PROJECT REPORT

InsightStream: Navigate the News Landscape

YEAR   : **2024 – 2025**

COLLEGE NAME   : **K.C.S KASI NADAR COLLEGE OF ARTS & SCIENCE**

CODE   : UNM203

DEPARTMENT   : **COMPUTER SCIENCE**

PROGRAM   : **B.C.A**

SEMESTER   : **VI**

PROJECT SUBMITTED TO: UNIVERSITY OF MADRAS / NAAN MUDALVAN

Course Name   : **Front End Development and Database Administration**

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InsightStream: Navigate the News Landscape (React Application)

Introduction:

InsightStream is a revolutionary web application designed to redefine how people discover and consume news. It offers an intuitive interface, dynamic search, and a vast range of news categories for all types of users. Join InsightStream to embark on an informative journey and experience the future of news consumption.

Description:

☐ Welcome to the cutting-edge frontier of news exploration with InsightStream! Our revolutionary web application is meticulously crafted to transcend the boundaries of traditional news consumption, catering to the diverse interests of both avid news enthusiasts and seasoned information professionals. With an emphasis on an intuitive user interface and a robust feature set, InsightStream is poised to redefine the entire news discovery and consumption process.

☐ Designed with a commitment to user-friendly aesthetics, InsightStream immerses users in an unparalleled journalistic adventure. Navigate seamlessly through a vast expanse of news categories with features such as dynamic search, effortlessly bringing you the latest and most relevant stories from around the world.

☐ From those seeking the latest headlines to seasoned news connoisseurs, InsightStream embraces a diverse audience, fostering a dynamic community united by a shared passion for staying informed. Our vision is to reshape how users interact with news, presenting a platform that not only delivers breaking stories but also encourages collaboration and sharing within the vibrant news community.

☐ Embark on this informative journey with us, where innovation seamlessly intertwines with journalistic tradition. Every click within InsightStream propels you closer to a realm of global happenings and perspectives. Join us and experience the evolution of news consumption, where each feature is meticulously crafted to offer a glimpse into the future of staying informed.

☐ Elevate your news exploration with InsightStream, where every headline becomes a gateway to a world of information waiting to be discovered and understood. Trust InsightStream to be your reliable companion on the journey of staying connected with the pulse of the world.

Features of InsightStream:

1. **News from API Sources:** Access a vast library of global news spanning various categories and interests, ensuring a well-rounded coverage of current affairs.
2. **Visual News Exploration:** Discover breaking stories and explore different news categories through curated image galleries, enhancing the visual appeal of news discovery.
3. **Intuitive Design:** Navigate the application seamlessly with a clean, modern interface designed for optimal user experience and clarity in information presentation.
4. **Advanced Search Feature:** Easily access news articles on specific topics through a powerful search feature, providing users with tailored news content based on their interests.

Project structure:

```
NEWS-APP
> node_modules
> public
v src
  > components
  > context
  > pages
  > styles
  # App.css
  JS App.js
  JS App.test.js
  # index.css
  JS index.js
  logo.svg
  JS reportWebVitals.js
  JS setupTests.js
  .gitignore
  {} package-lock.json
  {} package.json
  (i) README.md
```
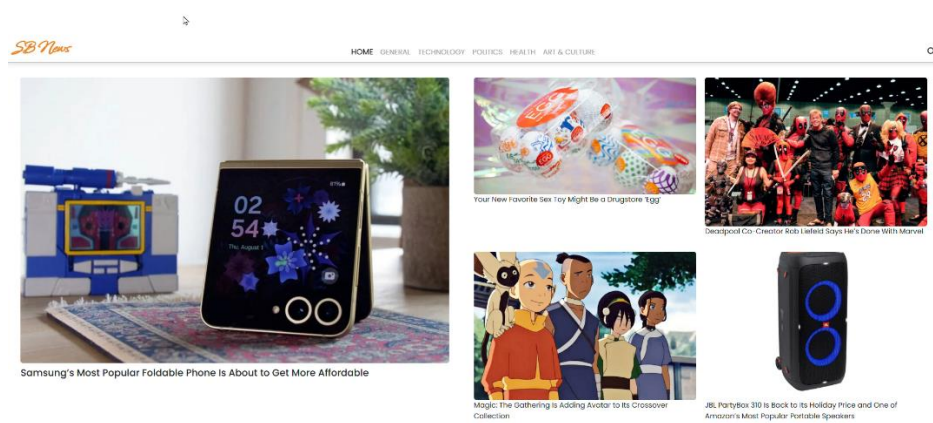
```
v src
  v components
    Footer.jsx
    Hero.jsx
    HomeArticles.jsx
    NavbarComponent.jsx
    NewsLetter.jsx
    TopStories.jsx
  v context
    GeneralContext.jsx
  v pages
    CategoryPage.jsx
    Home.jsx
    NewsPage.jsx
  v styles
    # CategoryPage.css
    # Footer.css
    # Hero.css
    # Home.css
    # HomeArticles.css
    # Navbar.css
    # NewsLetter.css
    # NewsPage.css
    # TopStories.css
```

Project Execution:

Here are some of the screenshots of the application.
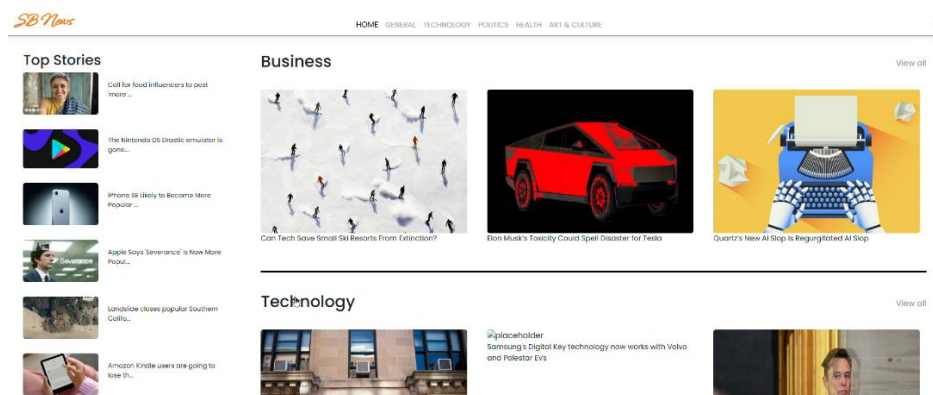
1.   Hero components

In the hero component, the trending news articles are displayed. It is to highlight them. Apart from that, the search bar is also available to search for various articles and categories.
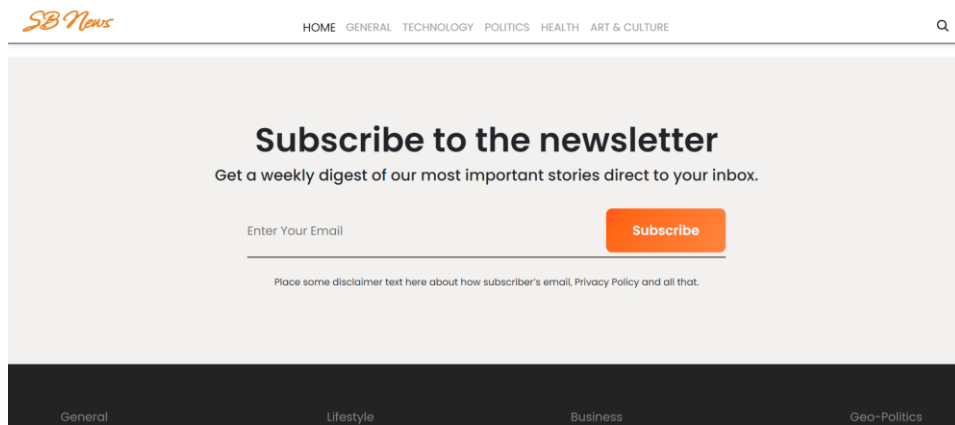

2.   Popular categories

In the hero component, the trending news articles are displayed. It is to highlight them. Apart from that, the search bar is also available to search for various articles and categories.
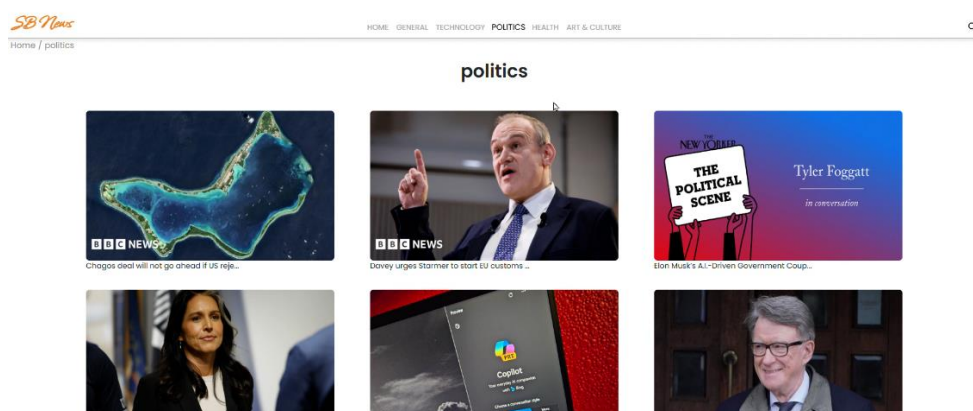
3.   Newsletter

Staying informed is key! This section would act as a magnet for users who want to stay up-to-date on the latest news. A brief signup form with an email field would be presented, along with a clear call to action button like "Subscribe Now" or "Get Daily News Updates." With a simple click, users can join the InsightStream community and receive curated news delivered straight to their inbox.

4.   Category/Search result page

Finding the news you crave is effortless with InsightStream. This page displays a neatly organized list of articles matching your chosen category or specific search query. Each entry would provide a clear headline, a concise summary, and if available, an image to give you a quick glimpse into the story. To further refine your exploration, filters or sorting options might be available. Imagine narrowing down results by date, source, keyword, or other relevant criteria to pinpoint exactly what you're looking for.

5. **Redirected Article page**

This is where you dive deep! The article page proudly displays the complete news story, retrieved directly from the original source. To keep you engaged and exploring related topics, the page might also suggest additional articles based on the current story. These suggestions can open doors to a world of interconnected information, allowing you to become a well-rounded news connoisseur.

Sample Code:

CategoryPage.jsx: (APIKEY)

```
import React, { useEffect, useState } from 'react'

import '../styles/CategoryPage.css'

import axios from 'axios';

import { useNavigate, useParams } from 'react-router-dom';

import { Pagination, Spinner } from 'react-bootstrap';


const CategoryPage = () => {


  const navigate = useNavigate();


  const [categoryNews, setCategoryNews] = useState([]);


  const {id} = useParams();
```

```jsx
useEffect(() => {

  if (id){

    fetchNews(id)

  }

}, [window.location.pathname])


const fetchNews = async (id) => {

  try {

                            const         response         =         await
axios.get(`https://newsapi.org/v2/everything?q=${id}&apiKey=37306aca596542f0
a8402978de3d4224`);

    setCategoryNews(response.data.articles);

  } catch (error) {

    console.error(error);

  }

}


const [activePage, setActivePage] = useState(1);

let items = [];

for (let number = 1; number <= (categoryNews.length / 21); number++) {

  items.push(

    <Pagination.Item key={number} active={number === activePage} onClick={()=>
setActivePage(number)} >

      {number}

    </Pagination.Item>,

  );

}


return (
```

```jsx
    <div className='category-page'>


      <div className="category-header">

        <div>

          <p onClick={()=> navigate("/")} >Home</p>

          <p>/</p>

          <p>{id}</p>

        </div>

        <h3>{id}</h3>

      </div>


      {categoryNews && categoryNews.length > 0 ?


        <div className="category-articles">


          {categoryNews.map((article, index) => {

            return index >= (activePage * 21) - 21 && index < activePage * 21 &&

            (


                  <div   className="category-article"   key={index}   onClick={()=>
window.open(article.url, '_blank')}>

                    <img src={article.urlToImage} alt="article " />

                    <p>{article.title.slice(0,40)}...</p>


                  </div>


          )})}
```

```jsx
        </div>
      :
      <div className="spinners">
        <Spinner animation="grow" size="sm" />
        <Spinner animation="grow" size="sm" />
        <Spinner animation="grow" size="sm" />
      </div>}


      <div className="pagination-container">
        <p>Page: </p>
        <Pagination>
          {items}
        </Pagination>
      </div>
    </div>
  )
}


export default CategoryPage
```

Home.jsx:

```jsx
import React from 'react'

import '../styles/Home.css'

import Hero from '../components/Hero'

import TopStories from '../components/TopStories'

import HomeArticles from '../components/HomeArticles'

import NewsLetter from '../components/NewsLetter'


const Home = () => {
  return (
    <div className="Home">
      <Hero />


      <div className="home-components">
        <TopStories />
        <HomeArticles />
      </div>


      <NewsLetter />

    </div>
  )
}


export default Home
```

TopStories:

```jsx
import React, { useEffect, useState } from 'react'

import '../styles/TopStories.css'

import axios from 'axios';

import { useNavigate } from 'react-router-dom';

import { GeneralContext } from '../context/GeneralContext';

import { Spinner } from 'react-bootstrap';


const TopStories = () => {


  const navigate = useNavigate();


  const {topNews} = React.useContext(GeneralContext)


  return (
    <div className="top-stories-container">


      <h3>Top Stories</h3>


      {topNews && topNews.length > 0 ?


      <div className="top-stories">


        {topNews.map((article, index) => {

          return index > 5 && index < 16 && (

            <div className="top-story" key={index} onClick={()=>
window.open(article.url, '_blank')} >
```

```jsx
                    <img src={article.urlToImage} alt="placeholder" />

                    <p>{article.title.slice(0,40)}...</p>

                </div>

            )

        }


        )}


        <button onClick={()=> navigate('/category/trending')} >View more</button>


    </div>


    :

    <div className="spinners">

      <Spinner animation="grow" size="sm" />

      <Spinner animation="grow" size="sm" />

      <Spinner animation="grow" size="sm" />

    </div>}


  </div>

 )

}


export default TopStories
```

Project Code link:

[6EA9/NEWSAPP](#)

Project Demo link:

[news app - Google Drive](#)