

Student Code Online Review and Evaluation Developer Manual

A terminal program and web-application for use in Florida Tech's CSE department to facilitate the submission of code for professor created assignments.

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Introduction

1.1 What is SCORE?

SCORE, or Student Code Online Review and Evaluation is a remote server application designed to assist students and professors at Florida Tech with the submission and grading process of code based assignments. SCORE allows professors to create courses and assignments, and for students to view assignments and submit their code solutions. The system allows professors to attach meaningful information to each test case in the testing suite, and the system returns that information to the student when they failed the test case. The main goal of SCORE is to make the code submission process not only easier, but also to create a platform that allows for more impactful feedback from professors to students.

1.2 How Do I Use It?

SCORE is a system that can be interacted with in a couple of ways. SCORE can be interfaced via SSH with your favorite command line tool or can be accessed via any web browser. The tool has the same capabilities across both platforms so there will be no interruption to your workflow by using either one of these methods. For a more detailed explanation on either system's specific usages please refer to their specific documentation sections down below.

1.3 OAuth Data Collection

SCORE relies on Google OAuth to authenticate and verify users accounts. Any data obtained via OAuth is guaranteed to be used solely for the purposes of user verification, platform safety, and verifying platform integrity. We will never sell or use any obtained data for a profit or use it for any other purpose, than the ones listed above.

Shell Interface

2.1 Getting Started

The Shell Interface is a command line interface available over the Florida Tech network via SSH. Once the user accesses the remote server they will be prompted with an OAuth login request that will appear in their default system browser. After logging into the system you will be greeted with the Main Page.

2.2 Accepted Commands

From the SSH connection there are a few commands that can be executed to perform different tasks, in respect to your account. Note that students cannot edit or manipulate class data or other users data.

2.2.1 Quit Command

This command is to enable you to leave the application. To leave the application simply enter “q”, “quit”, or “exit”.

2.2.2 Class Command

This command allows you to list all assignments in a given class that you are an owner of. The command to execute is “class”. This will open a sub menu where you will enter the class name.

2.2.3 View Command

This command allows you to view the details around a specific assignment or assignment submission in a given class. To execute this command enter “view”. This will open a dialogue that will ask for a class name and the assignment or submission that you would like to view the details of.

2.2.4 Create-Class Command

The Create-Class command is a command that creates a new class that you can register students to, create assignments for, and administer as you wish. The command can be executed by entering “create-class” which will enter you into a system dialogue that will gather all the necessary information about the class. When finished it will generate a new class with you as the professor.

2.2.5 Create-Assignment Command

The Create-Assignment command is a command that creates a new assignment for a given class. The command can be executed by entering “create-assignment”; the system will prompt you for more information regarding the assignment, including test case information. When you complete this process a new assignment will be created and visible to your class members.

2.2.6 Delete-Class Command

The Delete-Class command is a command that enables you to delete any class that you are a professor of. By entering “delete-class” you will be asked to enter a class name. When you do, the system will fully delete all associated class data, including but not limited to assignments, user members, test cases, and all stored class data. There are no back ups and this is a final command for a class. The class will immediately be inaccessible to all users, including yourself.

2.2.7 Delete-Assignment Command

The Delete-Assignment command is a command that enables you to delete any assignment in a class that you are a professor of. By entering “delete-assignment: the system will prompt you to enter a class name and assignment name. When you do, the system will fully delete all associated assignment data, including but not limited to assignment attempts, the problem data, test cases, and all stored user data. The assignment will immediately be inaccessible to all users, including yourself and all awaiting to be graded submissions void.

2.2.8 Add-Student Command

The Add-Student command enables you to add students to a class that you are a Professor of. This can be accessed by running “add-student” and entering the students email address. This will add any account with the address to a specified class. This command will fail if the user has not yet made an account.

2.2.9 Remove-Student Command

The Remove-Student command allows you to remove students from a class that you are a Professor of. This can be accessed by running “remove-student” and entering the students email address. This will remove any account with the address from a specified class. This command will fail if the user is not a member of the specified class.

2.2.10 Commands Command

The `commands` command will list all of the currently explained commands to you from within the command line interface; acting as a manpage, it helps you to remember the commands you can use. This command can be executed using “`commands`”.

Web Interface


3.1 Getting Started

The Web Interface is a website available over the Florida Tech network. When navigated to you will be prompted to login via Google OAuth. If you do not have an account at this time, it will require you to make an account. After you are fully logged in, you will land on the SCORE home page. From this page you can navigate to all of your classes, assignments, and view submission history.

3.2 Pages

3.2.1 Class Page

Each class page will contain a list of assignments for that class. These assignments will have a short detailed description of each assignment, a view grades button, and a final due date for each assignment. This page can be navigated to by clicking on a class' button in the left hand navigation menu.



S.C.O.R.E

cse2050


Edit Course

+ Create Assignment

Assignment prac		X
Due: 2025-04-16	View Student Submissions	
<u>Description</u>		

3.2.2 Assignment Page

Each assignment has a specific page that includes more specific information in regards to the assignments requirements. This page can be navigated to by selecting an assignment's assignment card from the class page.



S.C.O.R.E

new b2

Assigned: 2025-04-14


Due: 2025-04-23

Description

You are managing a transportation network of one-way roads between cities. People travel through the transportation network one by one in order all starting from the same city, and each person waits for the person before them to stop moving before starting. The people follow a simple algorithm until they reach their destination: they will look at all the outgoing roads from the current city, and choose the one that leads to the city with the smallest label. A person will stop when they either reach their destination, or reach a city with no outgoing roads. If at any point someone fails to reach their destination, the rest of the people still waiting in line will leave. Before each person enters the transportation network, you can permanently close down any subset of roads to guarantee they reach their destination. The roads that you choose to close down will not be available for future people. There are cities, labeled from 1 to 100. There are directed roads, and each road will always be from a lower labeled city to a higher labeled one. The network will form a rooted tree with city 1 as the root. There are people that want to travel through the network. Each person starts from city 1 and has a specific destination city in

3.2.3 Grading Portal Submission Page

This page can be accessed by clicking on the “View Student Submissions” button from the assignment page. This will pull up a list of each student alongside their highest graded submission.



S.C.O.R.E

Classes

cse2050

cse1001


Create Class

Demo Submissions

Student Email	Numeric Grade
ccollins2021@my.fit.edu	2/2

3.2.4 Edit Course Page

The edit course page can be found at the top of a Class Page. This page contains a list of all currently registered students in a class and an add student button, which allows a professor to add a student by entering their email address.



S.C.O.R.E

Classes

cse2050

cse1001

Create Class

Edit Course

Current Roster

ccollins2021@my.fit.edu

Add a New Student:

Add Student

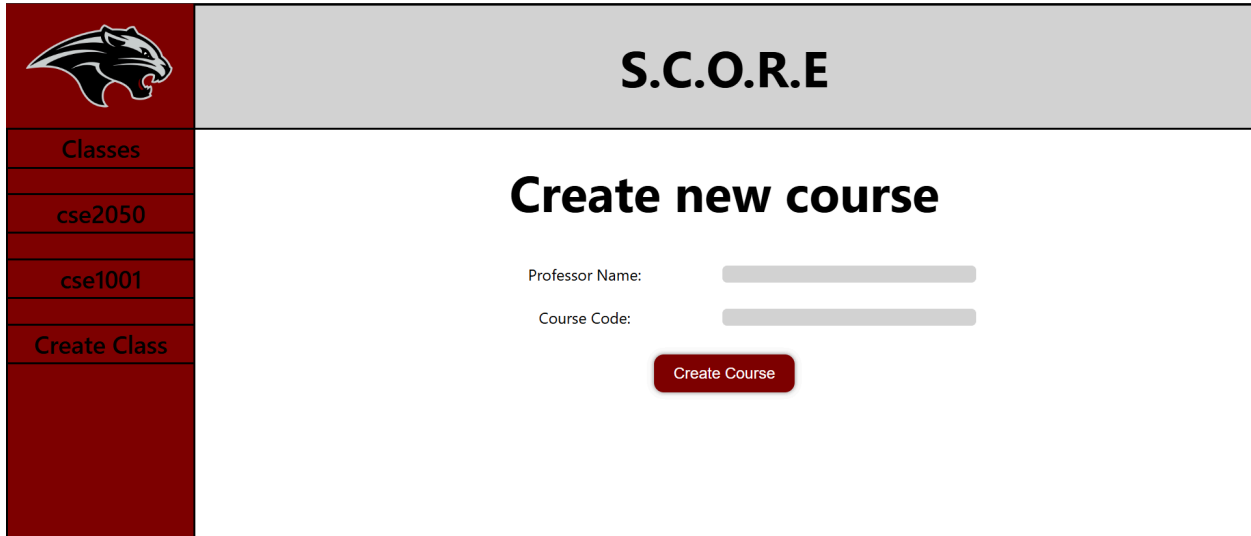
Due: 2025-04-23

View Student Submissions

Description

3.2.5 Create Class Page

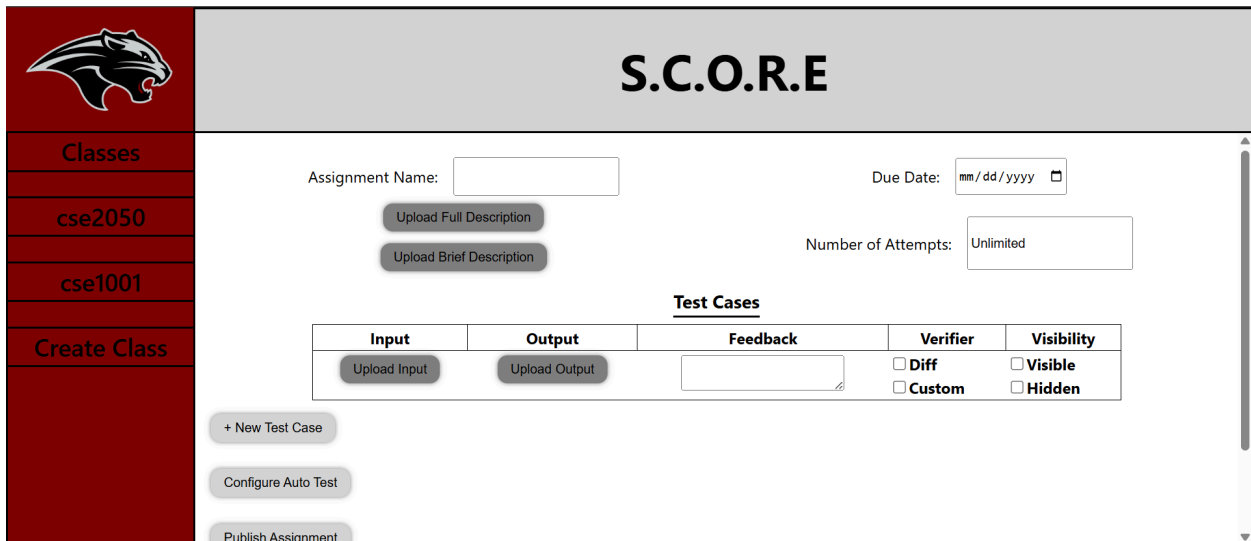
The create class page can be accessed at the bottom left of the screen by clicking the “Create Class” button. This page has 2 text boxes that take the professor's name and course name. Once filled in, the professor can select “Create Course” and a new course will be created.



The screenshot shows the S.C.O.R.E. interface for creating a new course. On the left is a dark red sidebar with a white cougar head logo at the top. Below the logo are five buttons: "Classes", "cse2050", "cse1001", and "Create Class" (which is highlighted in a lighter red). The main content area has a light gray header with "S.C.O.R.E" in bold black text. Below the header, the title "Create new course" is centered in bold black. Underneath the title are two text input fields: "Professor Name:" and "Course Code:". Below these fields is a red button with white text that says "Create Course".

3.2.6 Create Assignment Page

The create assignment page can be used to create new assignments for a class. It can be navigated to by clicking on the “+Create Assignment” button from the Class Page. This page can be used to upload assignment descriptions, test cases, professor feedback, configure accepted programming languages, and configure a number of attempts for an assignment. Once completed the “Publish Assignment” can be used to post the new assignment to all class members.



The screenshot shows the S.C.O.R.E. interface for creating an assignment. The sidebar on the left is identical to the previous page, with "Create Class" highlighted. The main content area has a light gray header with "S.C.O.R.E" in bold black text. Below the header, the form for creating an assignment is displayed. It includes an "Assignment Name:" text box, a "Due Date:" dropdown menu set to "mm/dd/yyyy", and two buttons: "Upload Full Description" and "Upload Brief Description". To the right of these is a "Number of Attempts:" text box set to "Unlimited". Below these fields is a section titled "Test Cases" with a table. The table has five columns: "Input", "Output", "Feedback", "Verifier", and "Visibility". Under "Input" is an "Upload Input" button. Under "Output" is an "Upload Output" button. Under "Feedback" is a text box. Under "Verifier" are two checkboxes: "Diff" and "Custom". Under "Visibility" are two checkboxes: "Visible" and "Hidden". Below the table are three buttons: "+ New Test Case", "Configure Auto Test", and "Publish Assignment".

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