

Building UI Components with HTML & CSS Using a Structured Frontend Workflow

1. Goal of the Homework

The goal of this homework is to help you think and work like a frontend developer, not just write HTML and CSS.

By the end of this assignment, you should be able to:

- Break down a UI into clear, reusable components
- Analyze a layout before coding
- Plan structure and styles intentionally
- Translate a visual design into semantic HTML and clean CSS
- Iterate and improve your solution based on issues you discover

You will practice a professional frontend workflow while building four common UI components:

- Card
 - Sidebar
 - Form
 - Image Gallery
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2. Components You Will Build

You will build four separate components, each in its own section or file:

1. Card component
2. Sidebar component
3. Form component i
4. Image gallery component

Each component must be built using the workflow described below.

3. Required Workflow (Must Follow This Flow)

For each component, you must go through all six steps:

1 Analyzing the Component

Before writing code:

- Identify the main container
- Identify child elements (image, text, buttons, links, etc.)
- Decide what is content vs layout vs decoration

 Write short notes (bullet points) explaining your analysis.

2 Planning

Plan your solution:

- Decide which HTML elements to use (div, section, nav, form, input, etc.)
- Decide how elements will be grouped
- Think about layout (flexbox, grid, or normal flow)

 Write a simple plan in text.

3 Wireframing

Create a simple wireframe:

- Can be hand-drawn (photo)
- Or digital (boxes and labels only)
- No colors, no styling details

 The wireframe should match the layout picture structure.

4 Chunking

Break the component into chunks:

- Parent container
- Sub-sections

- Reusable blocks (items, rows, cards, etc.)

 **List the chunks clearly.**

5] Prompting (Code Writing)

Now write the code:

- Semantic HTML
- Clean, readable CSS
- Proper class names
- Layout must visually match the provided layout picture

 You may use any images you want

6] Iterating

After finishing:

- Check spacing, alignment, consistency
- Improve class names if needed
- Fix layout issues
- Refactor CSS if it feels messy

 Write 2–3 sentences explaining what you improved.

4. Requirements (Very Important)

- Use the starter code
- You need only to fill 1 HTML and 1 CSS file
- No JavaScript
- Document the workflow for each component
- Layout must visually match the provided layout picture
- Images can be different, but:
 - Same size
 - Same placement
 - Same structure

5. What You Need to Submit

You must submit:

1. HTML file
2. CSS file
3. Wireframes (images or PDF)
4. A short document (or README) that includes:
 - Analysis notes for each component
 - Planning notes
 - Chunking breakdown
 - Iteration notes (what you improved)

For all of the 4 components

 You may submit everything as:

- A GitHub repository link

 Remember:

This homework is not about speed. It's about thinking before coding and learning how real frontend developers approach UI problems.
