News Feed Application

Addressing the Need for Simplicity

Many students and general users desire a straightforward news feed application. Current solutions often burden users with:

Excessive Complexity

Existing apps are frequently over-engineered, leading to confusing interfaces and unnecessary features.

Demanding Setup

Most news feed applications require intricate backend configurations, making them difficult for individual users or small projects.

Our objective is to develop a lightweight, frontend-focused news feed app leveraging local storage for ease of use and accessibility.

Who Benefits? Our Key Stakeholders

Students

Seamlessly post updates, share project progress, and interact within a familiar social feed format.

General Users

Engage with content through likes and comments, fostering a sense of community without complex setup.

Teachers

Efficiently share announcements, distribute course materials, and engage with students in a centralized feed.

Project Evaluators

Assess the application's core design, functionality, and adherence to specified requirements.

Minimum Viable Product: Core Functionality

Our prototype prioritizes essential features to deliver a functional and engaging user experience:

Post Creation

Users can easily create and publish new text-based posts to the feed.

Feed Display

All posts are dynamically displayed in a continuous, chronological news feed.

Interaction

Users can like and comment on individual posts, fostering basic engagement.

Data Persistence

All user-generated content and interactions are saved locally using localStorage, ensuring data remains even after browser refresh.

Intuitive UI

A clean, simple, and responsive user interface designed for ease of navigation across devices.

Logic Layer

Component Diagram: Breaking Down the Prototype

This diagram illustrates the modular structure of our news feed prototype, showcasing the interaction between different components to manage user input, display posts, and handle data storage. The clear separation of concerns ensures maintainability and scalability for future enhancements.
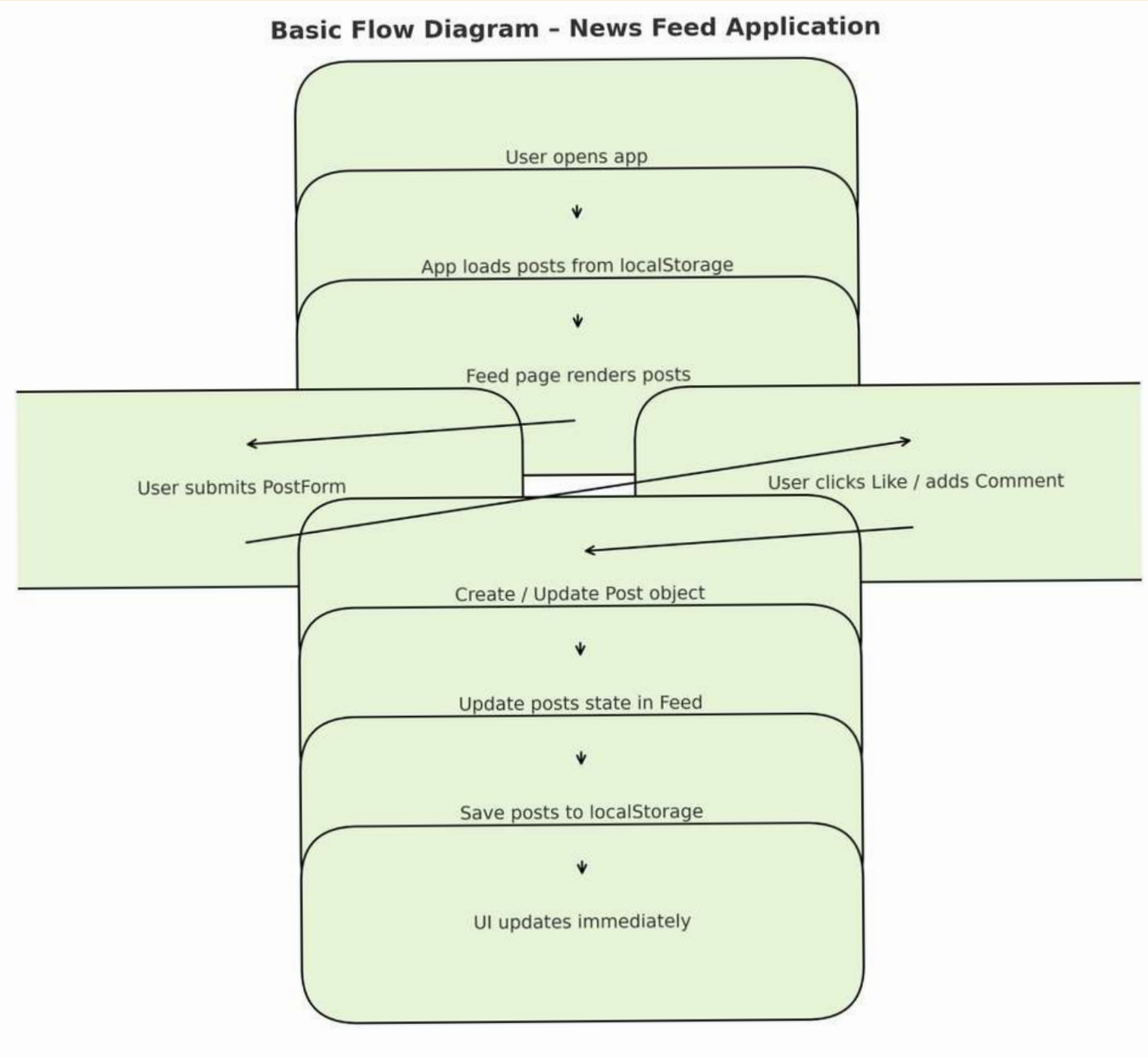
UI Wireframes / Mockups

News Feed - Wireframe

Create Post Box

Post 1: Text + Like/Comment buttons

Post 2: Text + Like/Comment buttons

Navigation Bar (Home, Profile, Settings)

User Journey: Basic Flow Diagram

The flow diagram outlines the straightforward process a user follows to interact with the application. From creating a post to seeing it appear in the feed and engaging with other content, each step is designed for intuitiveness and efficiency.

Basic Flow Diagram – News Feed Application

User opens app

App loads posts from localStorage

Feed page renders posts

User submits PostForm   User clicks Like / adds Comment

Create / Update Post object

Update posts state in Feed

Save posts to localStorage

UI updates immediately

Measuring Success: Acceptance Criteria

Our prototype will be evaluated based on the following key criteria, ensuring it meets user expectations and project goals:

→ **Instant Feed Update**

When a user adds a new post, it must appear immediately in the news feed without any delay.

→ **Persistent Data**

All posts, likes, and comments must persist even after the browser is refreshed or closed and reopened.

→ **Accurate Interaction Updates**

Likes and comments should update correctly and reflect in real-time, providing immediate feedback to the user.

→ **Responsive & Simple UI**

The user interface should be intuitive, easy to navigate, and adapt seamlessly across various screen sizes (desktop, tablet, mobile).

Under the Hood: Technology Stack

Frontend Foundation

- **HTML:** Structure of the web pages.

- **CSS:** Styling and visual presentation.

- **JavaScript:** Core logic and dynamic interactions.

Data Storage

- **LocalStorage:** Client-side data persistence without a database.
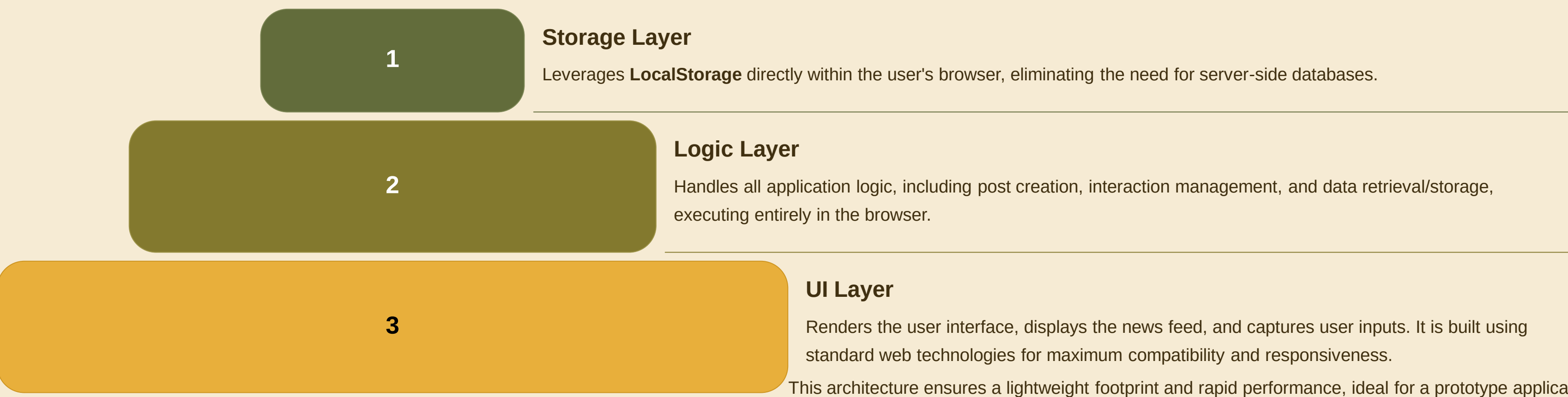
Frameworks & Tools

- **Bootstrap:** Responsive UI components and styling acceleration.

- **VS Code:** Integrated development environment for coding.

- **Git:** Version control for collaborative development.

Architectural Overview: Client-Side Excellence

Our News Feed Application is designed as a purely client-side solution, simplifying deployment and reducing dependencies:

1

Storage Layer

Leverages **LocalStorage** directly within the user's browser, eliminating the need for server-side databases.

2

Logic Layer

Handles all application logic, including post creation, interaction management, and data retrieval/storage, executing entirely in the browser.

3

UI Layer

Renders the user interface, displays the news feed, and captures user inputs. It is built using standard web technologies for maximum compatibility and responsiveness.

This architecture ensures a lightweight footprint and rapid performance, ideal for a prototype application.

Interface Glimpse: Wireframes & Mockups

These mockups provide a visual representation of our prototype's intended user interface. They illustrate the clean layout, intuitive navigation, and responsive design aimed at providing a seamless news feed experience.