

INSIGHTSTREAM

-NAVIGATE THE NEWS LANDSCAPE

INTRODUCTION:

In a world of constant change, staying informed is more than a choice—it's a necessity. InsightSteam is your guide to navigating the evolving landscape of news, trends, and insights. We bridge the gap between information and action, delivering data-driven analysis, expert perspectives, and real-time updates to help you make smarter decisions.

With a commitment to clarity, accuracy, and innovation, InsightSteam transforms complexity into actionable intelligence. Whether you're tracking industry shifts, market dynamics, or global developments, we empower you to Navigate the Newscape with confidence.

Project Overview:

Insight Stream News Navigate is a dynamic news aggregation and navigation system designed to help users access categorized, real-time news updates efficiently. It provides a smooth and interactive experience, allowing users to browse, filter, and personalize their news feeds.

LANGUAGE USING:

FRONTEND:

HTML – Structure and layout of the web page.

CSS – Styling, responsiveness, and dark mod

JavaScript – Fetching news data from APIs, handling UI interactions, and implementing dark mode.

BACKEND:

Node.js:

Node.js is a JavaScript runtime built on Chrome's V8 engine, making it efficient for handling real-time data and APIs.

- ✓ Non-blocking & Asynchronous: Handles multiple requests simultaneously
- ✓ Fast Performance: Uses an event-driven model
- ✓ Scalable: Perfect for handling news updates & user interactions.

Backend Framework – Express.js

Express.js is a lightweight Node.js framework used to build REST APIs.

- ✓ Minimal & Fast – Only essential tools for routing and middleware
- ✓ Easy to Integrate – Works with databases like MySQL, MongoDB
- ✓ Flexible Middleware Support – Handles authentication, logging, and error handling.

SOURCE CODE:

INDEX.HTML

```
<!DOCTYPE html>

<html lang="en">

<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title> G4sha News</title>
    <link rel="stylesheet" href="styles.css">
    <link rel="stylesheet"
        href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/6.0.0/css/all.min.css">
    <script src="script.js" defer></script>
</head>

<body>
    <nav>
        <div class="main-nav">
            <div class="left-section">
                <a href="" class="company-logo">
                    
                </a>
                <h1 class="site-title">InsightStream</h1>
            </div>
            <div class="nav-links">
```

```
<ul>

    <li class="hover-link nav-item" id="general"
onClick="onNavItemClick('general')">General</li>

    <li class="hover-link nav-item" id="business"
onClick="onNavItemClick('business')">Business</li>

    <li class="hover-link nav-item" id="technology"
onClick="onNavItemClick('technology')">Technology</li>

    <li class="hover-link nav-item" id="politics"
onClick="onNavItemClick('politics')">Politics</li>

    <li class="hover-link nav-item" id="entertainment"
onClick="onNavItemClick('entertainment')">Entertainment</li>

    <li class="hover-link nav-item" id="chennai"
onClick="onNavItemClick('chennai')">Chennai</li>

</ul>

</div>

<div class="search-bar">

    <input type="text" class="news-input" id="search-text"
placeholder="e.g. Science">

    <button class="search-button" id="search-
button">Search</button>

</div>

</div>

</nav>

<main>

    <div class="cards-container container flex" id="cardscontainer">
```

```
</div>

</main>

<template id="template-news-card">
  <div class="card">
    <div class="card-header">
      <img
        src=""
        alt="news image"
        id="news-img"
        onerror="this.src='./images/fallback-image.jpg'">
    >
  </div>
  <div class="card-content">
    <h3 id="news-title">Insightstream</h3>
    <h6 class="news-source" id="news-
source">InsightStream</h6>
    <p class="news-desc" id="news-desc">Lorem ipsum dolor sit
    amet consectetur adipisicing elit.</p>
  </div>
</div>
</template>
```

```
<footer>

<div class="footer-main">

<div class="footer-container">

<div class="footer-section">

<h3>About InsightStream</h3>

<p>Your trusted source for the latest news and updates from around the world.</p>

</div>

<div class="footer-section">

<h3>Academic Credits</h3>

<p>PROF:DHANAPALAN COLLEGE</p>

<p>Nan Mudhalvan </p>

<p>News API Integration Project</p>

</div>

<div class="footer-section">

<h3>Project Team</h3>

<ul>

<li>Sandhiya M </li>

<li>Renuga K</li>

<li>Revathi D</li>

<li>Praveen D</li>

</ul>
```

```
</div>

<div class="footer-section">

    <h3>Categories</h3>
    <ul>

        <li><a href="#" onclick="onNavItemClick('technology')">Technology</a></li>
        <li><a href="#" onclick="onNavItemClick('business')">Business</a></li>
        <li><a href="#" onclick="onNavItemClick('entertainment')">Entertainment</a></li>
        <li><a href="#" onclick="onNavItemClick('politics')">Politics</a></li>
        <li><a href="#" onclick="onNavItemClick('chennai')">Chennai</a></li>
    </ul>
</div>
```

```
<div class="footer-section">

    <h3>Connect With Us</h3>
    <div class="social-links">
        <a href="#"><i class="fab fa-facebook"></i></a>
        <a href="#"><i class="fab fa-twitter"></i></a>
        <a href="#"><i class="fab fa-instagram"></i></a>
    </div>
</div>
```

```
</div>

</div>

<div class="footer-bottom">
    <p>&copy; 2025 InsightStream News. All rights reserved.</p>
</div>
</footer>

</body>

</html>
```

SCRIPT.JS

```
const API_KEY = "a2263ce9b4a24ebfa0f59710526a65c6";
const url = "https://newsapi.org/v2/everything?q=";

let isLoading = false;
let curSelectedNav = null;

window.addEventListener("load", () => {
    fetchNews("Technology");
    const techNav = document.getElementById("technology");
```

```
techNav?.classList.add("active");

curSelectedNav = techNav;

});

async function fetchNews(query) {
  try {
    if (isLoading) return;

    isLoading = true;
    showLoadingIndicator();

    const encodedQuery = encodeURIComponent(`$ {query} news`);

    const res = await
      fetch(`$ {url}$ {encodedQuery}&apiKey=$ {API_KEY}`);
    if (!res.ok) {
      throw new Error(`HTTP error! status: ${res.status}`);
    }

    const data = await res.json();

    if (data.status === "error") {
      throw new Error(data.message);
    }
  }
}
```

```
    bindData(data.articles);

} catch (error) {
    showError(error.message);
} finally {
    isLoading = false;
    hideLoadingIndicator();
}

}

function showLoadingIndicator() {
    const cardsContainer =
document.getElementById("cardscontainer");
    cardsContainer.innerHTML = '<div class="loading">Loading
news...</div>';
}

function hideLoadingIndicator() {
    const loadingDiv = document.querySelector(".loading");
    if (loadingDiv) {
        loadingDiv.remove();
    }
}
```

```
function showError(message) {  
    const cardsContainer =  
document.getElementById("cardscontainer");  
    cardsContainer.innerHTML = `<div class="error">Error:  
${message}</div>`;  
}  
  
  
function bindData(articles) {  
    const cardsContainer =  
document.getElementById("cardscontainer");  
    const newsCardTemplate = document.getElementById("template-  
news-card");  
  
    cardsContainer.innerHTML = "";  
  
  
    if (!articles || articles.length === 0) {  
        cardsContainer.innerHTML = '<div class="no-results">No news  
found</div>';  
        return;  
    }  
  
  
    articles.forEach((article) => {  
        if (!article.urlToImage || !article.description) return;  
        const cardClone = newsCardTemplate.content.cloneNode(true);  
        fillDataInCard(cardClone, article);  
    })  
}
```

```
    cardsContainer.appendChild(cardClone);

});

}

function fillDataInCard(cardClone, article) {
    const newsImg = cardClone.querySelector("#news-img");
    const newsTitle = cardClone.querySelector("#news-title");
    const newsSource = cardClone.querySelector("#news-source");
    const newsDesc = cardClone.querySelector("#news-desc");

    newsImg.src = article.urlToImage;
    newsImg.onerror = function() {
        this.src = './images/fallback-image.jpg';
    };

    newsTitle.innerHTML = truncateText(article.title, 60);
    newsDesc.innerHTML = truncateText(article.description, 150);

    const date = new Date(article.publishedAt).toLocaleString("en-IN",
{
    timeZone: "Asia/Kolkata",
    day: 'numeric',
    month: 'short',
    year: 'numeric',
}
```

```
    hour: '2-digit',
    minute: '2-digit'
  });
}
```

```
newsSource.innerHTML = `${article.source.name} · ${date}`;
```

```
cardClone.firstChild.addEventListener("click", () => {
  window.open(article.url, "_blank");
});
}
```

```
function truncateText(text, maxLength) {
  if (!text) return "";
  return text.length > maxLength ? `${text.slice(0, maxLength)}...` :
  text;
}
```

```
function onNavItemClick(id) {
  const navItem = document.getElementById(id);
  if (navItem === curSelectedNav) return;

  fetchNews(id);
  curSelectedNav.classList.remove("active");
  curSelectedNav = navItem;
```

```
    curSelectedNav.classList.add("active");

}

const searchButton = document.getElementById("search-button");
const searchText = document.getElementById("search-text");

searchText.addEventListener("keypress", (e) => {
    if (e.key === "Enter") {
        const query = searchText.value.trim();
        if (query) {
            fetchNews(query);
            curSelectedNav?.classList.remove("active");
            curSelectedNav = null;
        }
    }
});

searchButton.addEventListener("click", () => {
    const query = searchText.value.trim();
    if (query) {
        fetchNews(query);
        curSelectedNav?.classList.remove("active");
        curSelectedNav = null;
    }
})
```

```
});
```

```
const style = document.createElement('style');
```

```
style.textContent = `
```

```
  .loading, .error, .no-results {
```

```
    text-align: center;
```

```
    padding: 20px;
```

```
    font-size: 1.2rem;
```

```
    color: var(--secondary-text-color);
```

```
}
```

```
.error {
```

```
  color: #dc3545;
```

```
}
```

```
.card img {
```

```
  transition: opacity 0.3s ease;
```

```
}
```

```
.card img[src="""] {
```

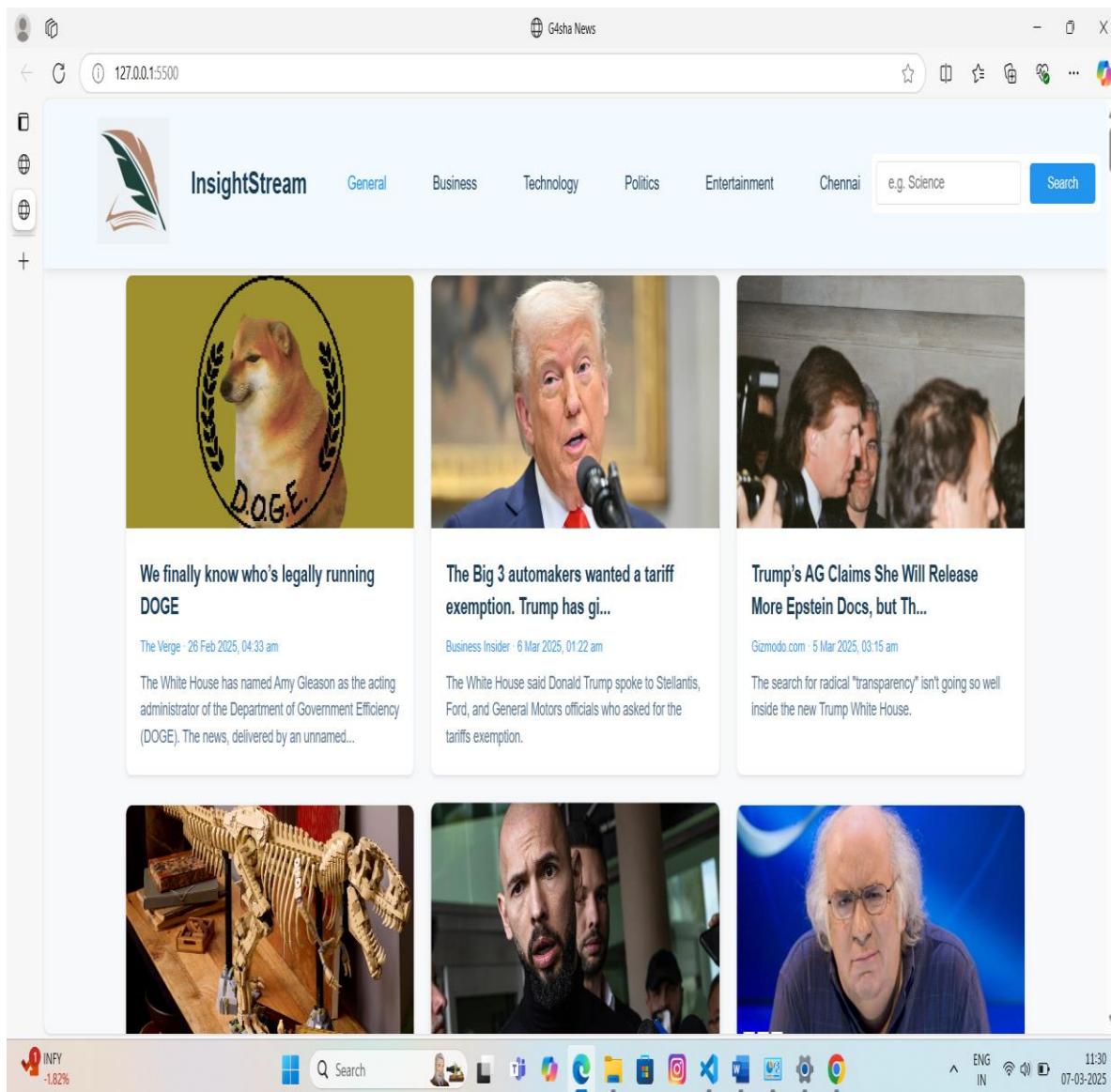
```
  opacity: 0;
```

```
}
```

```
 `;
```

```
document.head.appendChild(style);
```

SCREEN DESIGN:



SEARCH BAR:

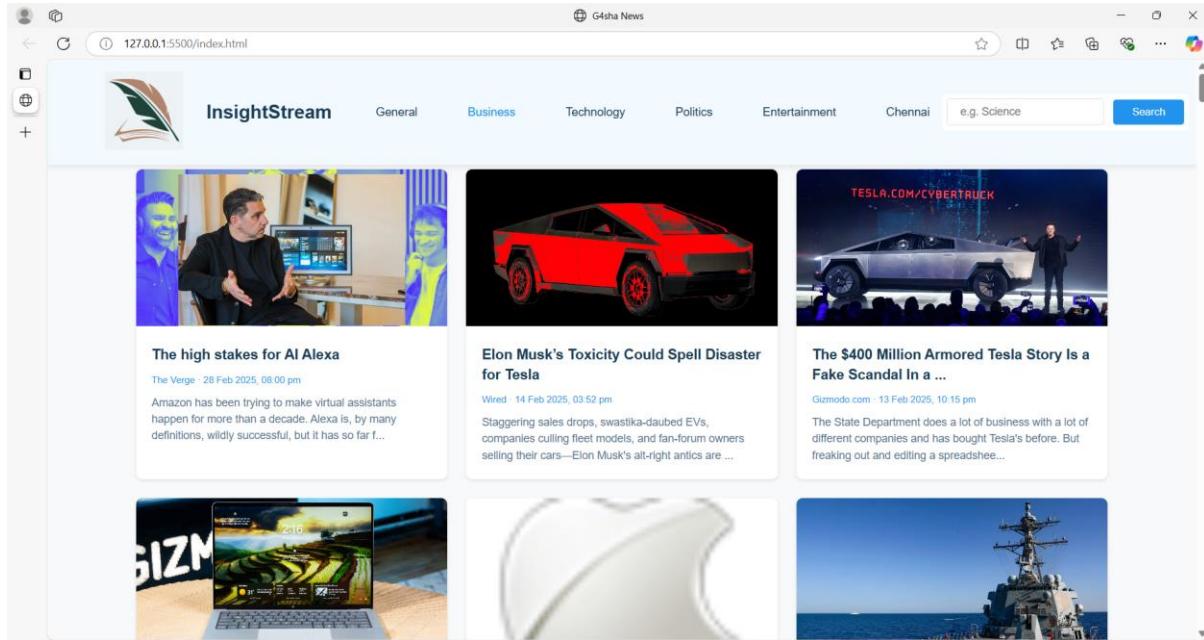
Search bar consists the we search the news what we want with relatable content.

GENERAL PAGE:

Its just general view page for regenerating the latest news update with trending healines.

BUSINESS PAGE:

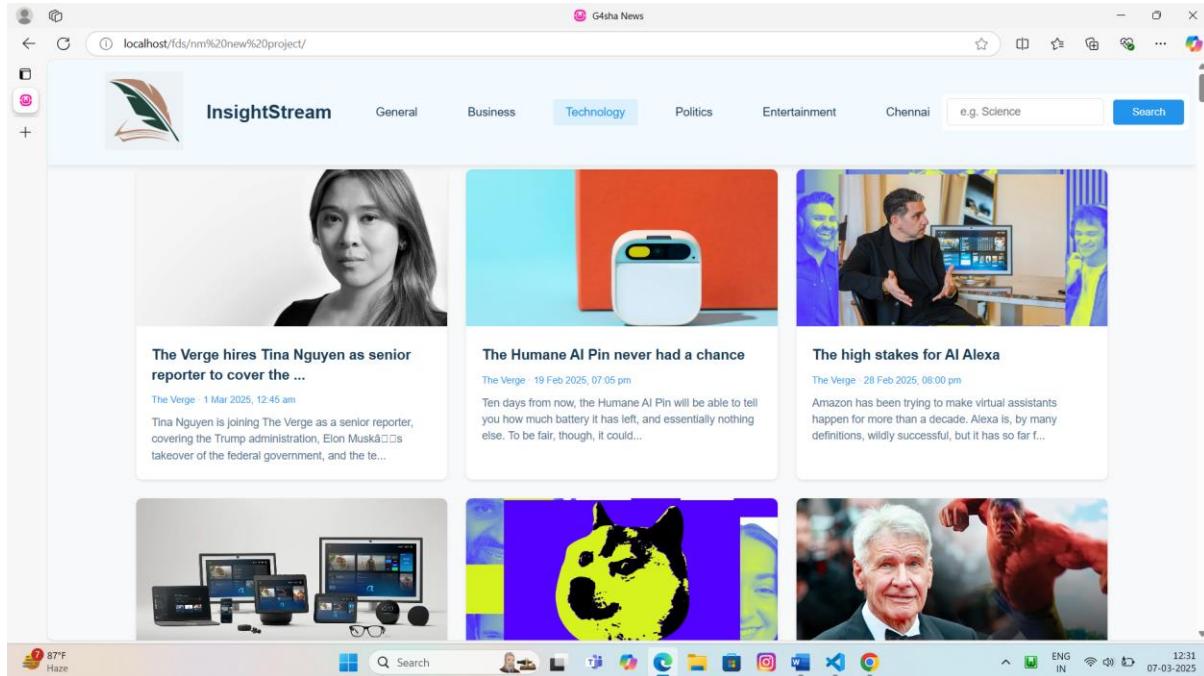
Its just business page for regenerating the business content with latest update.



Its just business view page for regenerating the business news updates.

TECHNOLOGY PAGE:

Its just a technology content which is used to regenerating the technology news.



ENTERTAINMENT PAGE:

The screenshot shows the Entertainment section of the InsightStream website. At the top, there is a navigation bar with links for General, Business, Technology, Politics, Entertainment (which is highlighted in blue), and Chennai. A search bar is also present. Below the navigation, there are four news cards arranged in a grid. The first card features an image of Disney's Cinderella Castle and the headline "Disney Is the Latest Entertainment Company to Comply With Tr...". The second card shows a photo of TV chef Gino D'Acampo and the headline "TV chef Gino D'Acampo denies inappropriate behaviour claims". The third card has an image of a Fire TV Soundbar and the headline "Amazon Fire TV Soundbar Just Crashed to \$99, 14x Cheaper Tha...". The fourth card shows two people in a game environment and the headline "Apps for Everyday Life". The bottom of the screen shows a Windows taskbar with various icons and system status information.

FOOT PAGE:

The screenshot shows the footer section of the InsightStream website. It contains several useful links and social media icons. On the left, there is a "About InsightStream" section with a brief description of the site as a trusted source for news. In the center, there are sections for "Academic Credits" (listing PROF.DHANAPALAN COLLEGE, Nan Mudhalvan, and News API Integration Project) and "Project Team" (listing Sandhiya M, Renuga K, Revathi D, and Praveen D). On the right, there is a "Categories" section with links to Technology, Business, Entertainment, Politics, and Chennai. Below these categories is a "Connect With Us" section featuring icons for various social media platforms. At the very bottom, a copyright notice reads "© 2025 InsightStream News. All rights reserved." The bottom of the screen shows a Windows taskbar with various icons and system status information.

FUTURE ENHANCEMENT:

Future enhancement of Insight Stream News Navigate application refers to planned improvements that will enhance its functionality, usability, and overall user experience. These enhancements may include personalized news recommendations using AI, multi-language support to provide news in regional languages, and advanced search and filtering options for better content discovery. Security features like social logins, two-factor authentication, and role-based access can also be added to ensure secure user authentication. Additionally, developing a mobile application using React Native or Flutter will expand accessibility, while features like push notifications and offline reading mode will enhance user engagement. To support long-term sustainability, monetization options such as advertisements, subscriptions, or partnerships with news agencies can be integrated. These future enhancements will help the application evolve, stay relevant, and provide a seamless news-reading experience for users.

CONCLUSION:

Insight Stream News Navigate application is designed to provide users with a seamless and efficient way to access real-time news from various sources. By leveraging Node.js, React.js, and MySQL, the platform ensures fast performance, scalability, and a user-friendly experience. With features like news categorization, bookmarking, and user preferences, the application enhances accessibility and personalization.

Looking ahead, future enhancements such as AI-driven recommendations, multi-language support, mobile app development, and advanced security measures will further improve functionality and user engagement. By continuously evolving with new technologies and user needs, the application aims to become a

comprehensive and reliable news platform, delivering relevant and insightful content to users in an intuitive and engaging manner.

THANK YOU!!!

-BY

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K.RENUGA

D.REVATHI

M.SANDHIYA