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**Project Report: Busan Coffee Guide Website**

**1. Project Overview**

**Project Title:**  
Busan Coffee Guide

**Purpose:**  
To create a responsive, visually appealing website that highlights top coffee shops in Busan, South Korea. The site provides information, images, ratings, and booking functionality for featured cafés, and includes features such as a dark mode theme and an interactive image carousel.

**2. Software tools and technologies used**

* **Frontend:**
  + **HTML5** – for structure and content
  + **CSS3** - for styling and responsive design
  + **JavaScript -** for interactivity, dynamic content, and carousel functionality
* **Development Environment:**
  + **Visual Studio Code**
  + **Git** – for version control
* **Design Tools:**
  + **Custom fonts** (e.g., "Codystar-Light" using ImperialScript-Regular.ttf)
  + **CSS custom variables -** for theme management and dark mode
* **Hosting/Deployment:**
  + **GitHub** (for code hosting and README documentation)
  + **Static site hosting** (not specified, but compatible with GitHub Pages or similar)

**3. APIs and External Services**

* **No external APIs** were used for dynamic data fetching or mapping.
* **Google Maps embedding** or **Naver Map links** could be used for location information, but currently, the site uses static map links (e.g., Naver Map URLs for each café).
* **LocalStorage API** was used for persisting dark mode preferences across sessions.

**4. What Was Tried**

**4.1. Website Structure and Content**

* **Homepage:**
  + Features a welcoming message and highlights the purpose of the site.
* **Café Detail Pages:**
  + Dynamically generated based on URL parameters.
  + Display café name, rating, images, and booking form.
  + Include a carousel for multiple café images.

**4.2. Styling and Themes**

* **Custom Fonts:**
  + Implemented "Codystar-Light" using a custom TTF file for a unique typographic style.
* **CSS Variables:**
  + Used for easy theme switching and consistent styling.
* **Dark Mode:**
  + Implemented a toggle button that switches between light and dark themes.
  + Preferences are saved using LocalStorage for a seamless user experience.

**4.3. Interactivity and User Experience**

* **Image Carousel:**
  + JavaScript-driven carousel for displaying multiple images of each café.
  + Automatic slideshow and manual navigation buttons.
* **Booking Form:**
  + Simple form for café reservations.

**4.4. Footer and additional features**

* **Footer:**
  + Includes social media links, contact information, and decorative images.
  + Uses custom fonts and hover effects for links.
* **Theme Switch:**
  + Positioned as a floating button for easy access.

**5. What succeeded**

* **Dynamic Café Pages:**
  + Successfully implemented dynamic content loading based on URL parameters, allowing for easy expansion of café listings.
* **Dark Mode:**
  + Smooth theme switching with persistent user preferences via LocalStorage.
* **Image carousel:**
  + Functional and visually appealing carousel for showcasing café images.
* **Responsive Design:**
  + The site is visually consistent and usable across different devices.
* **Custom Typography:**
  + Unique and consistent font usage throughout the site.
* **Booking Form:**
  + Simple, styled form for user interaction and fully functional (forms are successfully delivered).

**6. What failed and needs improvement**

* **Limited Dynamic Data:**
  + Café information is hardcoded in JavaScript, and only data for two cafés was included due to the time-consuming nature of collecting and formatting extensive datasets. This restricts the site's scalability and makes adding new cafés a manual, error-prone process.  
    **Improvement:** Use a content management system (CMS) or external API for easier and more scalable content management.
* **Testing scope:**
  + Limited to manual testing; no automated tests were implemented.
  + **Improvement:** Add unit or integration tests for critical features.
* **Not Cross-Platform:**
* The project is developed as a web application and does not support cross-platform deployment as a native or hybrid mobile app. This means it cannot be distributed via app stores or provide a fully integrated mobile experience.
* **Improvement:** Consider using cross-platform frameworks (such as Flutter, React Native, or Kotlin Multiplatform) to enable deployment on multiple platforms.

**7. Lessons learned**

* **ThemeManagement:**
  + Using CSS variables and LocalStorage for themes switching is efficient and user-friendly.
* **Dynamic Content:**
  + URL parameters and JavaScript objects are a simple way to manage dynamic content without a backend.
* **Responsive Design:**
  + CSS Grid and Flexbox are powerful tools for creating adaptable layouts.
* **User Experience:**
  + Features like dark mode and image carousels significantly enhance user engagement.

**8. Conclusion**

The Busan Coffee Guide project successfully delivers a visually appealing, responsive website that shows local cafés and provides pleasant user experience. Key features include dynamic café pages, a dark mode toggle, and an interactive image carousel. Future improvements could focus on backend integration, dynamic data management, and enhanced accessibility.

**9. Appendix: Key Code Examples**

**Dark Mode Toggle (JavaScript):**

Изображение выглядит как текст, снимок экрана, Шрифт

Содержимое, созданное искусственным интеллектом, может быть неверным.

**Dynamic Cafe Page (JavaScript):**

Изображение выглядит как текст, снимок экрана, Шрифт

Содержимое, созданное искусственным интеллектом, может быть неверным.