

Software Design Document

Student Code Online Review and Evaluation (2.0)

S.C.O.R.E. (2.0) aims to enhance and extend the original S.C.O.R.E. application. Adding functionality in server connections, grading with rubrics, and cheat detections are all intentions to deploy the system into CSE classrooms.

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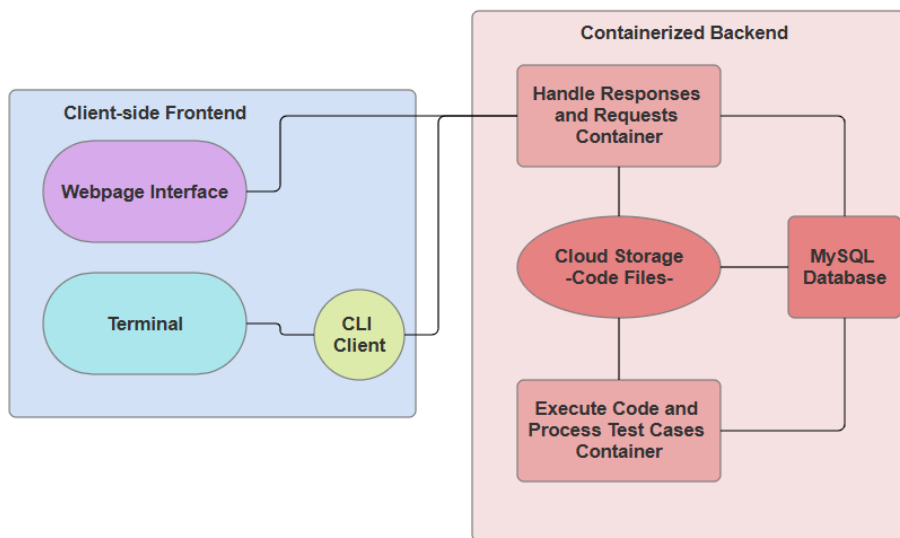
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1. Introduction

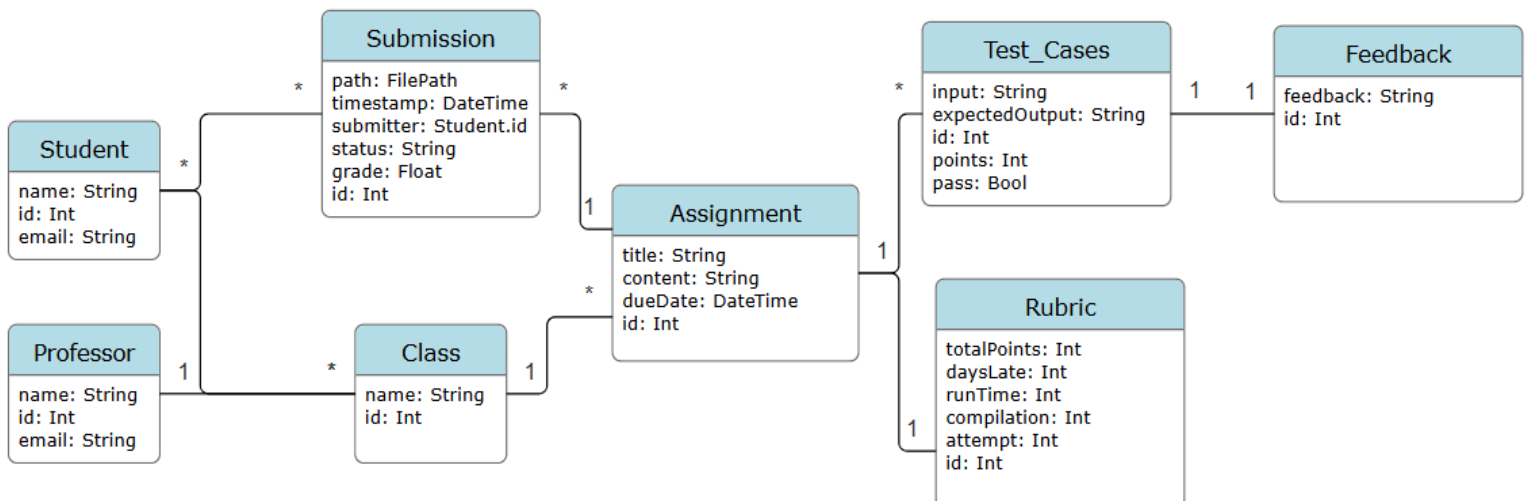
This document shows how the SCORE 2.0 additions will be designed. It contains the UML diagrams provided by the system architecture. The web application interface mockups will show the additions to the current pages, as well as entirely new pages, that showcase the introduced functionality.

2. System Architecture

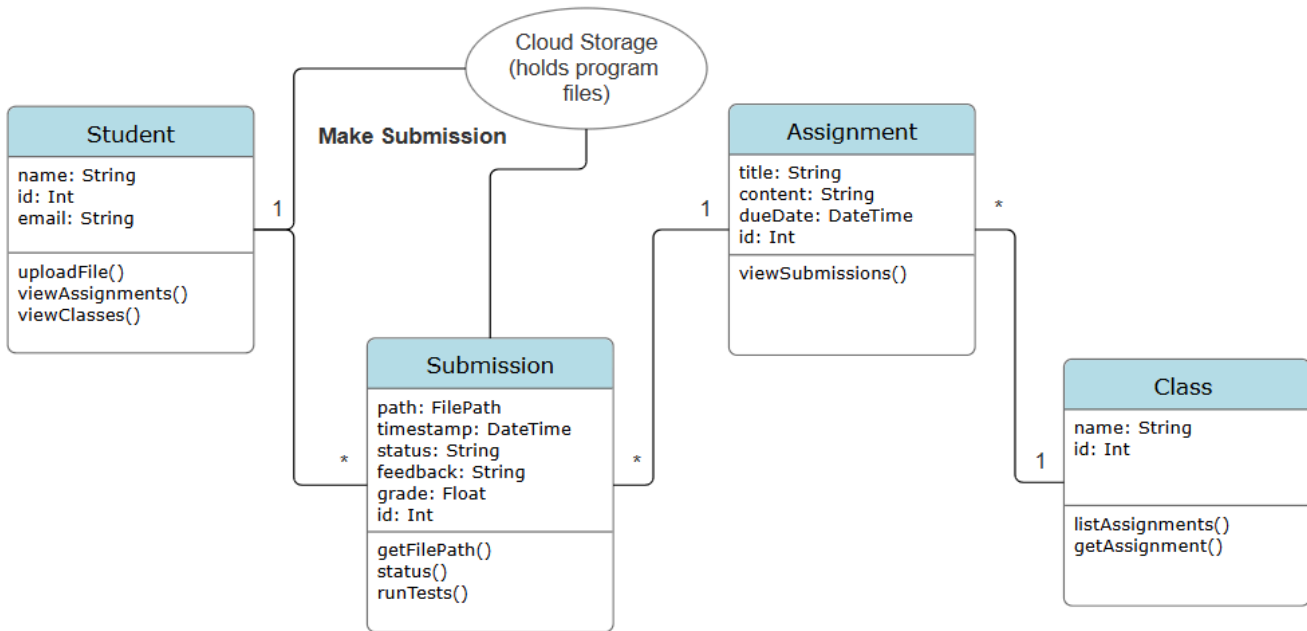


2.a UML Diagrams

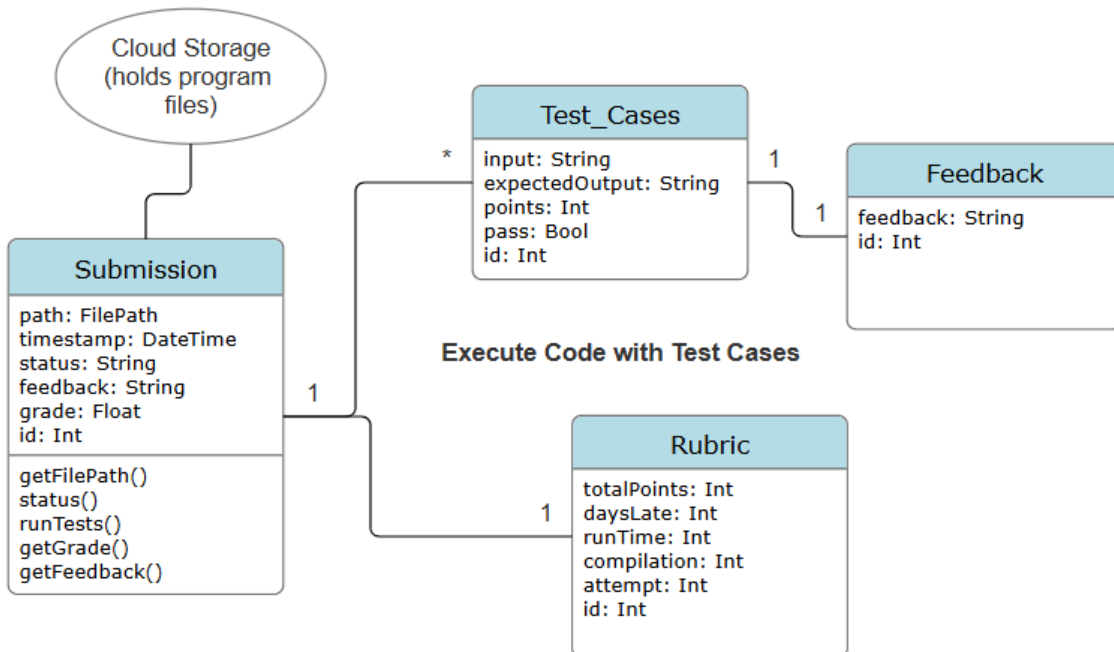
2.a.1 Generalized Database



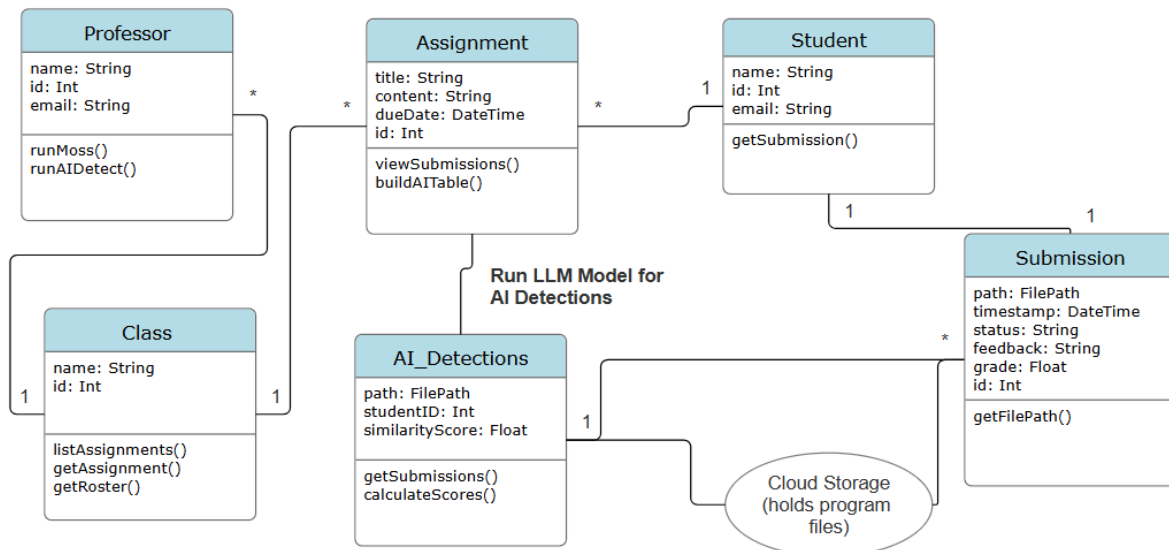
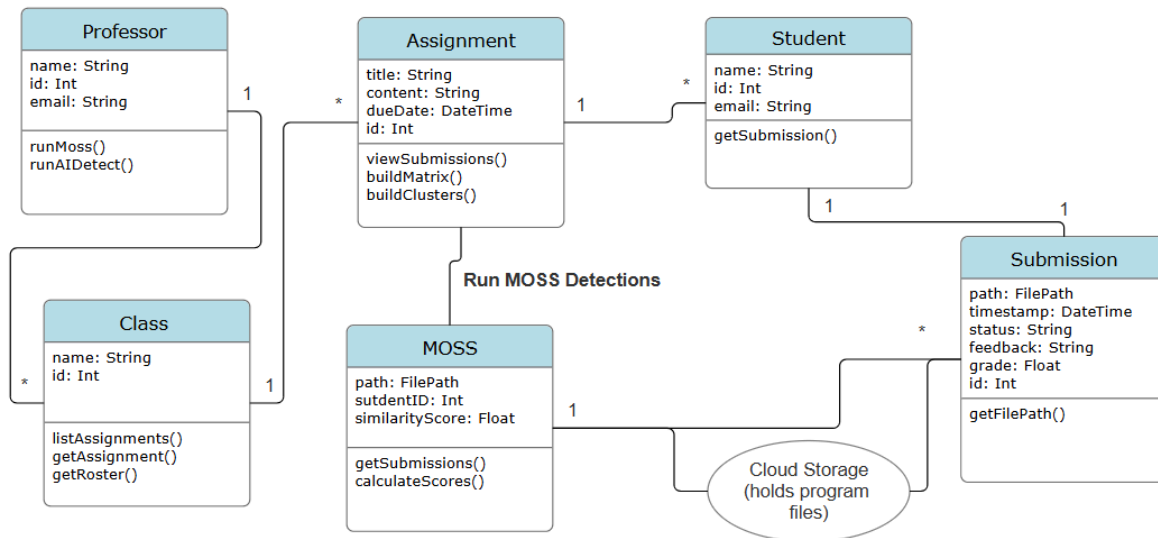
2.a.2 Submissions



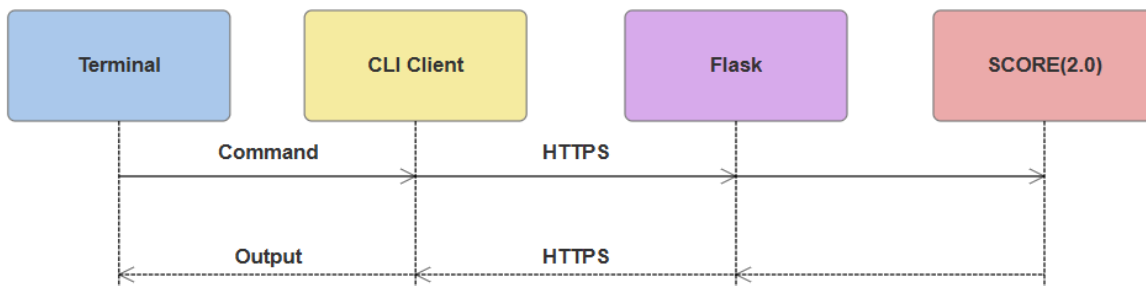
2.a.3 Grading with Feedback



2.a.4 Cheat Detections



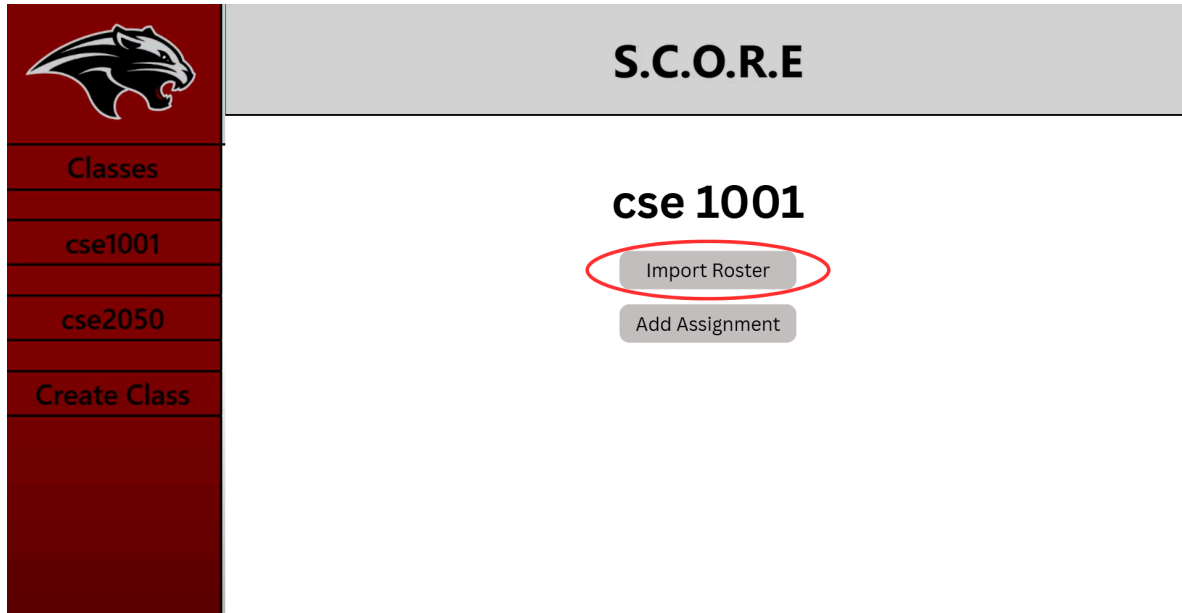
2.a.5 Command Line Interface Connection



3. Web Application Interface Mockups

All mockups are edited screenshots of the previous projects web interface. Additions/changes are circled red.

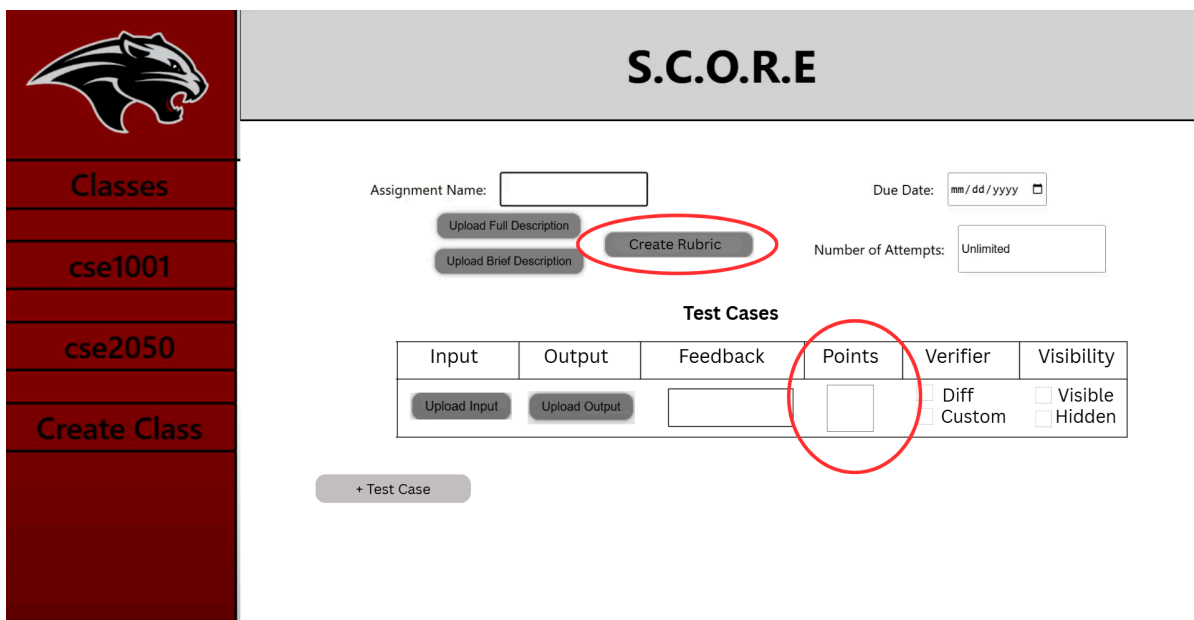
3.a Import Rosters Functionality



The screenshot shows the S.C.O.R.E. web application interface. On the left is a dark red sidebar with a white cougar head logo at the top. Below the logo are buttons: 'Classes', 'cse1001', 'cse2050', and 'Create Class'. The main content area has a light gray header with 'S.C.O.R.E.' in bold. Below the header, 'cse 1001' is displayed. Underneath, there are two buttons: 'Import Roster' (circled in red) and 'Add Assignment'.

3.b Rubric Functionality


3.b.1 Add rubric to an assignment / give an assignment's test cases points



The screenshot shows the S.C.O.R.E. web application interface for adding a rubric and test cases. On the left is a dark red sidebar with a white cougar head logo at the top. Below the logo are buttons: 'Classes', 'cse1001', 'cse2050', and 'Create Class'. The main content area has a light gray header with 'S.C.O.R.E.' in bold. Below the header, there is a form for adding a rubric. The form includes fields for 'Assignment Name' and 'Due Date' (with a calendar icon). Below these are buttons: 'Upload Full Description', 'Create Rubric' (circled in red), and 'Upload Brief Description'. To the right of these buttons is a 'Number of Attempts' field with 'Unlimited' selected. Below the form is a table titled 'Test Cases'. The table has columns: 'Input', 'Output', 'Feedback', 'Points', 'Verifier', and 'Visibility'. The 'Points' column is circled in red. Below the table is a '+ Test Case' button.

Input	Output	Feedback	Points	Verifier	Visibility
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/> Diff <input type="checkbox"/> Custom	<input type="checkbox"/> Visible <input type="checkbox"/> Hidden

3.b.2 Rubric Page



S.C.O.R.E

Classes

cse1001

cse2050


Create Class

Rubric for Assignment <Title>

Factors	Points
Total:	
Compilation:	
Attempt:	
Under __ seconds:	
After __ days, remove:	

Submit Rubric

3.c Detect AI, Detect Collusion, Export Grades Features



S.C.O.R.E

Classes

cse1001

cse2050


Create Class

Demo Submissions

Student Name	Student Email	Numeric Grade
Firstname Lastname	exampleemail@gmail.com	2/2

Run AI Checker Run Similarity Scores Export Grades

3.c.1 Click “Run AI Checker”



Classes

cse1001

cse2050

Create Class

S.C.O.R.E

Demo Submissions

Student Name	Student Email	Numeric Grade
Firstname Lastname	exampleemail@gmail.com	2/2

Run AI Checker


Run Similarity Scores

Export Grades

Set Threshold (1-100)

Run

3.c.2 Click “Run Similarity Scores”



Classes

cse1001

cse2050

Create Class

S.C.O.R.E

Demo Submissions

Student Name	Student Email	Numeric Grade
Firstname Lastname	exampleemail@gmail.com	2/2

Run AI Checker

Run Similarity Scores

Set Threshold (1-100)

Run

☐ Download Full Matrix

☐ Load Clusters Graph

Export Grades