

## 1) Project goal (one sentence)

A responsive web page where the user enters two numbers and sees the sum immediately (with validation, accessibility, and a little polish).

## 2) File / folder structure

add-two-numbers/

```
├─ index.html    ← main page (your current file)
├─ css/
|   └─ styles.css ← optional extra styles
├─ js/
|   └─ app.js     ← JavaScript (separate file for organization)
└─ README.md
```

## 3) Step-by-step tasks (in order)

### 1. Start with the HTML skeleton

- Use the bootstrap CDN (you already did).
- Add semantic structure: <main>, <form>, labels, ARIA attributes.

### 2. Create the UI

- Two number inputs, type="number", with <label> for each.
- An “Add” button and a “Clear” button.
- An area to show the result and inline validation messages.
- Keep everything inside a centered Bootstrap card/container.

### 3. Add JavaScript logic

- Read values from inputs, convert to numbers safely (parseFloat).
- Validate inputs: make sure they’re not empty and are valid numbers.
- Show friendly error text if invalid; otherwise show result.
- Support pressing Enter to submit.
- Implement Clear button to reset inputs and result.
- Prevent adding when inputs are invalid.

### 4. UX & accessibility improvements

- Use <label for="..."> and aria-live="polite" on the result so screen readers announce updates.
- Use inputmode and step on numeric inputs for mobile friendliness.

- Provide focus outlines and keyboard-accessible controls.

## 5. Polish

- Disable Add button while inputs invalid.
- Show a small animation or change color for result.
- Format large numbers (optional).
- Add tooltips or helper text.

## 6. Optional features / extensions

- Add other operations (subtract, multiply, divide).
- Keep a history list of the last N calculations (use localStorage).
- Add unit tests for the calculation function (Jest) if you want testing practice.
- Make a small React version as a follow-up project.
- Deploy to GitHub Pages.

## Explanation

- .container → centers everything.
- .form-control → styles input boxes.
- .btn and .btn-primary → styles button.
- id="num1", id="num2" → used to get values in JS.
- id="result" → where the sum will appear.

Summary of what you added

Step	What you added	Purpose
1	HTML file	Basic structure
2	Bootstrap CDN	Styling
3	Input boxes + button	User interface
4	JavaScript	Logic to add numbers
5	Result display	Output area