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TITLE OF THE PROJECT

“NEWS APP”

ABOUT ORGANIZATION



SKDeft Technologies is a leading IT company which deals in complete web solutions, mobile application development, digital marketing, and IT security services. SKDeft Technologies is a full-service supplier for companies or individuals.

OUR MISSION

To exceed our customers' expectations with our innovative and professional ideas. We keep in mind all your expectations to provide the best services to be the world's most trusted partner for quality assurance at an affordable price.

WHAT WE DO

We always do the right thing with technicalities, pace, and passion. We create sustainable growth. Our quality-centered work culture focuses on client success through customized approaches and best practices to meet their demands. Our strong domain experience makes us an ideal partner for your IT outsourcing needs.

Director of SKDEFT Technologies – “Surrender Dabur”

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Introduction

The News App is a dynamic and responsive web application that provides users with the latest news articles from various categories. Utilizing HTML, CSS, and JavaScript, along with integration of the News API, the project enables users to explore news related to finance, sports, crypto, international affairs, technical topics, AI, and education. The interface is designed to be intuitive, offering a navigation bar for selecting news categories, a search bar for customized queries, and a visually appealing card-based layout to present news articles.

In the ever-evolving landscape of web development, the News App stands as a testament to the fusion of creativity and technological innovation. Crafted with HTML, CSS, and JavaScript, this project presents a dynamic platform that brings the latest news articles from around the world to users' fingertips. The seamless integration of the News API amplifies the application's capabilities, offering a diverse array of news categories, including finance, sports, crypto, international affairs, technical developments, AI, and education. Through its modular design, purposeful functions, and seamless integration of APIs, this

project represents a harmonious blend of design aesthetics and technological prowess, catering to the ever-growing demand for dynamic and user-centric web applications.

Objective of the Project

The objective of the News App is to deliver a dynamic and user-friendly web platform that provides users with up-to-date news articles across diverse categories. By leveraging HTML, CSS, JavaScript, and the News API, the project aims to create an engaging interface that allows users to explore news topics like finance, sports, crypto, international affairs, technical advancements, AI, and education. This project is designed to offer a seamless, interactive experience, combining aesthetic design with technical functionality to meet the growing demand for accessible and customizable news content online.

Input and Output of the Project

1. Input

The primary input for the News App comes from user interactions and the News API:

- **User Inputs:** Users can select news categories through the navigation bar, enter keywords in the search bar for customized queries, and click on various buttons to view articles in specific categories.
- **API Requests:** The News App sends requests to the News API using an API key and query parameters based on user selections, fetching relevant news articles based on chosen categories or search keywords.

2. Output

The output of the News App is a visually organized display of news articles in a responsive format:

- **News Cards:** The app dynamically generates news cards, each displaying an image, title, source, and brief description of the article. The cards are arranged in a user-friendly, card-based layout.
- **Category-Based Filtering:** The app displays only the articles related to the selected category or search term, providing a streamlined and personalized news browsing experience.

Software Module

The News App is structured around several key software modules that enable its dynamic functionality and user-friendly interface:

1. UI Module

This module is responsible for rendering the visual elements of the application. It includes the navigation bar for category selection, the search bar for customized news queries, and the card-based layout for displaying news articles. HTML and CSS are used to design these components, ensuring that the interface is responsive and aesthetically pleasing.

2. API Integration Module

This module manages communication with the News API. It uses JavaScript functions to send requests, receive news data, and filter it based on the user's selected category or search term. It handles API key authentication and processes JSON responses from the API, ensuring that relevant data is available for display.

3. Data Binding and Rendering Module

This module binds the fetched news data to the app's visual components. Functions like

`bindData` and `fillDataInCard` dynamically populate the news cards with images, titles, sources, and descriptions from the API data. It ensures that the content remains updated and aligned with user interactions.

4. **Event Handling Module**

This module captures user interactions, such as clicking on a category or submitting a search query. It triggers functions like `fetchNews`, `onNavItemClick`, and the search functionality to update the displayed news. This module enhances interactivity, making the application responsive to user actions.

System Resource Requirement

1. Hardware Resource Requirement

Component :	Requirement
Hard Drive :	2 GB or above
Processor :	Intel Core i5 or above
RAM :	2 GB or above
Processor Speed	: 2.30 GHz

2. Software Resource Requirement

Requirement Specification
Type :

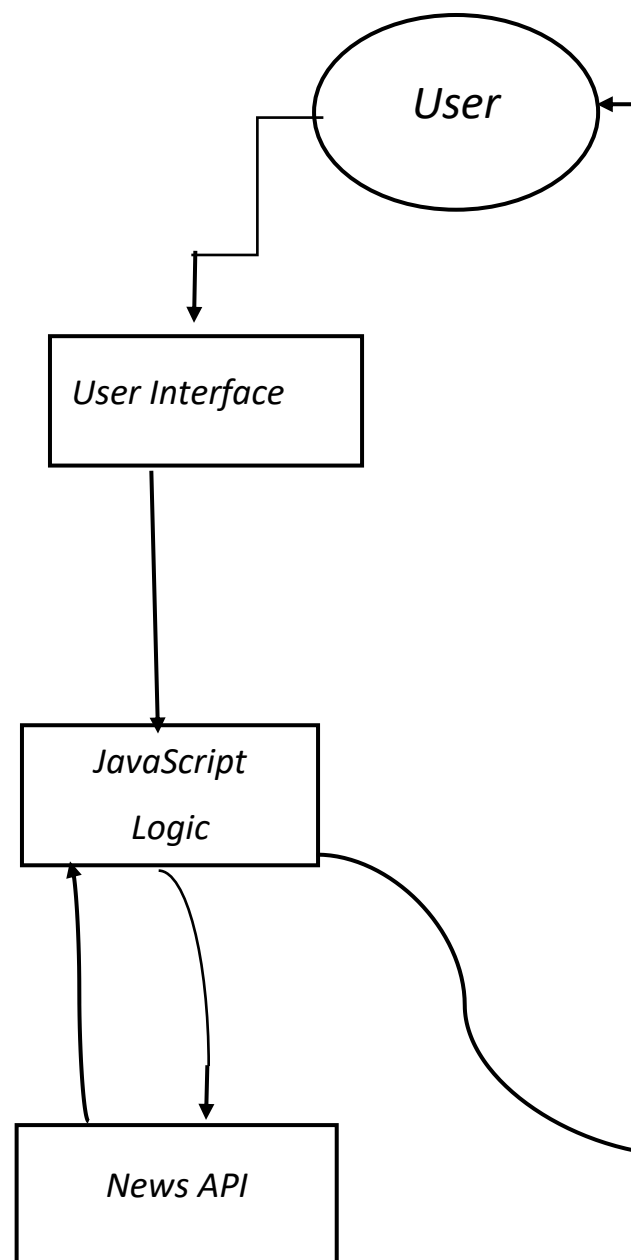
Operating System : Windows 7 or above

Frontend Technologies : HTML, CSS, JavaScript

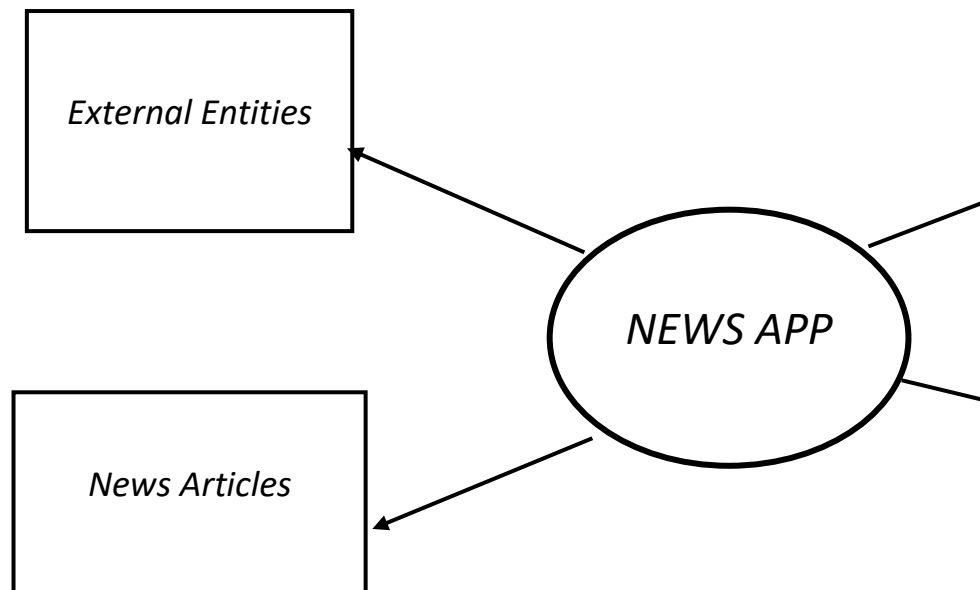
APIs : News API

System Design

Data flow daigram



- **Zero level Data flow diagram**



Future Scope of the Project

Enhancements:

The News App website can benefit from user authentication features, allowing users to create accounts for personalized news recommendations and saved preferences. Additionally, optimizing the website for mobile devices will enhance accessibility.

Advanced Features:

Future developments could include improved search functionality, real-time news updates, and personalized content based on user preferences. These enhancements will make the

News App a more valuable
resource for users.

Limitations of the Project

1. **Dependency on External API:** The News App relies on the News API, making it vulnerable to any downtime or changes in the API, which could affect content availability.
2. **Limited Customization:** Users currently have minimal options for customizing their news feed beyond basic category selection.
3. **No Offline Functionality:** The website does not support offline access, requiring an active internet connection to fetch and read articles.
4. **User Authentication Not Implemented:** The absence of user authentication limits personalization features like saved preferences and bookmarks.
5. **Scalability Concerns:** The website may face performance issues as the number of users increases if not optimized for high traffic.

Preferences

Website Preferences:

- <https://newsapi.org>
- <https://developer.mozilla.org/en-US/docs/Web/JavaScript>
- <https://www.w3schools.com/html/>