



INSIGHT STREAM : NAVIGATE THE NEWS LANDSCAPE

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INTRODUCTION

- In today's digital world, getting news is easier than ever, but it also comes with challenges. Social media and online platforms spread news quickly, but they also spread fake information.
- Many people struggle to tell the difference between real and false news. AI helps by showing personalized content, but it can also trap people in their own beliefs by showing only similar views.
- Ethical journalism and fact-checking are important to keep news honest and trustworthy. Governments and tech companies need to control fake news while allowing free speech.
- People should learn how to check if news is true before believing or sharing it. By being careful and choosing reliable sources, we can stay informed

SOFTWARE REQUIREMENT

- **FRONT-END DEVELOPMENT:**

- 1.HTML

- 2.CSS

- 3.REACT.JS

- **BACK-END DEVELOPMENT**

- 1.NODE.JS

- **DATA SOURCE:**

- 1.NEWSAPI

FEATURE OF THE APP

1. REAL-TIME NEWS UPDATES:

ALWAYS UP-TO-DATE: THE APP FETCHES THE LATEST NEWS ARTICLES FROM NEWSAPI IN REAL-TIME, ENSURING THAT USERS HAVE ACCESS TO CURRENT AND RELEVANT NEWS.

2. CATEGORIZED NEWS

CATEGORIES INCLUDE:

TECHNOLOGY

BUSINESS

SPORTS

HEALTH

ENTERTAINMENT

3. USER-FRIENDLY INTERFACE

CLEAN DESIGN: THE APP FEATURES A MINIMALIST AND EASY-TO-USE DESIGN, MAKING IT SIMPLE FOR USERS TO NAVIGATE AND READ ARTICLES WITHOUT DISTRACTIONS.

RESPONSIVE LAYOUT: BUILT WITH BOOTSTRAP, THE APP ADAPTS TO ANY SCREEN SIZE, OFFERING AN OPTIMAL READING EXPERIENCE ON DESKTOPS, TABLETS, AND SMARTPHONES.

4. SECURE AND PRIVATE:

HTTPS FOR SECURITY: ALL DATA BETWEEN THE APP AND NEWSAPI IS ENCRYPTED USING HTTPS TO PROTECT USER PRIVACY AND PREVENT DATA INTERCEPTION.

FEATURE OF THE APP

1. Real-Time News Updates:

Always Up-to-Date: The app fetches the latest news articles from NewsAPI in real-time, ensuring that users have access to current and relevant news.

2. Categorized News

Categories Include:

Technology

Business

Sports

Health

Entertainment

3. User-Friendly Interface

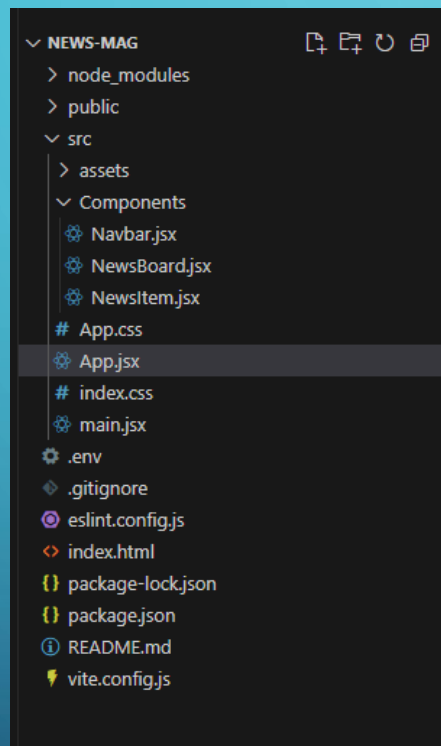
Clean Design: The app features a minimalist and easy-to-use design, making it simple for users to navigate and read articles without distractions.

Responsive Layout: Built with Bootstrap, the app adapts to any screen size, offering an optimal reading experience on desktops, tablets, and smartphones.

4. Secure and private:

https for security: all data between the app and newsapi is encrypted using https to protect user privacy and prevent data interception.

PROJECT STRUCTURE



PROGRAM AND EXPLANATION

1. Index.html

- This HTML code creates a simple webpage for a project called "News Mag." It includes:
- Meta tags for setting the character encoding (UTF-8) and making the page responsive on different devices.
- A title for the page ("News Mag").
- A link to Bootstrap CSS for styling the page with Bootstrap.
- A `<div>` element with the ID "root" to serve as a container for the app (likely React-based). Scripts for loading React and Bootstrap's JavaScript components.

1.index.html

```
<!doctype html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>News website</title>
    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/css/bootstrap.min.css"
    rel="stylesheet"
    integrity="sha384-QWTKZyjpPEjISv5WaRU90FeRpok6YctnYmDr5pNlyT2bRjXh0JMhjY6hW+ALEwIH"
    crossorigin="anonymous">
  </head>
  <body>
    <div id="root"></div>
    <script type="module" src="/src/main.jsx"></script>
    <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/js/bootstrap.bundle.min.js"
    integrity="sha384-YvpcrYf0tY3lHB60NNkmXc5s9fDVZLESaAA55NDz0xhy9GkcIdslK1eN7N6jIeHz" crossorigin="anonymous"></script>
  </body>
</html>
```


2. navbar.jsx:

- This code defines a responsive navigation bar in React that allows users to select different categories (Technology, Business, Health, Sports) by clicking on links.
- When a category is clicked, it triggers the `setCategory` function to update the selected category.
- The navbar also includes a toggle feature for small screens using Bootstrap classes.

2.Navbar.jsx

```
const Navbar = ({setCategory}) => {
  return (
    <nav
      className="navbar navbar-expand-lg bg-body-tertiary"
      data-bs-theme="dark"
    >
      <div className="container-fluid">
        <a className="navbar-brand" href="#">
          <span className="badge bg-light text-dark fs-4">NewsMag</span>
        </a>
        <button
          className="navbar-toggler"
          type="button"
          data-bs-toggle="collapse"
          data-bs-target="#navbarNav"
          aria-controls="navbarNav"
          aria-expanded="false"
          aria-label="Toggle navigation"
        >
          <span className="navbar-toggler-icon"></span>
        </button>
        <div className="collapse navbar-collapse" id="navbarNav">
          <ul className="navbar-nav">
            <li className="nav-item">
              <div className="nav-link" onClick={()=>setCategory("technology")}>
                Technology
              </div>
            </li>
            <li className="nav-item">
              <div className="nav-link" onClick={()=>setCategory("business")}>
                Business
              </div>
            </li>
            <li className="nav-item">
              <div className="nav-link" onClick={()=>setCategory("health")}>
                Health
              </div>
            </li>
            <li className="nav-item">
              <div className="nav-link" onClick={()=>setCategory("sports")}>
                Sports
              </div>
            </li>
            <li className="nav-item">
              <div className="nav-link" onClick={()=>setCategory("entertainment")}>
                Entertainment
              </div>
            </li>
          </ul>
        </div>
      </div>
    </nav>
  );
};

export default Navbar;
```

3.NewsBoard.jsx:

- This code defines a NewsBoard component that displays news articles based on the selected category.
- It uses the useEffect hook to fetch the latest news from an API whenever the category prop changes.
- The articles are stored in the articles state, and each article is displayed using the NewsItem component. The news articles are updated whenever the category is updated, providing real-time changes based on user selection.

3.Newsboard.jsx

```
import { useEffect, useState } from "react"
import NewsItem from "../NewsItem";

const NewsBoard = ({category}) => {

  const [articles,setArticles] = useState([]);

  useEffect(()=>{
    let url = `https://newsapi.org/v2/top-headlines?country=us&category=${category}&apiKey=${import.meta.env.VITE_API_KEY}`;
    fetch(url).then(response=> response.json()).then(data=> setArticles(data.articles));

  },[category])

  return(
    <div>
      <h2 className="text-center">Latest <span className="badge bg-danger">News</span></h2>
      {articles.map((news,index)=>{
        return <NewsItem key={index} title={news.title} description={news.description} src={news.urlToImage} url={news.url}/>
      })}
    </div>
  )
}

export default NewsBoard
```

4.NewsItem.jsx:

- The NewsItem component displays an individual news article with a title, description, image, and a "Read More" link.
- it falls back to a default image. The title and description are truncated to fit the card layout.
- The title is sliced to show the first 50 characters, and the description is sliced to 90 characters, with a fallback description if it's missing.
- A "Read More" button links to the full article using the url prop.

4.NewsItem.jsx

```
import image from '../assets/news.jpg';
const NewsItem = ({title, description, src, url}) => {
  return (
    <div className="card bg-dark text-light mb-3 d-inline-block my-3 mx-3 px-2 py-2" style={{maxWidth:"345px"}}>
      <img src={src?src:image} style={{height:"200px",width:"330px"}} className="card-img-top" alt="..." />
      <div className="card-body">
        <h5 className="card-title">{title.slice(0,50)}</h5>
        <p className="card-text">{description?description.slice(0,90):"News is a current event. It is information about something that has just happened."}</p>
        <a href={url} class="btn btn-primary">Read More</a>
      </div>
    </div>
  )
}

export default NewsItem
```

5.App.jsx:

This App component serves as the main entry point of the application, managing the selected news category and rendering the Navbar and NewsBoard components.

- Explanation:

State Management: Uses `useState` to store the category, defaulting to "general".

Navbar Component: Passes `setCategory` to allow category selection.

- NewsBoard Component: Receives category and displays news based on the selected category.

- Important Lines:

Initializes state to store the selected news category. Passes `setCategory` to Navbar so users can change the category.

Passes category to NewsBoard to fetch and display relevant news.

- 5.App.jsx:

```
import { useState } from "react";
import Navbar from "../Components/Navbar";
import NewsBoard from "../Components/NewsBoard";

const App = () => {
  const [category,setCategory] = useState("general");
  return (
    <div>
      <Navbar setCategory={setCategory}/>
      <NewsBoard category={category}/>
    </div>
  )
}

export default App
```

6.main.jsx:

- This code initializes a React application and renders the main component (App) inside the root element of an HTML page.
- Important Lines:
 1. `import { StrictMode } from "react";` – Enables additional checks and warnings in development mode.
 2. `import { createRoot } from "react-dom/client";` – Uses React 18's `createRoot` API for rendering.
 3. `createRoot(document.getElementById("root")).render(<StrictMode><App/></Strictmode>);` – Selects the root HTML element and renders the App component inside it.

6.main.jsx:

```
import { StrictMode } from "react";
import { createRoot } from "react-dom/client";
import "./index.css";
import App from "./App.jsx";

createRoot(document.getElementById("root")).render(
  <StrictMode>
    <App />
  </StrictMode>
);
```

OUTPUT

NewsMag

Technology Business Health Sports Entertainment

Latest News



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