Project Documentation: BrainSpark AI Club Website

Prepared by: Guddad Rukmini
Date: 30-03-25

---

1. Project Overview

The **BrainSpark AI Club Website** was designed to showcase the club's mission, events, team, and projects in an engaging, responsive, and visually appealing way. The goal was to create a **modern, interactive, and accessible** website that reflects the club's innovative spirit.

---

2. Implementation Approach

A. Design & Structure

- **Color Scheme:** Used a **lilac and white theme** for a clean, professional look.
- **Layout:**
    - Single-page design with smooth scrolling sections (Home, Mission, Projects, Team, Events, Contact).
    - **Mobile-first approach** to ensure responsiveness.
- **Animations:** Added subtle animations (fade-ins, hover effects) for better engagement.

B. Key Features

Interactive Navigation – Smooth scroll-to-section with an animated header.
Dynamic Stats Counter – Animated numbers for impact.
Responsive Contact Form – With validation for user inputs.
Team & Project Showcase – Cards with hover effects.
Event Timeline – Visual representation of upcoming events.

3. Tools & Technologies Used

Frontend Development

- **HTML5** – Semantic structure for accessibility.
- **CSS3** – Flexbox, Grid, animations, and variables for maintainability.
- **JavaScript** – Dynamic counters, form handling, and smooth scrolling.

- **4. Challenges Faced & Solutions**

Challenge	Solution
Mobile responsiveness issues (elements overlapping on small screens)	Used **CSS Flexbox/Grid** and media queries to adjust layouts dynamically.
Animations causing performance lag	Optimized with will-change and reduced motion for accessibility.
Form submission handling	Implemented client-side validation before any data processing.
Cross-browser compatibility	Tested on Chrome, Firefox, and Edge; used vendor prefixes (-webkit-).

---

4. Tools & Technologies Used

Frontend Development

- **HTML5** – Semantic structure for accessibility.
- **CSS3** – Flexbox, Grid, animations, and variables for maintainability.
- **JavaScript** – Dynamic counters, form handling, and smooth scrolling.

---

5. Personal Takeaways

- **Learned:** Improved my skills in **CSS animations, responsive design, and form validation**.
- **Would Improve Next Time:**
    - Add a **dark mode toggle**.
    - Implement **real backend integration** for the contact form.

Attachments:

GitHub link : [Rukminiguddad/My-web-projects]

Live demo link : https://rukminiguddad.github.io/My-web-projects/