Prosensia Internship Report

Week: 3

Day: 3

Date: 9 July 2025

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Internship: Frontend Development at Prosensia

Topic: CSS Transitions and Animations

Overview:

On the third day of Week 3, I delved into one of the most exciting parts of modern web design — CSS transitions and animations. These techniques allow developers to create smooth, engaging user experiences by animating changes in elements' styles, such as colors, positions, and sizes. Instead of making abrupt changes, transitions and animations guide the user's eye and provide feedback, making interfaces feel more intuitive and interactive.

Key Learnings:

- Understanding how the transition property works in CSS, allowing style changes to occur over a specified duration instead of instantly.
- Learning to break down the transition into its components such as:
  - transition-property: which CSS property to animate
  - transition-duration: how long the transition lasts
  - transition-timing-function: the acceleration curve of the transition
  - transition-delay: delay before the transition starts
- Exploring the use of @keyframes to define complex animations where multiple stages or steps are required.
- Differentiating between transitions and animations:
  - Transitions require a triggering event like :hover.
  - Animations can run automatically or repeatedly without user interaction.
- Using animation properties such as:
  - animation-name
  - animation-duration
  - animation-delay
  - animation-iteration-count
  - animation-direction
  - animation-fill-mode
  - animation-timing-function

Practical Work and Implementation:

- Created smooth hover effects on buttons that change color and scale up when the user interacts with them.
- Designed an image gallery where hovering over images reveals captions using fade-in effects.
- Developed a loading spinner animation using @keyframes with infinite looping, commonly used for preloader components.
- Experimented with various easing functions such as ease, ease-in, ease-out, ease-in-out, and custom cubic-bezier() functions to control the flow of animation.
- Built a basic animated card component where text slides in from the bottom and fades in as the card appears.

Challenges and Observations:

Initially, I faced difficulty understanding how the animation timing functions influenced the smoothness and feel of the animation. However, after experimenting with different settings and values, I gained a better intuition for how to apply them effectively in real designs. I also learned the importance of not overusing animations, as too many can distract users and negatively impact performance.

Conclusion:

Learning CSS transitions and animations significantly enhanced my ability to create visually engaging and interactive web pages. These tools are essential for modern frontend development, especially when aiming to deliver professional and polished user experiences. I am now more confident in using animations thoughtfully to guide users and improve usability.
