This is an analysis of what the two files, index.html and minmax.js, are doing:

index.html: A basic webpage structure is set up, which includes the following components:

## 1. Document Type and Head Section:

- Document type is specified as HTML5.
- o In the <script> tag, the HTML file is linked to an external JavaScript file minmax.js.
- Character encoding is set as UTF-8 and the title of the webpage is "50.003 Jing Kai: Min and Max".

## 2. Body Section:

- An input field where users can enter text (<input id="textbox1" type="text" />).
- O Displays the minimum value (<span id="min"></span>) and the maximum value (<span id="max"></span>) based on the user input.
- Contains a button (<button id="button1" onclick="handleButton1Click()">Submit</button>)
  that, when clicked, triggers the handleButton1Click function defined in minmax.js.

**minmax.js:** Contains the logic to process the user input, calculate the minimum and maximum values, and update the webpage accordingly:

## 1. numbers(l) Function:

 Takes an array l of string elements, converts each element to an integer, and returns a new array "o" containing only the valid integers.

## 2. min\_max(a) Function:

- o Takes an array a of numbers.
- Sorts the array in ascending order.
- Sets the minimum (min) to the first element and the maximum (max) to the last element of the sorted array.
- o Returns an object containing the min and max values.

# 3. handleButton1Click() Function:

- Value is retrieved from the input field (textbox1).
- Splits the input string by commas to create an array of items.
- o Calls the numbers function to convert the array elements to integers.
- Calls the min\_max function to find the minimum and maximum values.
- Updates the inner HTML of the min and max span elements to display the calculated minimum and maximum values.

## 4. run() Function:

 Contains a commented-out placeholder to potentially add code that would run when the script is initialized. This function is not currently utilized in the provided script.

All in all, the **HTML file** provides the structure of the webpage, including an input field, two display spans for the results, and a button to trigger the calculation. On the other hand, **JavaScript file** handles the user input, processes the data to find the minimum and maximum values, and updates the webpage with these values when the button is clicked.

The workflow is as follows:

- 1. User enters a comma-separated list of numbers in the input field.
- 2. User clicks the "Submit" button.
- 3. The JavaScript function handleButton1Click processes the input, calculates the minimum and maximum values, and updates the webpage to display these values.