

Objectives

- Practice searching, traversing, modifying, and styling the DOM using JavaScript.

Instructions

The provided file Lab04\_start.html is an HTML file that includes the definition of a simple HTML table with some basic CSS style definitions. The table contains a <table>, <thead>, <tbody> and <tfoot> section, where <thead> contains table headers, <tfoot> contains the table footer where column totals should be displayed, and <tbody> contains all rows with table data. The first column in the table contains row numbers and other annotation.

The <head> section of the HTML file includes a <script> tag with several function stubs to be completed. These are described as follows.

```
const addRow = function(v1, v2, v3)
```

- The addRow() function creates a new <tr> Element with four child <td> Elements. The first <td> is empty. The innerText of the remaining three <td> Elements is set to the three function parameters (v1, v2, v3). The new <tr> is then appended as the last child of <tbody>.

```
const deleteRow = function(nrow)
```

- The deleteRow() function deletes from <tbody> an entire <tr> element and all of its child Nodes. The nrow parameters indicates which <tr> to delete, where the first <tr> is at index 0.

```
const updateTotals = function()
```

- The updateTotals() function loops over the <tr> Elements in <tbody> and computes the sum of all values in each column. Assume all values are numeric and parse with the window.parseFloat() function. The sum of each column is set as the innerText of the corresponding <td> in the <tfoot>.

```
const reformat = function()
```

- The reformat() function loops over all <tr> elements in <tbody> and sets the innerText of the first <td> to a consecutive number. It also sets the background-color style of <tr> elements alternatively to “white” and “lightgray” forming a striping effect.

```
const highlight = function( fn )
```

- The highlight() function takes a function (fn) as its single parameter. The fn function takes the content of a <td> as a parameter and returns true when the <td> should be highlighted with a yellow background-color style. The highlight function loops over all <td> child Elements of <tbody>, excluding the first column, and highlights the <td> background-color style when appropriate.

Hints

- Refer to the final slide of Lecture for many helpful links to specific functions.
- Several example function calls are included in a <script> tag in <body>. These may be uncommented and used to invoke your completed functions.

Finishing Up

- You MUST enter header comments into your JavaScript file including (1) File name, (2) Your name, (3) Description and or purpose of the assignment
- You MUST comment your code, explaining what your code does in each section.
- Submit your single HTML file using Canvas under the appropriate assignment name.