Lappeenrannan teknillinen yliopisto

School of Mechanical Engineering

Software Development Skills Front-End, Online course

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LEARNING DIARY, SOFTWARE DEVELOPMENT SKILLS: FRONT-END 2025-26

LEARNING DIARY

I have always been fascinated by programming. Having completed Python and C programming courses with full marks, I wanted to expand my skills into web development. During an elective on web programming, I discovered front-end development and became particularly interested in HTML, CSS, and JavaScript. This motivated me to join this course and explore building real websites from scratch.

9 September – Introduction and Base HTML& Navbar and Hero Section

I set up my coding environment in VS Code and installed Live Server for instant previews. I created my first HTML file and learned the basics of HTML structure. For example, declaring HTML5 and setting up responsive layouts:

```
<!DOCTYPE html>
<html lang="en">
<meta charset="UTF-8" />
<meta name="viewport" content="width=device-width, initial-scale=1.0" />
```

I also linked Google Fonts and Font Awesome icons for typography and interactive elements:

```
<link
href="https://fonts.googleapis.com/css2?family=Poppins:wght@300;400;600;700&display
=swap" rel="stylesheet" />
<link          rel="stylesheet"          href="https://cdnjs.cloudflare.com/ajax/libs/font-
awesome/6.4.2/css/all.min.css" />
```

Connecting my own style.css reinforced the separation of structure (HTML) and presentation (CSS).

I created a responsive navigation bar with desktop and mobile versions. Adding a hamburger menu taught me to handle mobile layouts:

```
<button class="hamburger-button">
  <div class="hamburger-line"></div>
  <div class="hamburger-line"></div>
```

```html
    <div class="hamburger-line"></div>
</button>
```

The hero section included a headline and buttons using utility classes:

```html
<h1 class="hero-heading text-xxl">A powerful solution to grow your startup. Fast!</h1>
<a href="#" class="btn btn-primary">Get Started</a>
<a href="#" class="btn"><i class="fas fa-laptop"></i> Book a Demo</a>
```

I learned to structure HTML for visual hierarchy and maintain consistent styling with CSS classes.

10 September – Video Section and Testimonials & Pricing Cards and CSS Grid Practice

I added a video preview section and a testimonial grid using CSS Grid:

```css
.testimonials-grid {
  display: grid;
  grid-template-columns: repeat(3, 1fr);
  gap: 30px;
}
```

Each testimonial was a card with proper typography and spacing. This day strengthened my understanding of semantic HTML and responsive grid layouts.

I created pricing cards with "Simple" and "Premium" plans using CSS Grid. Font Awesome icons highlighted features, and utility classes styled buttons uniformly:

```html
<a href="#" class="btn btn-primary btn-block">Get Started</a>
```

I learned how CSS Grid simplifies alignment and layout across different screen sizes.

11 September – FAQ Section and Accordion & Mobile Menu and Responsiveness

I implemented a collapsible FAQ section using JavaScript:

```javascript
faqContainer.addEventListener('click', (e) => {
  const groupHeader = e.target.closest('.faq-group-header');
  const groupBody = groupHeader.nextElementSibling;
  groupBody.classList.toggle('open');
});
```

I learned DOM manipulation, event delegation, and toggling classes for interactive UI. I also added a footer with newsletter signup and social icons.

I adjusted layouts for tablet and mobile screens using media queries:

```
@media (max-width: 670px) {
  .hero .hero-content, .hero .hero-text {
   width: 100%;
   text-align: center;
  }
```

I tested the mobile hamburger menu and ensured text and buttons scaled appropriately. This reinforced the importance of responsive design.

12 September – Deployment with GitHub Pages

I deployed the website on GitHub Pages, learning how to commit, push, and configure the live site. Correct file paths were critical for images and CSS. Seeing the website live was very rewarding and validated all my hard work.

13 September -- 26 September – Starting think about my project topic.

Reasons for Choosing This Project Topic

As someone who maintains a consistent fitness routine, I have extensive experience using various fitness websites and mobile applications. Through regular interaction with these platforms, I've developed a keen understanding of what makes a fitness website effective and engaging. I noticed that successful fitness websites share common strengths such as intuitive navigation, motivational design elements, and clear presentation of services. This personal experience inspired me to create a website that combines the best features I've encountered while addressing the shortcomings I've observed.

My primary goal is to develop a comprehensive fitness website that serves as an ideal destination for fitness enthusiasts at all levels. I aim to create a platform that not only showcases services effectively but also inspires visitors to begin their fitness journey. The website should demonstrate modern web development practices while maintaining practicality and usability. I envision a space where potential members can easily find information about classes, trainers, and membership options without the frustration often

associated with poorly designed fitness websites. The project will emphasize clean design, fast loading times, and seamless user experience across all devices.

The initial phase involved thorough planning and conceptualization. I began by analyzing the target audience, identifying three main user groups: fitness beginners seeking guidance, regular enthusiasts looking for new challenges, and professional athletes requiring specialized training options. This analysis helped shape the website's content structure and feature priorities. I then created detailed wireframes and mockups, focusing on creating an intuitive user journey from landing page to membership conversion. The design process emphasized visual hierarchy, with careful attention to color psychology and typography to create an energetic yet trustworthy atmosphere.

During the development phase, I focused on building a robust technical foundation using modern web technologies. The HTML structure was crafted with semantic elements to ensure accessibility and SEO optimization. For layout and styling, I implemented a combination of CSS Grid and Flexbox to create responsive designs that adapt seamlessly to different screen sizes. The JavaScript components were developed to enhance user interaction without compromising performance. Particular attention was paid to creating smooth animations and transitions that contribute to the overall user experience while maintaining fast loading times.

The final phase involved populating the website with meaningful content and refining the user experience. I carefully curated class descriptions, trainer profiles, and membership details to provide comprehensive information while maintaining readability. Each section was optimized for both human readers and search engines. The contact forms and interactive elements were thoroughly tested to ensure they function correctly across different browsers and devices. User feedback mechanisms were implemented to gather insights for future improvements, completing the cycle of continuous enhancement that characterizes successful web projects.

Thank you for course content and your reading.

27/9/2025

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