Final Project Report

# “Universities in Korea” – Responsive University Directory Website

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## 1. Project Overview

This project is a fully functional, responsive university directory website titled “Universities in Korea”. It serves as a platform for users to explore major universities across South Korea, filter by region and type, and view detailed information for each institution. The site includes user authentication, mobile responsiveness, dark mode, and a clean UI — all implemented using only HTML, CSS, and JavaScript.

## 2. Key Features

* Homepage

- Slideshow : Displays rotating university-themed images.

- Responsive Navigation Bar: Includes Home, Login, Sign Up, and a Dark Mode toggle.

- Dark Mode Support: Theme preference is saved in localStorage and applied across sessions.

- Hamburger Menu: Automatically activated on smaller screen widths for mobile navigation.

* Search & Filter

- Region Selector: Filter universities by specific cities (e.g., Seoul, Jeju, Busan).

- Type Selector: Filter by institution type (e.g., National, Private, Specialized).

- Real-Time Search: Instantly find universities by name.

* University Detail Page

- Dynamically Generated Content: Loads based on the university selected from the homepage.

- Map Embeds & Contact Info: Displays detailed address, phone, email, and website.

- Minimal Top Bar: Includes a Home link for easy navigation back to the main page.

* User Authentication

- Sign Up Page: Stores new users using localStorage.

- Login Page: Authenticates based on stored data and shows personalized content.

- Session-Aware Navbar: Login/Sign Up buttons are hidden once logged in; Logout becomes visible.

## 3. Technical Implementation

Languages Used: HTML5, CSS3, JavaScript (ES6)

Hosting Platform: GitHub Pages (Live Demo: <https://jasminttt03.github.io/universityproject/>)  
Storage: localStorage used for theme preference and user data  
Responsiveness: Implemented using CSS media queries  
Mobile-Friendly Design: Hamburger navigation and flexible layout

## 4. Challenges Faced

- Dark Mode Synchronization: Ensuring consistent theme across pages using localStorage.  
- Hamburger Menu Behavior: Handling dynamic visibility, auto-close, and interaction conflicts.  
- JavaScript Execution Timing: Preventing bugs due to scripts running before the DOM was ready.  
- Live Deployment Issues: Addressing path case-sensitivity and resource loading problems on GitHub Pages.

## 5. Key Learnings

- DOM manipulation and dynamic UI updates using vanilla JavaScript.  
- Managing application state across pages (theme, login status).  
- Responsive web design and mobile-first development techniques.  
- Real-world debugging of browser-based deployment issues.

## 6. Files and Structure

/  
├── univers1.html ← Homepage  
├── univers1.css ← Main styles  
├── univers1.js ← Main interactivity  
├── university.html ← University detail page  
├── login.html ← Login form  
├── signup.html ← Signup form  
├── data.js ← JSON-style university data  
├── images/ ← Slideshow and logos  
└── README.md ← Project overview and instructions

## 7. Conclusion

The “Universities in Korea” project demonstrates a practical application of front-end development tools to create an accessible, responsive, and interactive web application. It simulates a real-world platform for educational research and provides a seamless user experience across devices. The project was a valuable learning experience in UI design, JavaScript functionality, and responsive web practices.