Lab – 04: Practicing JavaScript

Objective:

- Learning the concept JavaScript.
- Practice adding external JavaScript to HTML.
- Practicing JavaScript functions, loops, constructs, arrays, and objects.

Submission:

- Submission of your work must be made to your GitHub repository.
- All your code must be in a zip file with name your name and roll number as follows, **"Name-Roll-No.zip"**
- Submit a notepad file with the link of your repository.
- **Emailed submissions will not be accepted.**
- **Any plagiarized code will NOT be marked.**

Task:

Create an HTML and a JavaScript file named as **"javaScript.html"** and **"javaScript.js"**. Write JavaScript functions to perform the following tasks given below. Write comments in your work else it will not be checked. Moreover, you are ONLY allowed to use **external** JavaScript file.

1. Write a JavaScript code that takes an array and returns the sum of the elements present in the array.
2. Write a JavaScript code that takes 2 numbers as inputs in the input field and computes basic arithmetic operations. Each arithmetic operation must have its own button and must display the result on the page.
3. Write a JavaScript code that takes an unsorted array and sorts it on a click of a button.
4. Create an HTML sign up form (the number of input fields should be at least 3), and perform form validation using JavaScript, where input fields should not be **empty**, password length should be a **minimum of 8 characters**:
   - If any field is empty, the background of the input field becomes "salmon" and border color becomes red.
   - An alert should pop up which states that the input field is empty, or the password length is less than 8 characters.
5. Create a tip calculator, which takes the total amount billed, a percentage of the quality (30% - Outstanding, 20% - Good, 15% - It was okay, 10% - Bad, 5% - Terrible) of service along with the number of people. The resulting tip should be the product of the total amount billed, and the percentage of quality, divided among the number of people.