CSC4130 Assignment 1

Start: Sep 29 at 10:00 PM

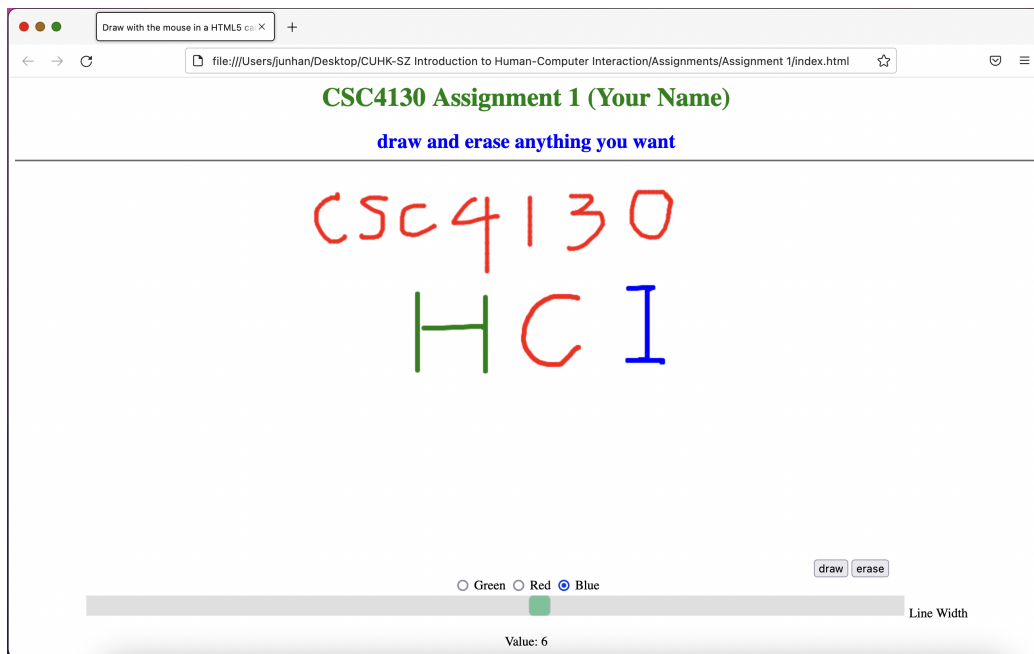**End: Oct 13 at 11:59 PM**

1 Description

Figure 1: An interface of assignment 1.

This assignment aims to help students get familiar with the basics of HTML, CSS, and JavaScript, especially on how to create interactive elements via HTML, implement interaction functions through JavaScript, and stylize the layout with CSS.

In this assignment, you are asked to design an interface that allows users to draw anything and erase what they have drawn through a mouse. Moreover, users can change line color and line width based on their preferences.

2 Requirement

- In the .html file, define a canvas with a width of 800 and a height of 500.

- In the .html file, define two buttons that can control drawing or erasing mode.

- In the .html file, define three options that can change the color of lines.

- In the .html file, define a range slider that can tune the value of line width.

- In the .js file, build one connection between startPainting and mouse up action and one connection between endPainting and muse down actions.

- Implement startPaintning and endPainting functions.

- Implement sketch function.

- Implement a function that can change the draw or erase mode when users click the corresponding button.

- Stylize the text and range slider in .css file.

3 Evaluation

In total, there are 100 points in this assignment. A detailed evaluation is provided here.

1) In the .html file, define a canvas with a width of 800 and a height of 500. (5pts).

- An implementation without error (5pts).

- An implementation without error, but setting with an inappropriate height or width (3pts).

- No implementation is provided (0pts).

2) In the .html file, define two buttons that can control drawing or erasing mode (6pts).

- Each button is for 2 pts and the corresponding label for the button is for 1 pts.

3) In the .html file, define three options that can change the color of lines (9pts).

- Each option is for 2 pts and the corresponding label for the option is for 1pts.

4) In the .html file, define a range slider that can tune the value of line width. (5pts)

- A range slider and the corresponding value are shown (5pts).

- Only range slider is shown (4pts)

- Only range slider value is shown (2pts)

- No implementation (0pts).

5) In the .js file, build one connection between startPainting and mouse up action and one connection between endPainting and muse down actions. respectively. (10pts)

- Each one is for 5pts.

6) Implement startPaintning and endPainting functions (20pts).

- Each function is for 10pts.

7) Implement sketch function (25pts).

- Refer to sketch function in index.js file.

8) Implement a function that can change the draw or erase mode when users click the corresponding button in HTML. (5pts)

- Implementation without errors (5pts).

- Implementation with errors (e.g., it cannot change the modes correctly) (2pts).

- No implementation (0pts).

9) Stylize the text and range slider in .css file (10pts).

- Stylize both text and range slider (10pts).

- Only stylize range slider (7pts).

- Only stylize text (3pts).

- No stylization (0pts).

10) Submission (5pts). Please compress your code and a readme file (optional) into a zip file and submit the zip file to OneDrive. The readme file can include descriptions that can help the instructor run the interface successfully.

Note that plenty of 10 pts will be given to those students who submit the assignment between Oct 14 at 12:00 AM and Oct 14 at 11:59 PM. Plenty of 20 pts will be given to those students who submit the assignment between Oct 15 at 12:00 AM and Oct 15 at 11:59 PM. Submissions after Oct 16 at 12:00 AM will not be graded.