Technical Council Project

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Case study

IITGN Website(iitgn.ac.in)

Performance Analysis:

1) Page Load Times: The website generally loads quickly, with most pages loading within a reasonable timeframe. However, some larger pages, such as those containing high-resolution images or complex elements, may take slightly longer to load. Optimizing the file sizes and implementing caching strategies can further enhance page load times.

2) Responsiveness: The website is responsive and adjusts well to different screen sizes and devices. It adapts its layout and content to provide a satisfactory user experience on both desktop and mobile devices

3) Overall User Experience: The website provides a good user experience, as it offers clear navigation and well-organized content. The information is easily accessible, and the layout is intuitive, allowing users to find the desired information without much effort.

UX Evaluation:

Strengths:

- Clear Navigation: The website has a well-structured navigation menu that allows users to find the desired sections and information quickly
- Informative Content: The website provides comprehensive and relevant information about the institute, including academic programs, faculty, research, and events.
- Responsive Design: The responsive design ensures a seamless user experience across different devices.

Areas for Improvement:

- Visual Hierarchy: While the website is informative, there could be improvements in the visual hierarchy of the content. Emphasizing important information, such as key achievements or upcoming events, through visual cues (such as size, color, or placement) can improve user engagement.
- Accessibility: It is important to ensure that the website is accessible to users with disabilities. Conducting an accessibility audit and implementing WCAG (Web Content Accessibility Guidelines) standards can enhance inclusivity.

UI Evaluation:

Strengths:

- Clean and Professional Design: The website features a clean and professional design that reflects the institution's identity.

- Consistency: The use of consistent colors, fonts, and layouts throughout the website provides a cohesive user experience.

- Minimalist Approach: The website avoids clutter and excessive elements, allowing the content to take center stage.

Areas for Improvement:

- Visual Enhancements: The website could benefit from more visually engaging elements, such as high-quality images, illustrations, or videos, to make the pages visually appealing and capture users' attention.

- Typography: While the current typography is legible, exploring different font styles or sizes can add variety and improve readability.

Suggestions for Improvement:

1. Implement lazy loading for images and optimize file sizes to improve page load times further. Conduct user testing and gather feedback to identify any pain points or areas of confusion for users.

2. Enhance the visual hierarchy by using appropriate visual cues to highlight important information.

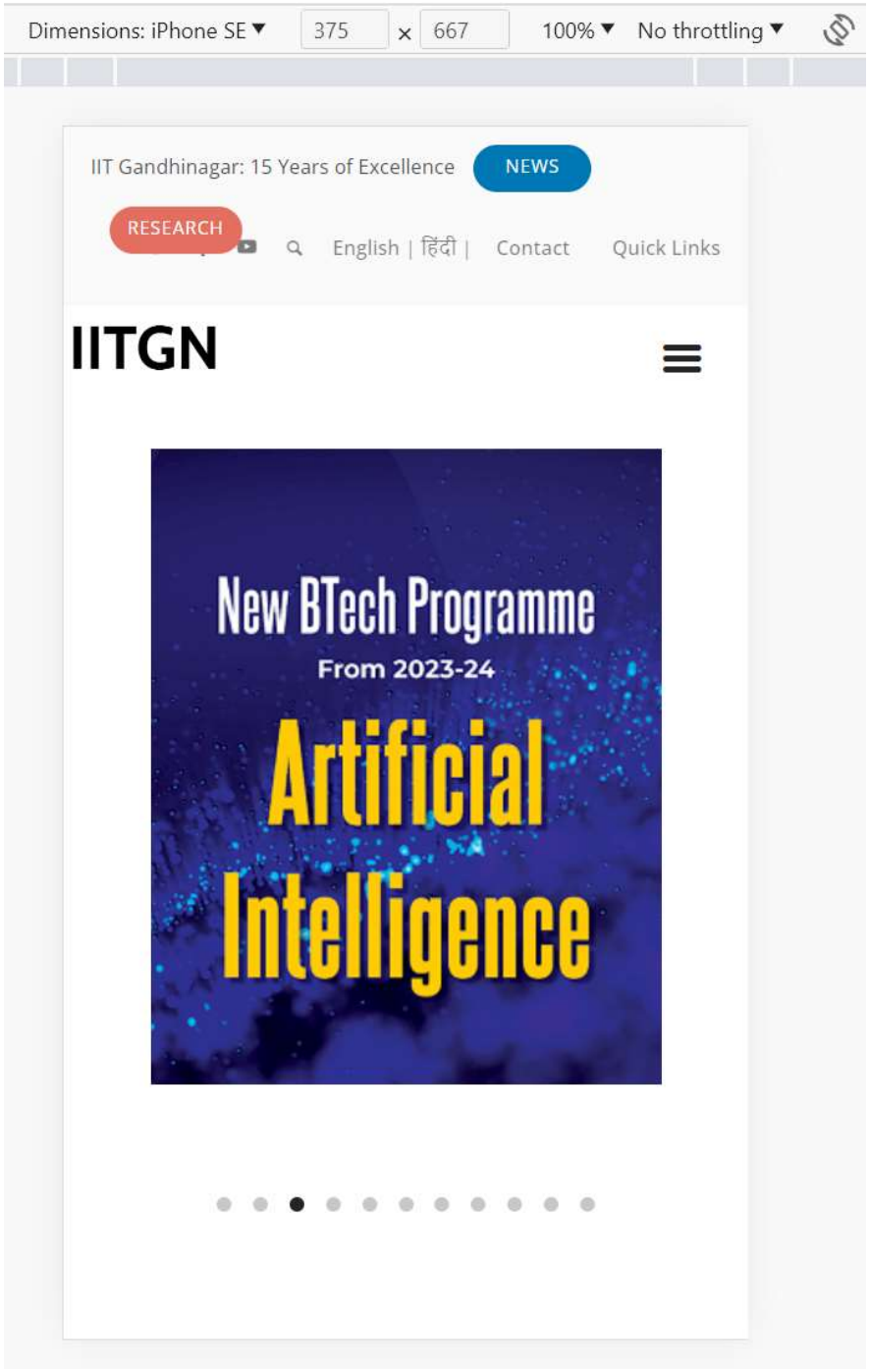
3. Ensure the website meets accessibility standards by conducting an accessibility audit and making necessary improvements.

4. Consider incorporating interactive elements, such as forms or interactive modules, to engage users and enhance their interaction with the website.

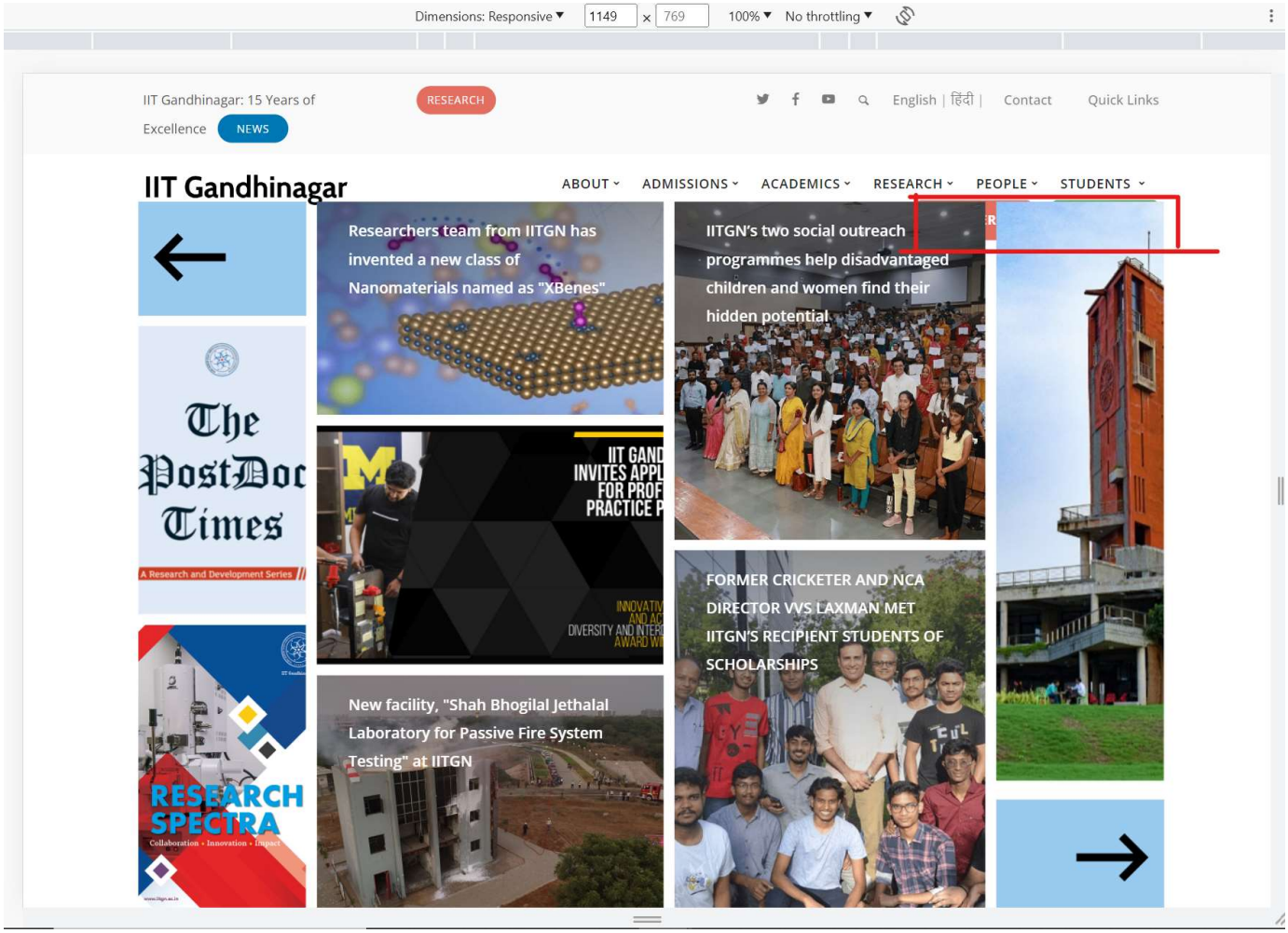
Observation:

1) Notification on the picture that is not looking interactive and viewable.

2) For the iPhone SE Facebook logo, hide behind the Research button.



3)Careers and giving button hide behind the pictures at 1149X769



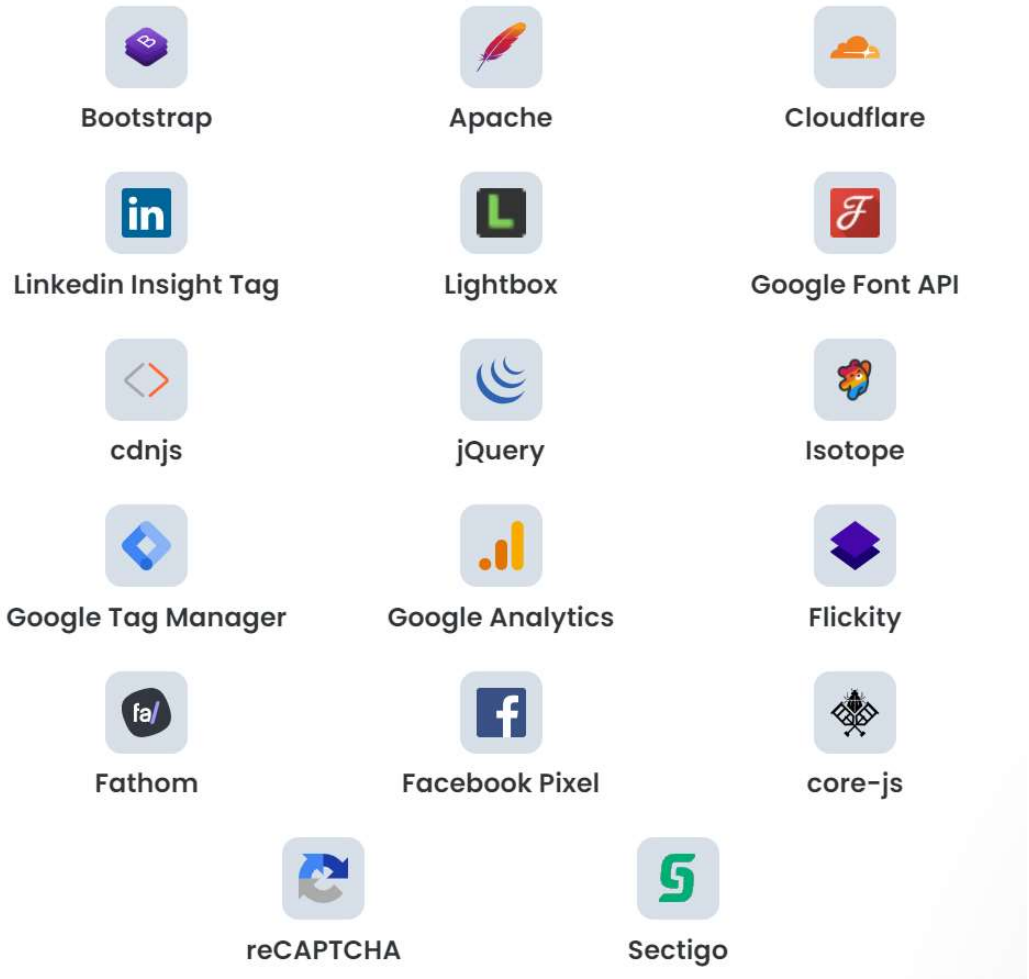
Tech Stack Analysis:

1. Front-end Technologies:
    - HTML: The website structure and content are built using HTML, which is the standard markup language for creating web pages.
    - CSS: CSS is used for styling and layout purposes, allowing the website to have a visually appealing design.
    - JavaScript: JavaScript is used for adding interactivity and dynamic elements to the website.

2. Back-end Technologies:
    - Content Management System (CMS): It seems that the website is built on a CMS platform, such as WordPress or Drupal. This allows for easy content management and updates without requiring extensive technical knowledge.

3. Server-Side Technologies:
    - PHP: PHP is a popular server-side scripting language that is commonly used in conjunction with CMS platforms like WordPress.
    - MySQL: The website likely uses MySQL as its database management system to store and retrieve data.

4. Additional Technologies:
    - Apache: The website is hosted on an Apache web server, which is a widely used web server software.



IMDb Website(https://www.imdb.com/)

Performance Analysis:

1. Page Load Times: The website generally loads quickly, delivering a seamless browsing experience. The optimized loading of images, scripts, and content contributes to the efficient page load times.

2. Responsiveness: The website is highly responsive and adapts well to various screen sizes and devices. It ensures that the content is accessible and legible across desktop and mobile platforms.

3. Overall User Experience: IMDb offers a comprehensive and user-friendly experience, with intuitive navigation and easy access to a vast collection of movie and TV show information.

UX Evaluation:

Strengths:

- Extensive Content: IMDb provides a vast database of movies, TV shows, celebrities, and related information, making it a go-to resource for entertainment enthusiasts.
- Search Functionality: The search feature is prominent and offers predictive suggestions, allowing users to quickly find specific movies, TV shows, or celebrities.
- Ratings and Reviews: The rating system and user reviews provide valuable insights for users when making decisions about which movies or shows to watch.

Areas for Improvement:

- Streamlined Navigation: While the website's navigation is generally straightforward, streamlining the menu structure and optimizing the organization of content could enhance the user experience.
- Personalization: Implementing personalized recommendations or user-specific watchlists can further engage users and enhance their experience on the platform.

UI Evaluation:

Strengths:

- Iconic Branding: The IMDb logo and overall branding are well-established, making the website instantly recognizable and trusted by users.

- Visual Appeal: The website utilizes a visually appealing design, employing high-quality images, movie posters, and cover art to create an immersive experience.

- Consistency: The use of consistent design elements, such as typography, color schemes, and layout, contributes to a cohesive and familiar user interface.

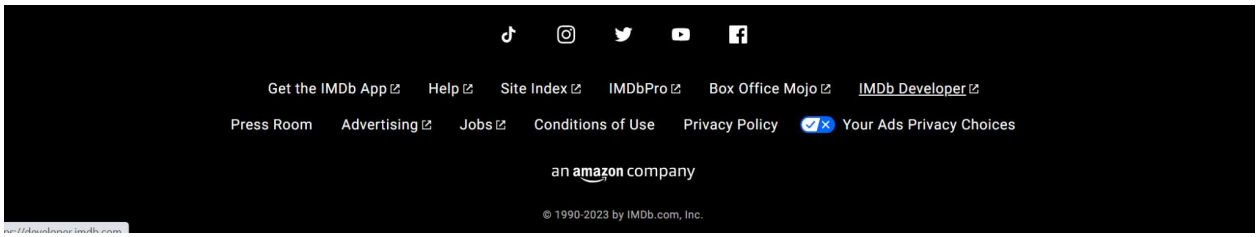
Areas for Improvement:

- Simplified Layout: While the current layout is functional, reducing clutter and optimizing the placement of key elements could improve the overall visual flow.

- Typography and Readability: Some sections of the website could benefit from improved typography choices and readability enhancements, particularly for longer text passages.

Observation:

1) Footer is not looking interactive.



Tech Stack Analysis:

1. Front-end Technologies:
    - HTML: The structure and content of the website are built using HTML.
    - CSS: CSS is used for styling and visual presentation.
    - JavaScript: JavaScript is utilized for interactivity and dynamic elements on the website.

2. Back-end Technologies:
    - Backend Programming Language: The website employs server-side scripting languages such as Python or PHP for handling server-side operations.

    - Data Storage: IMDb uses a combination of relational databases (e.g., MySQL) and NoSQL databases for storing and managing their extensive collection of movie and TV show data.

3. Additional Technologies:
    - Content Delivery Network (CDN): IMDb may utilize CDNs to deliver content and optimize page load times efficiently.

    - Caching Mechanisms: Caching techniques are likely implemented to enhance website performance and reduce server load.

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insIIT App

Tech Stack Analysis:

Frontend:

- Flutter: The frontend of the app is developed using the Flutter framework. Flutter is a cross-platform UI toolkit that allows developers to build high-quality native interfaces for iOS, Android, and other platforms from a single codebase. It enables fast and expressive app development with a rich set of pre-built widgets and a reactive programming model.

Backend:

- Node.js: The backend of the app is implemented using Node.js, which is a JavaScript runtime built on Chrome's V8 JavaScript engine. Node.js enables server-side development using JavaScript, providing a scalable and efficient platform for building network applications.

- MongoDB (Atlas): The app's backend data is stored in MongoDB, a NoSQL database. MongoDB Atlas is a cloud-based database service that provides a fully managed and scalable MongoDB solution. It offers flexibility in data storage and retrieval, making it suitable for handling diverse data structures.

- Google Sheets: Google Sheets is used as a data source, which suggests that the app may integrate with Google Sheets for storing and retrieving data.

- Firebase: Firebase is a mobile and web development platform provided by Google. It offers various backend services, such as authentication, real-time database, cloud messaging, and more. The app may utilize Firebase services for features like user authentication or real-time data updates.

Deployment:

- IITGN Servers: The app's backend is deployed on servers managed by IITGN (Indian Institute of Technology Gandhinagar). It suggests that the app's backend is hosted on IITGN's infrastructure, ensuring reliable access and availability.

Performance Analysis:

- Network Requests: Evaluate the efficiency of network requests made by the app, ensuring they are optimized for speed and responsiveness.
- Data Handling: Assess how the app handles and processes data from the Google Sheets API and other backend services. Check for any potential bottlenecks or performance issues.
- Responsiveness: Test the app on different devices and network conditions to ensure it maintains good performance and responsiveness.

UX Evaluation:

- User-Friendliness: Assess whether the app is intuitive and easy to use, particularly for users without technical knowledge. Consider the ease of modifying data through the Google Sheets API.
- Accessibility: Evaluate the app's accessibility features, ensuring it is usable for people with disabilities. Verify that the app adheres to accessibility guidelines.
- Error Handling: Check how the app handles errors or invalid data from the Google Sheets API, providing clear and informative error messages to the user.
- Real-time Updates: If the app supports real-time updates from the Google Sheets API, ensure the updates are smooth and seamless for the user.

UI Evaluation:

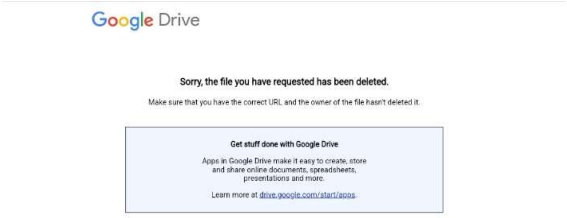
- Visual Appeal: Evaluate the overall visual design of the app, including the use of colors, typography, and visual elements. Ensure it aligns with the app's purpose and target audience.
- Consistency: Check if the UI elements, layouts, and styles are consistent throughout the app, providing a cohesive user experience.
- Interactive Elements: Assess the use of interactive elements, such as buttons, forms, or menus, to ensure they are easily understandable and responsive.
- Responsiveness: Verify that the app's UI adapts well to different screen sizes and orientations, providing a consistent experience across devices.

Improvement Suggestions:

- User Feedback: Gather feedback from users, especially those without technical knowledge, to identify pain points and areas for improvement.
- Streamlined Data Modification: Consider implementing features that simplify data modification through the Google Sheets API, such as providing predefined templates or intuitive data entry forms.
- Enhanced Error Handling: Improve error handling by providing clear and helpful error messages to guide users when encountering issues related to the Google Sheets API.
- UI Refinement: Continuously refine the app's UI based on user feedback, ensuring it remains visually appealing, intuitive, and consistent.

Observation:

1) Report Bug button is not working. It is showing the file you have requested has been deleted.



2) There is only a GitHub account link of Team InsIIT. We can also add their LinkedIn account link to contact the team quickly.