Portfolio Website Project Journal

Video Presentation: : https://youtu.be/QWPJBTWSATw
Deployed Site: https://nthcasper.github.io
GitHub Repository: https://github.com/nthcasper/nthcasper.github.io

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Introduction

This journal outlines my development process for my personal portfolio website. I have documented each session, including the features I built, challenges I faced, and solutions I implemented. The purpose of this project was to create a professional website that showcases my skills, experience, and projects using **HTML, CSS, JavaScript, and Bootstrap**.

Each commit represents a meaningful step in the development of the site. I also included interactive features such as **form validation with user-friendly feedback** and **ASCII cloud animation**. This journal serves as a guide for how the project was built and includes all external resources used.

Session Breakdown

Session 1: Initial Setup

Commit: *Initial commit: Set up basic HTML skeleton for portfolio website.*

- Created a basic index.html file with a structured layout including a header, main content area, and footer.
- Ensured that the document was **semantic and accessible** for easy future modifications.

Challenges:

- None significant, but I made sure to structure the file clearly for later expansions.

Session 2: Base Styling & Documentation

Commit: *Add initial CSS styling and README documentation for project setup.*

- Added a styles.css file to define **global styles** such as typography, colors, and layout.

- Created a README.md file with **instructions on how to run the project** locally and deploy it using GitHub Pages.

Challenges:

- Ensuring a **consistent design** while keeping the CSS simple and reusable.

Session 3: Expanding HTML Content

Commit: *Add portfolio sections: Navbar, Hero, About, Experience, Projects, Skills, and Contact.*

- Expanded the **HTML structure** to include key sections:
    - **Navigation Bar** – for smooth navigation between sections.
    - **Hero Section** – to introduce the site with an engaging title.
    - **About Section** – to introduce myself with a short biography.
    - **Experience & Projects** – showcasing my past work.
    - **Skills & Tools** – listing technologies I am proficient in.
    - **Contact Section** – with a contact form for visitors.

Challenges:

- **Deciding on a logical flow** for the content and ensuring a clean, user-friendly layout.
- Used **wireframing techniques** to plan the layout before coding.

Session 4: Adding JavaScript Interactivity

Commit: *Implement interactive features: smooth scrolling, form validation, and ASCII cloud animation.*

This was one of the most complex stages, as I added JavaScript functionality for **form validation** and an **animated ASCII cloud effect**.

Form Validation with User-Friendly Feedback

- The form validation script ensures that **users fill in all fields correctly** before submission.
- Implemented an event listener on form submission to check:
    - If the name field is **empty**.
    - If the email field contains a **valid email format**.
    - If the message field is **filled out**.
- If there are errors, they are **displayed dynamically** in red text below the respective input field.

- Added a **personalized success message** that greets the user by name when they submit the form.

Challenges:

- Initially, **error messages would stack on top of each other** when the form was submitted multiple times.
- I solved this by **removing old error messages** before displaying new ones.
- **Tested multiple times** to fine-tune message display and form reset behavior.

ASCII Cloud Animation & Cloud Container

- Implemented an **ASCII-based cloud animation** in the **hero section** for a unique design element.
- The animation works by:
    - Creating **clouds dynamically** using JavaScript at random positions.
    - Making them **scroll across the screen** using CSS animations.
    - Removing them after they leave the screen to prevent clutter.
- The cloud container was set with position: absolute; overflow: hidden; pointer-events: none; to ensure that it did not interfere with user interactions.

Challenges:

- Getting the clouds to **move at a natural speed** without disrupting the UI.
- **Experimented with different values** for animation duration and timing using Math.random().
- Ensured the effect **did not affect page performance** by controlling how frequently new clouds spawn.

Session 5: CSS Refinements

Commit: *Refactor CSS: improve responsiveness, add CSS variables, and integrate animations for clouds and section transitions.*

- **Refactored CSS** to use **variables** for a **consistent theme** across the site.
- Improved **responsiveness** using **flexbox and media queries** so the layout adapts well on different screen sizes.
- Added **subtle animations**:
    - **Fade-in effects** for content sections.
    - **Hover effects** for clickable elements.

Challenges:

- Ensuring **text remained readable** across various screen sizes.
- Adjusting **font sizes and spacing** dynamically based on screen width.

Session 6: Final Touches & Deployment

Commit: *Final commit: Polish UI details, update README with deployment instructions, and cleanup code.*

- **Finalized UI elements** to ensure a **polished and professional look**.
- Updated README.md with **detailed deployment instructions** for GitHub Pages.
- **Tested the site on different devices** to ensure compatibility.
- Cleaned up **unnecessary console logs** and removed any redundant code.

Challenges:

- Making last-minute **adjustments based on feedback**.
- Ensuring all content was **properly linked and styled**.

External Resources & Tutorials

During this project, I referred to the following resources:

- **MDN Web Docs:** https://developer.mozilla.org/ – HTML, CSS, and JavaScript documentation.
- **Bootstrap Documentation:** https://getbootstrap.com/docs/5.3/getting-started/introduction/ – Used for layout and responsive design.
- **CSS-Tricks (Smooth Scrolling Tutorial):** https://css-tricks.com/snippets/jquery/smooth-scrolling/ – Helped with implementing smooth scrolling behavior.

Conclusion

This journal documents the complete development of my portfolio website, highlighting the **thought process, challenges, and solutions** I implemented.

Key takeaways from this project:

- I gained hands-on experience with **form validation, animations, and responsive design**.
- Experimenting with **ASCII cloud animation** helped me understand **CSS animations and JavaScript event timing**.
- Debugging form validation issues **taught me how to improve user feedback and prevent UI clutter**.