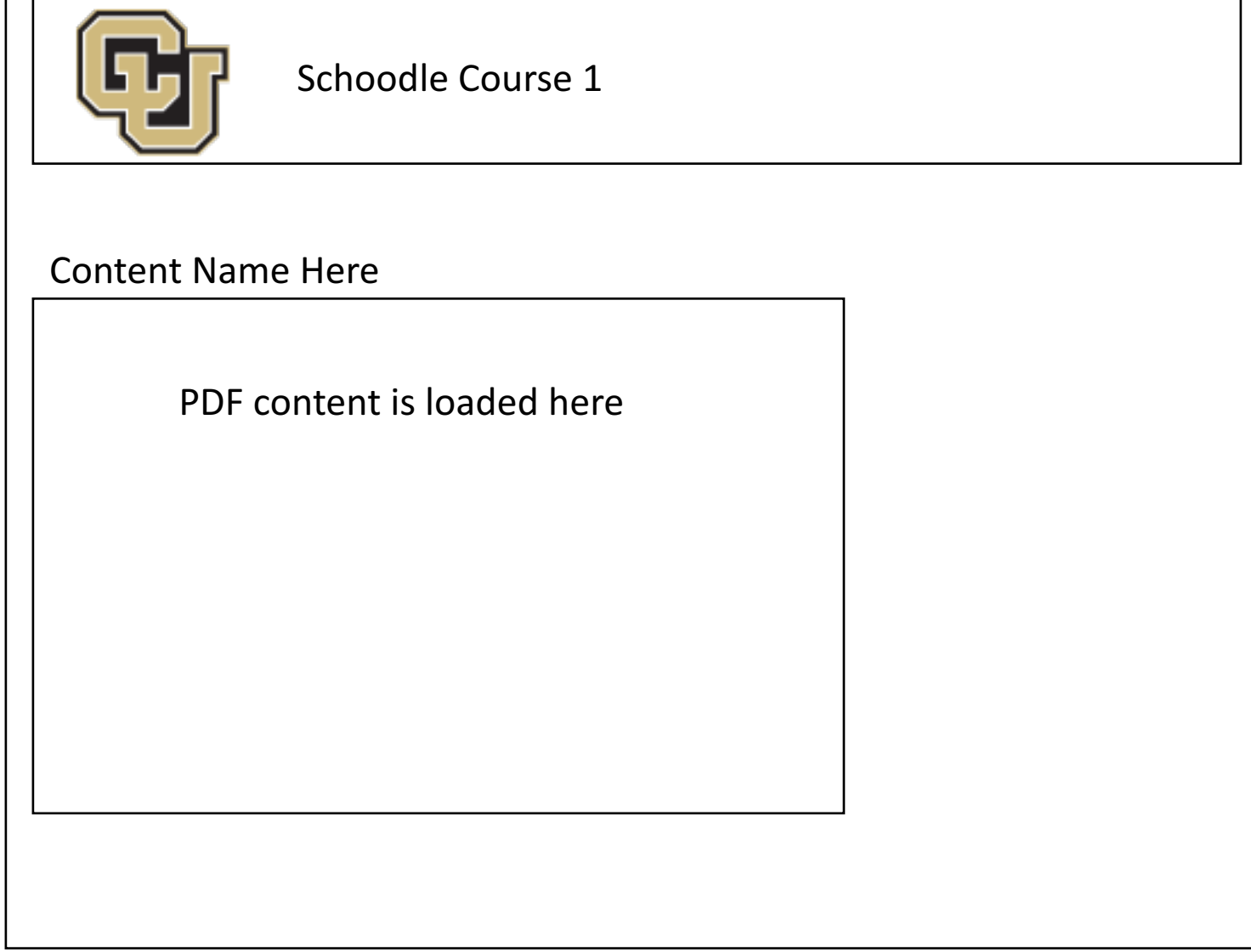
Administrator splash screen (after login screen)



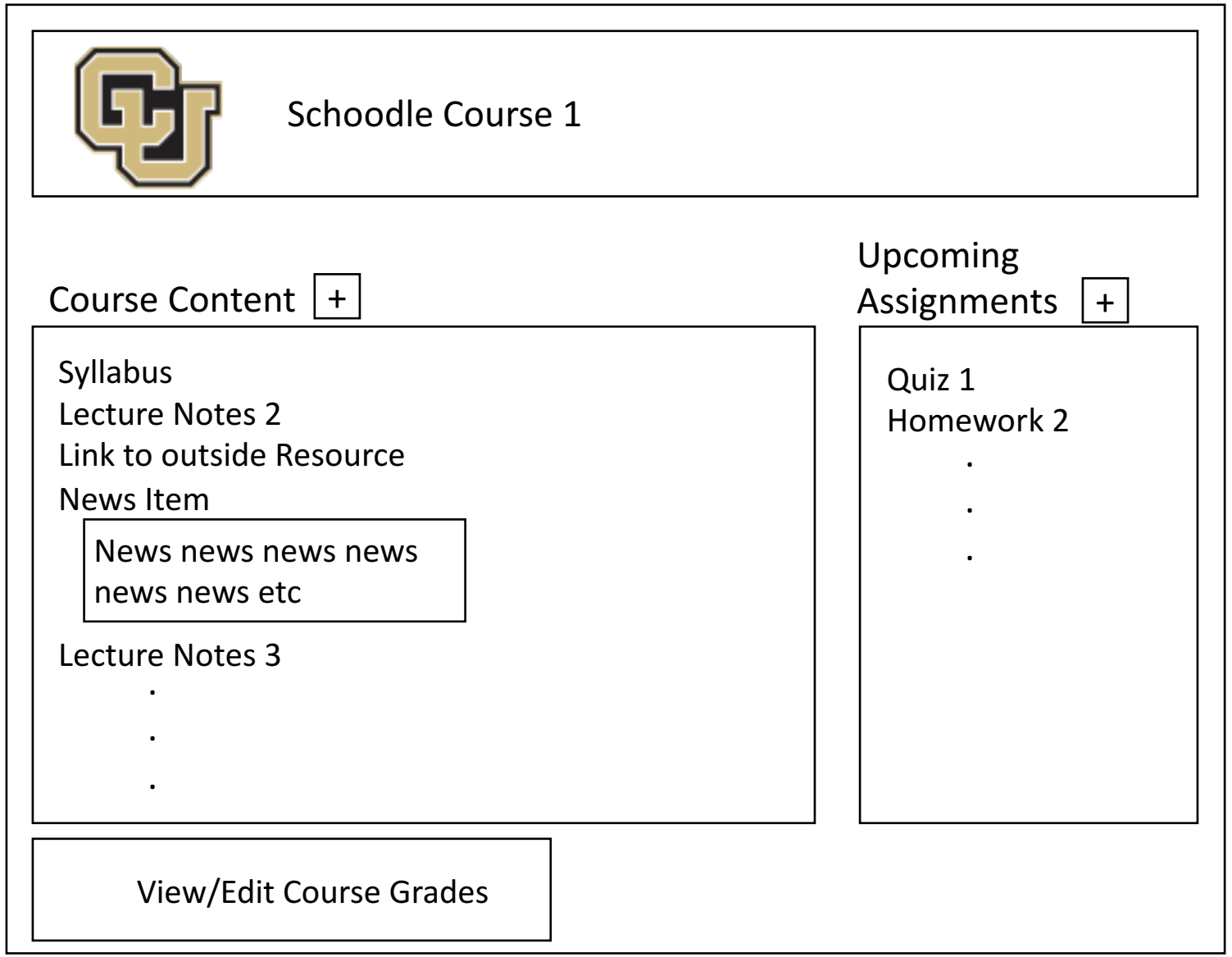
Student Course splash screen (after selecting course from splash screen)



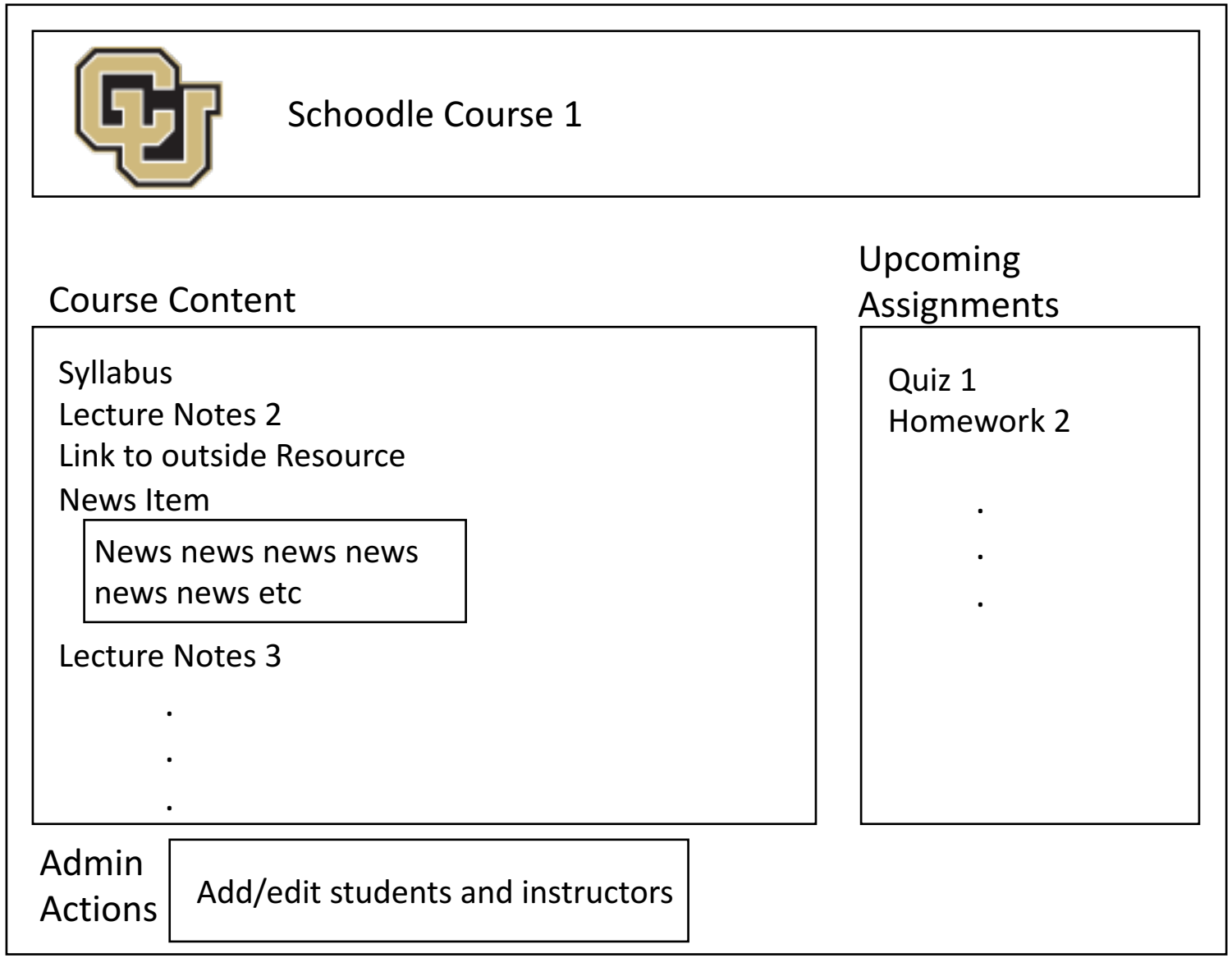
Student Content view screen



Instructor Course splash screen (after selecting course from splash screen)



Admin Course splash screen (after selecting course from splash screen)



Student Grade screen

Schoodle Course 1

Course Grades

Homework 1: 96
Homework 2: 70
Quiz 1: 99
Quiz 2: 80
Exam 1: 89

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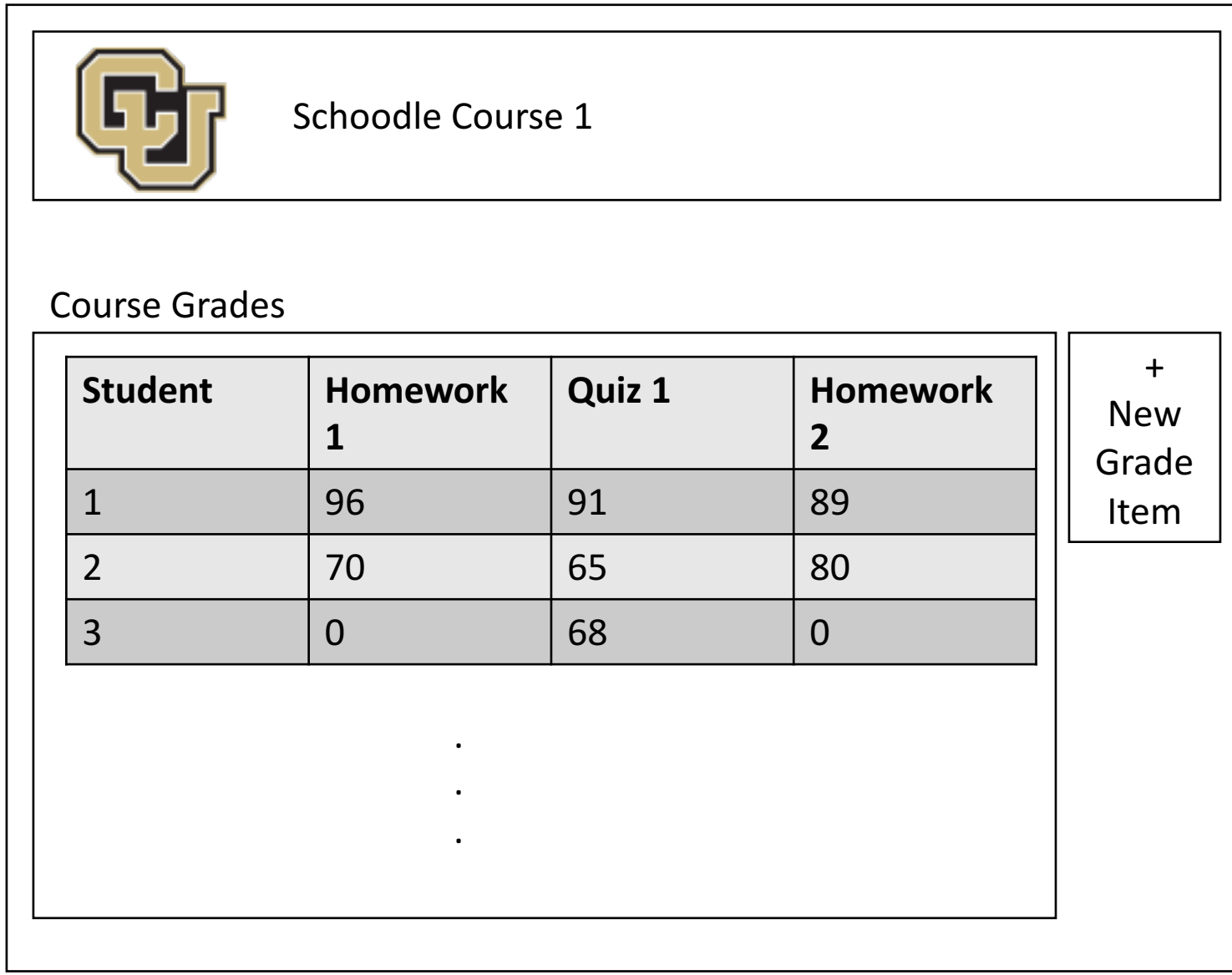
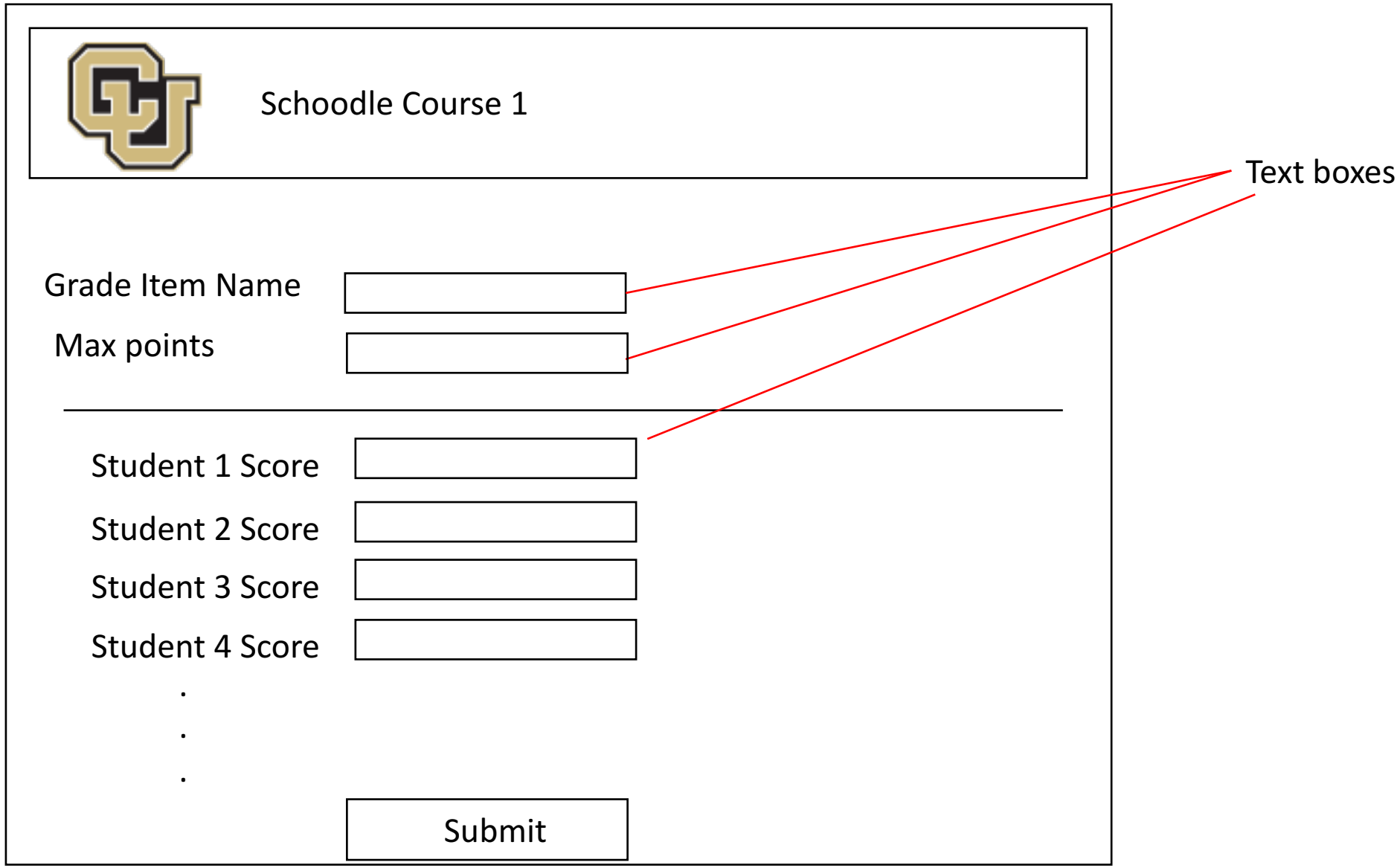
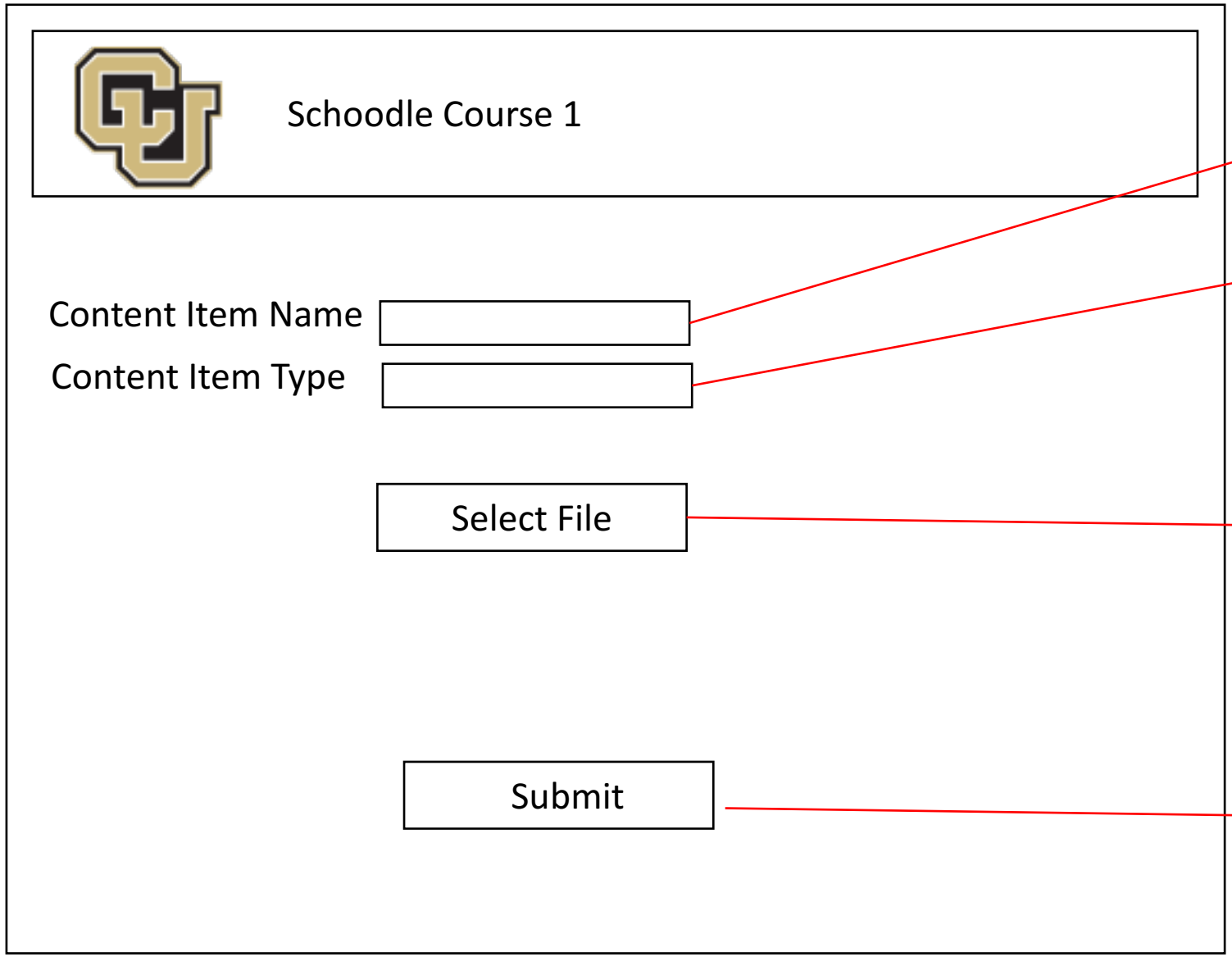
Instructor Grade screen



Instructor New Grade Item screen



Instructor Add Content screen



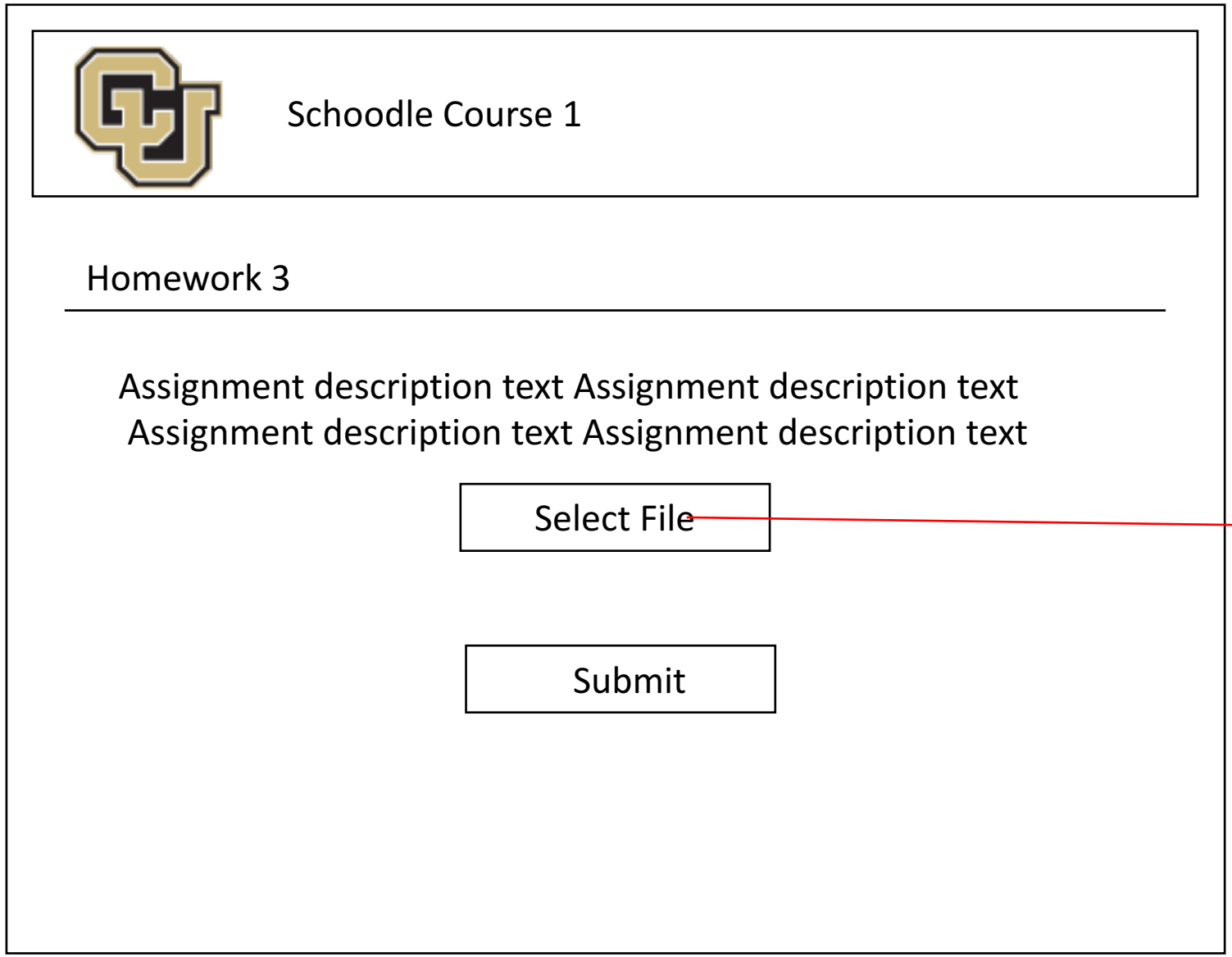
Text box

Drop down box to select one of: News, Assignment, quiz, pdf

Once type has been selected, instuctor selects file to upload

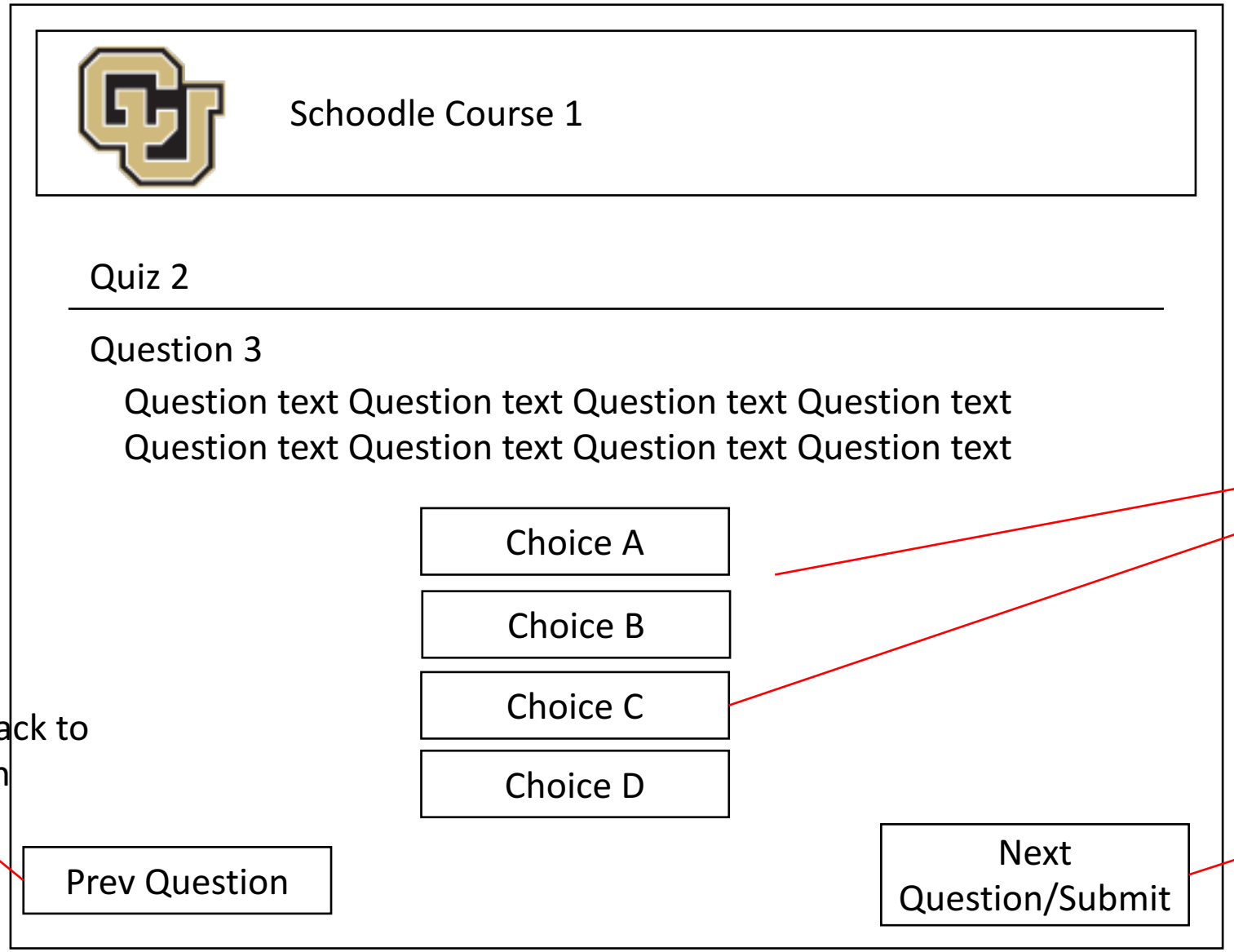
After submitting, system processes file and content is viewable on course home

Student assignment screen



Student selects file then hits submit to upload.

Student Quiz screen

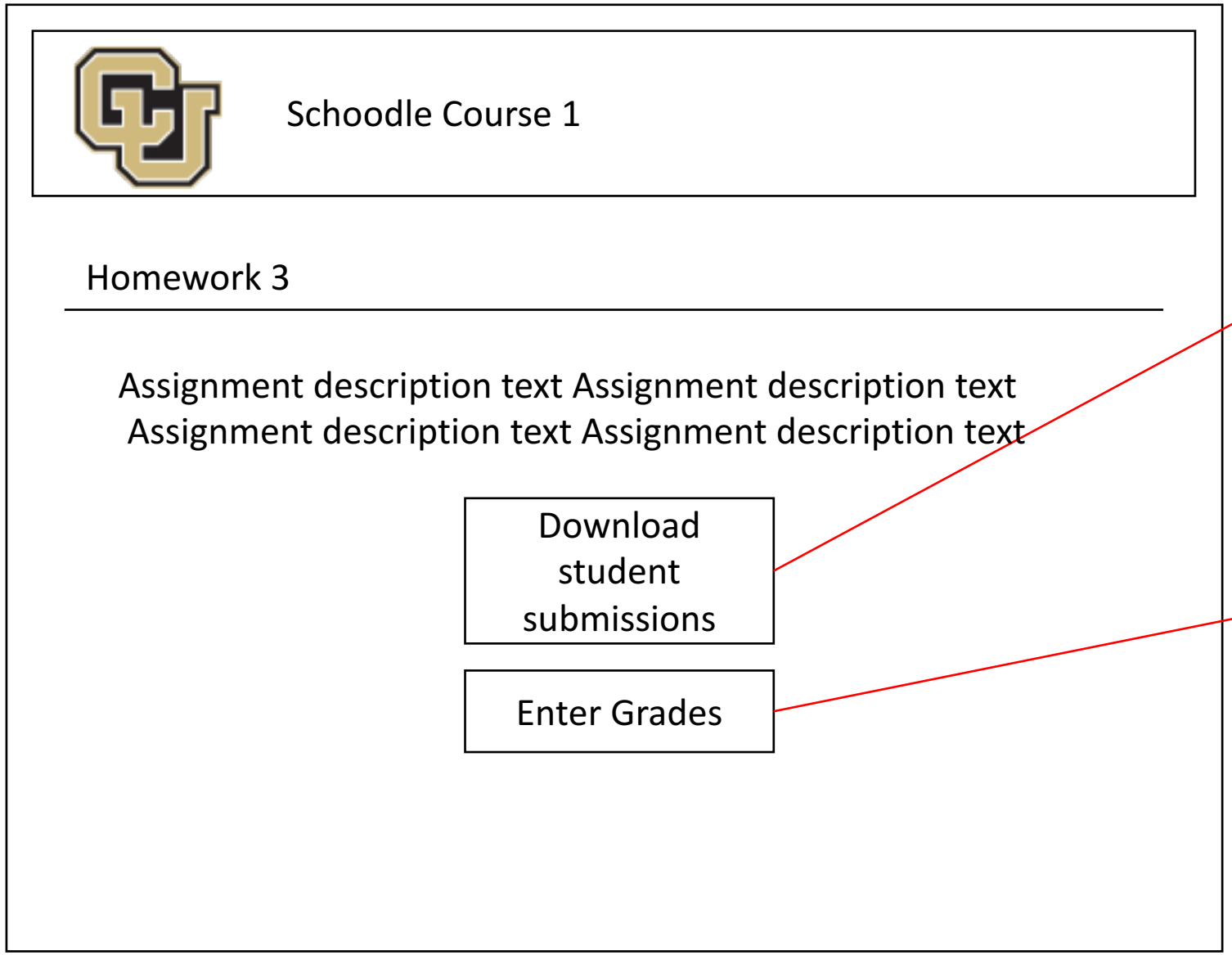


Student selects their choice

Student can go back to previous question

Student goes to next question, or if it is last question, student chooses submit

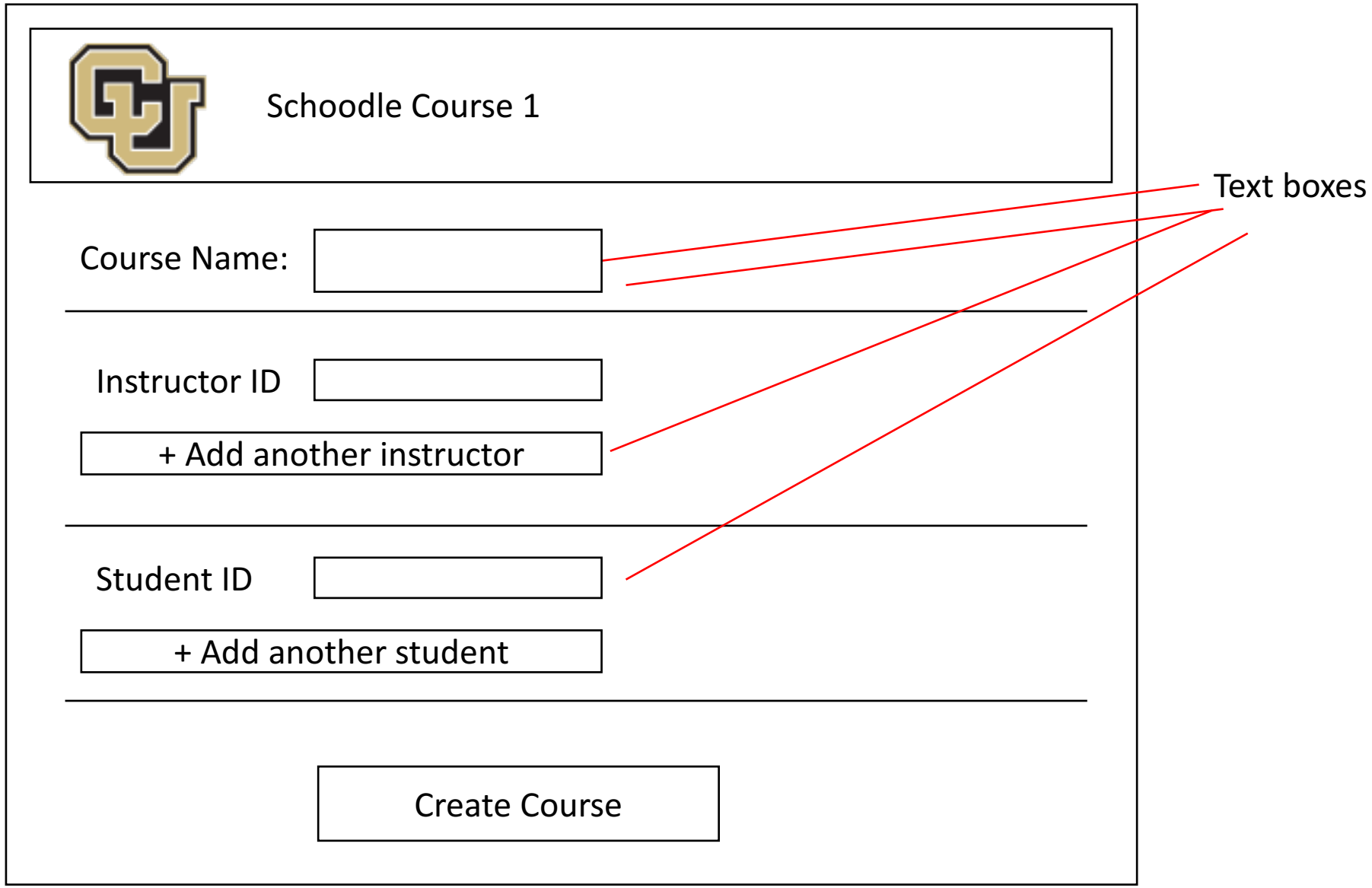
Instructor assignment screen



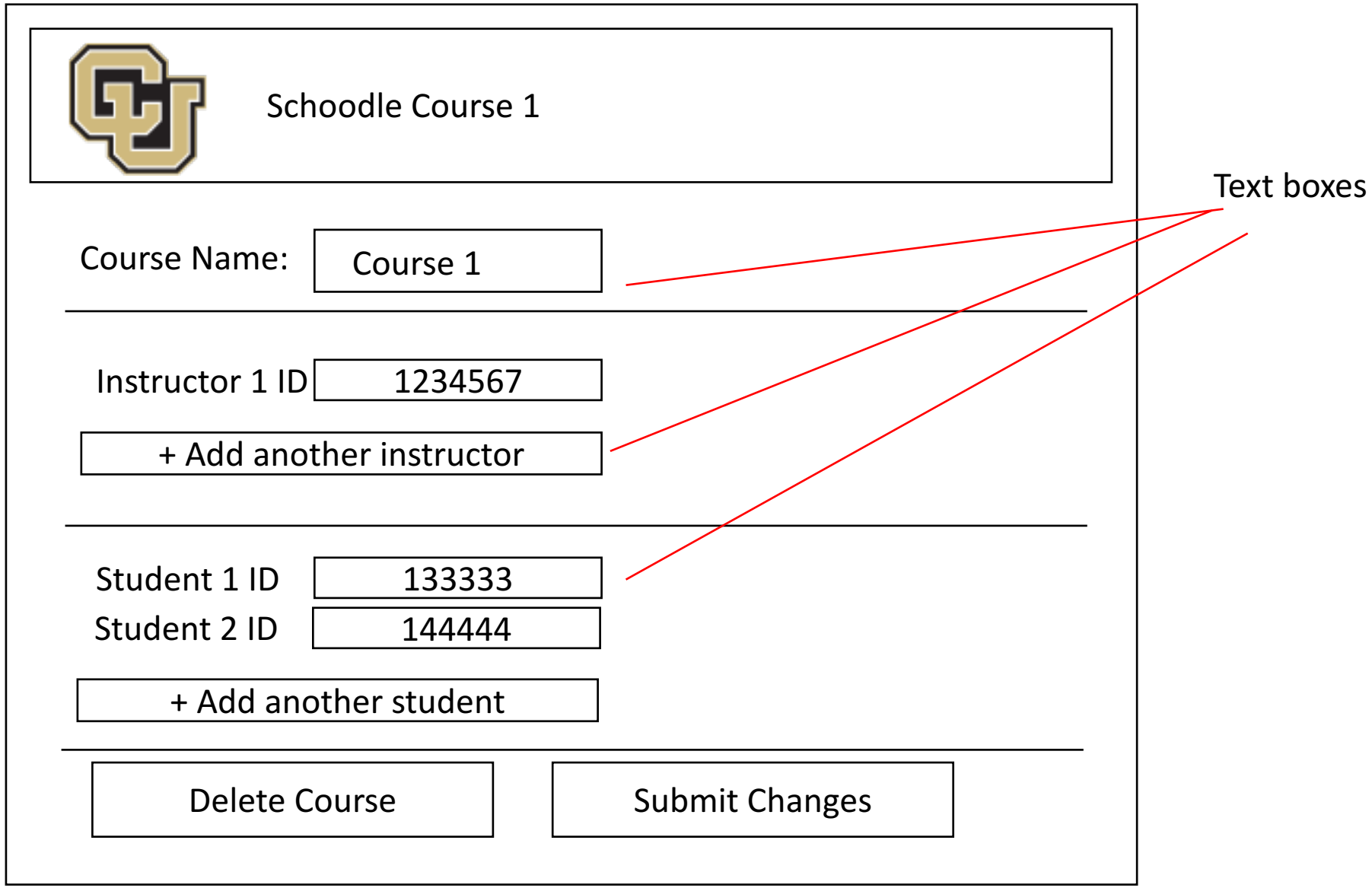
Once assignment due date is passed, instructor downloads all student submissions

Instructor clicks here to go to enter new grade item screen, and system automatically enters name as “homework 3”

Admin create course screen



Admin edit course screen



Student quiz start screen

Schoodle Course 1

Quiz 2

Quiz description text Quiz description text
Quiz description text Quiz description text

Start Quiz