

Module 4 Lab Assignment.

In this lab assignment, you will **enhance** the *Student Engagement Calculator* application that you developed in Module 3 lab assignment. All form controls and variables that you include in your project **MUST** have a proper and relevant name. For each improper naming, 0.05 point will be deducted.

The details about developing the application can be accessed from previous lab's guide. In the previous lab assignment, you were displaying a rather generic error message per each group if there is any invalid entry. In this lab, you will focus on printing a custom error message specific to each textbox. For example, if there is an invalid entry in the highlights field, the error message should indicate that the error was in the highlight textbox as shown in the figure below.

The screenshot shows a Windows application window titled "Form1" with a title bar containing standard minimize, maximize, and close buttons. The application is titled "Student Engagement Calculator". It features four distinct input sections arranged in a 2x2 grid:

- Readings (Orange background):** Contains three textboxes: "Number of page views" (423), "Number of highlights" (32d), and "Number of unread pages" (2). A red error message "Invalid entry in the highlights textbox." is displayed below the inputs.
- Discussions (Light Blue background):** Contains three textboxes: "Number of questions" (2), "Number of comments" (15), and "Number of unread posts" (1). A blue calculated score "Discussion score is : 17" is shown at the bottom.
- Videos (White background):** Contains three textboxes: "Average minutes watched" (150), "Number of play/pause" (45), and "Minutes skipped" (5). A blue calculated score "Video score is : 39" is shown at the bottom.
- Quizzes (Light Blue background):** Contains three textboxes: "# of failed questions" (3), "Average quiz score" (9.9), and "Average # of attempts" (3). A blue calculated score "Quiz score is :8" is shown at the bottom.

At the bottom center of the window, a blue calculated score "General engagement score : 64" is displayed. Below this, a button labeled "Calculate Engagement Scores" is highlighted with a blue border.

Below is a sample screen when there is an invalid entry in the page views textbox.

The screenshot shows a Windows application window titled 'Form1'. The application is titled 'Student Engagement Calculator'. It is divided into four colored panels: 'Readings' (orange), 'Discussions' (light blue), 'Videos' (light green), and 'Quizzes' (light blue). Each panel contains input fields for various engagement metrics and a calculated score. In the 'Readings' panel, the 'Number of page views' field contains the text '423a', which is highlighted in red, and a red error message 'Invalid entry in the pageviews textbox.' is displayed below it. The other panels show valid numerical inputs and their respective scores. At the bottom center, a blue button labeled 'Calculate Engagement Scores' is visible, and a 'General engagement score : 64' is displayed above it.

Section	Metric	Value	Score
Readings	Number of page views	423a	-
	Number of highlights	32	-
	Number of unread pages	2	-
Discussions	Number of questions	2	-
	Number of comments	15	-
	Number of unread posts	1	-
Videos	Average minutes watched	150	-
	Number of play/pause	45	-
	Minutes skipped	5	-
Quizzes	# of failed questions	3	-
	Average quiz score	9.9	-
	Average # of attempts	3	-

General engagement score : 64

Calculate Engagement Scores

To complete this assignment, you will need to use nested if-else statements and TryParse method together (as explained with examples in the lecture guide).

Grading Schema

Task	Points
Computing the engagement scores	$0.04 \times 5 = 0.2$
Showing error messages	$0.15 \times 12 = 1.8$