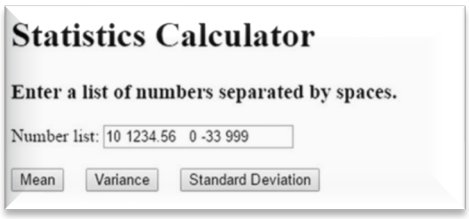
LAB FAT SET-2

Q1. Create a web page named **statistics.html**, along with an external JavaScript file named **statistics.js**, that allows the user to enter a list of numbers separated by one or more spaces. The page should compute the **mean**, **variance**, and **standard deviation** when the corresponding button is clicked.

Enhance the page by adding the following requirements:

- Validate that the input contains only numeric values (integers or decimals), ignoring extra spaces.
- If the user enters an empty list or invalid data, show a clear error message below the input field.
- Display the calculated result with an appropriate label and limit the output to a fixed number of decimal places.
- Format the page neatly with headings, input fields, and output sections similar to the layout shown.



Q2. Write a PHP function named **insideOut()** that accepts an array and returns a new array where the outermost elements have been swapped with the innermost elements. The function should perform this transformation **only if the array has an even number of elements**; otherwise, return the original array unchanged.

Enhance the function with the following requirements:

- The function must preserve the order of the remaining middle elements when performing the swap.
- If the array contains mixed data types (strings, integers, etc.), the function must still handle the swap properly.
- Include at least one example showing the transformation for numeric data and one for string data.

For example:

- `insideOut([1, 2, 2, 1])` should return `[2, 1, 1, 2]`.
- `insideOut(["Everyone", "says", "Kelly", "is", "REALLY", "awesome"])` should return `["Kelly", "says", "Everyone", "awesome", "REALLY", "is"]`.