

AeroAspire-SDE Intern

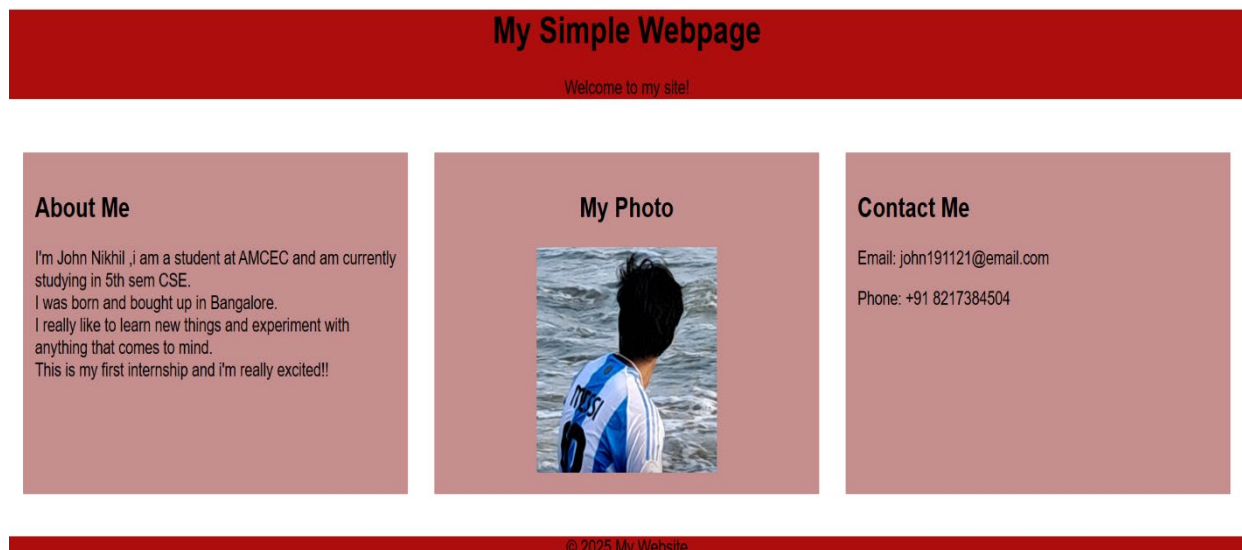
JOHN NIKHIL G

Week 1 – Day 2 (Sep23)

Task/Assignment :

Build basic HTML page: About / Photo / Contact sections, Style the sections; header/nav/footer; layout using Flexbox or Grid;

Flexbox Style



Layout :

- **Flexbox:**
 - Works in one dimension at a time either a row or a column.
 - Used for managing the layout of the website

- **Grid :**
 - Works in **two dimensions** — rows and columns simultaneously.
 - For creating complex layouts like entire web page

Questions/Reflection :

1. <div> vs <section>

- <div>: Generic container, no required attributes, used for styling or grouping.
 - <section>: Semantic container, represents a meaningful block (About, Services, etc.), supports global and event attributes.
-

2. Why semantics matter

- Adds meaning to code → easier for screen readers and search engines.
 - Improves accessibility → better for users with assistive tech.
 - Search engines understand content structure.
 - Cleaner code → easier for developers to maintain.
-

3. What is the flow from writing HTML → rendering by browser?

- Browser downloads HTML.
 - Builds DOM (structure).
 - Loads CSS → creates CSSOM (styles).
 - Combines DOM + CSSOM → render tree.
 - Calculates layout (sizes, positions).
 - Paints final output on screen.
-

4. How semantics help accessibility + SEO

- Clear structure for screen readers → smoother navigation.
 - Headings/sections/articles highlight importance.
 - Search engines index content more accurately.
 - Users + bots both understand the page better.
-

5. Browser parsing (HTML + CSS)

- HTML → DOM tree (structure).
- CSS → CSSOM tree (styles).
- Combine both → render tree.
- Compute layout → element sizes/positions.
- Paint → draw text, images, colors on screen.

6. Flexbox resizing behavior

- Auto-adjusts items when container changes size.
- Uses flex-grow, flex-shrink, flex-basis for scaling.
- Supports wrapping for smaller screens.
- Alignment (justify-content, align-items) keeps layout balanced.

7. CSS box model

- Content → main text/image area.
- Padding → space inside around content.
- Border → surrounds padding.
- Margin → space outside between elements.
- Total size = content + padding + border + margin.

8. CSS specificity order

1. Inline styles → highest priority.
 2. IDs → stronger than classes.
 3. Classes, attributes, pseudo-classes.
 4. Elements, pseudo-elements → lowest.
- If same weight → last rule in file applies.

9. Responsive layout approach

- Use relative units (% , em, rem, vw/vh).
- Make images/videos fluid (max-width: 100%).
- Apply media queries for different screen sizes.
- Mobile-first → scale up for larger screens.
- Flexbox/Grid → create adaptive layouts.