Internship Report

Revamping the PNGRB Website: A Detailed UI/UX Design Report

UI/UX Designer -Internship

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at

Petroleum and Natural Gas Regulatory Board (PNGRB)



Submitted by:

Ishita Mishra

(B.Tech, 4th year, Computer Science Engineering)
SRM Institute of Science and Technology

Petroleum and Natural Gas Regulatory Board (PNGRB)

The Petroleum and Natural Gas Regulatory Board, PNGRB, was instituted in 2006 under the Petroleum and Natural Gas Regulatory Board Act, 2006 to regulate the refining, processing, storage, transportation, distribution, marketing, and sale of petroleum, petroleum products, and natural gas. Therefore, PNGRB plays a pivotal role in ensuring effective performance of the oil and gas sector while providing adequate protection of consumer and other interests.

PNGRB is headquartered in New Delhi, India, and is an autonomous body under the Ministry of Petroleum and Natural Gas. Its main mandate is to create a fair and competitive market environment for the downstream oil and gas sector, ensuring that all players-whether private or public sector companies-operate on a level playing field. It also encourages the availability of natural gas and petroleum products at affordable prices throughout the country.

The other key responsibility of PNGRB is to develop a robust pipeline infrastructure. PNGRB grants authorizations for the establishment of city gas distribution networks and monitors their performance, thereby ensuring that the benefits of natural gas reach households, industries, and the transportation sector efficiently. The board also formulates technical and safety standards to ensure the secure handling of petroleum and natural gas infrastructure.

Another important part of the function of PNGRB is to solve disputes and grievances of the sector. The board serves as a quasi-judicial body that allows for dispute resolution, an imperative to harmony in this important sector. In addition, the board ensures transparent pricing and helps the consumer in making them aware of their rights and responsibilities.

PNGRB's activities aim to contribute towards the realization of the government's vision of switching to a clean and sustainable energy system. Promoting the consumption of natural gas and renewable sources of energy significantly helps reduce the carbon footprint of India and keeps up with the international obligations on climate change mitigation.

PNGRB continuously tries to adopt new technologies and frameworks in a forward-looking approach towards modernizing the energy sector and making it more efficient and sustainable. Its efforts have not only supported economic growth but also reinforced energy security in India.

In a nutshell, PNGRB is the key organization in India's energy landscape, trying to balance the needs of consumers, industry stakeholders, and environmental sustainability while ensuring that the nation's energy needs are met effectively.

ACKNOWLEDGEMENT

I am grateful for the opportunity provided by the **Petroleum and Natural Gas Regulatory Board**, along with their encouragement, to undertake and successfully complete the project of revamping the PNGRB website as a UI/UX designer.

I would also like to thank Lt. Col. Pawan Kumar Uniyal, Director (Admin, HR & IT), for his priceless guidance, support, and valuable feedback during the entire course of this project. His vision and leadership helped chart the course for this redesign and kept it in line with organizational objectives.

I extend equal gratitude to **Shri Vikas Sharma**, **Deputy Director (IT)**, who provided quality technical output through his inputs, constructive suggestions, and continuous motivation. His support was very instrumental in the successful execution of this project, while his practical insights considerably enriched the final design.

I sincerely thank the PNGRB team and everyone who contributed to the successful completion of this project. Their support inspired me to deliver a user-centric and efficient website design.

This experience has been truly rewarding, and I'm honored to have been part of such an impactful initiative.

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ABSTRACT

The Petroleum and Natural Gas Regulatory Board, PNGRB, plays a significant role in the regulation of petroleum and natural gas sectors in India. The existing website is functional and serves its purpose; however, there is significant potential to enhance its user experience and interface design for a more optimized and engaging user journey.

Being a UI/UX designer, this redesign project's aim is to design an even more intuitive, user-centric, and visually appealing website for the diversified audience: from government officials and industry professionals to the general public.

User research was the first step in redesigning, and it involved surveying and interviewing key stakeholders: PNGRB employees and website users. This helped in identifying the website's pain points, such as navigation difficulties, cluttered content, and a lack of mobile optimization. With these challenges in mind, the new design would aim to enhance usability, accessibility, and aesthetic appeal of the site.

The primary design goals for this project were to:

1. **Simplify Navigation:** Redesigning the website structure to create a clean and clear menu, making it easier for users to find information quickly.

- 2. **Improve Content Accessibility:** Streamlining the presentation of regulatory documents, reports, and resources, allowing users to filter and access them more efficiently.
- 4. **Visual and Brand Enhancements:** Improved visual design reflecting modern UI with the introduction of PNGRB's branding by adding more professional trustworthy hues, well-balanced typography with consistency in usage of imagery.
- 5. **Interactive Features:** Inclusion of user-friendly features such as data visualization tools for reports, intuitive search functionality, and interactive forms for submissions and queries.

The new website is designed to have a minimalist layout with lots of white space to avoid visual clutter and draw the attention of users to key content. The use of simple, readable fonts and intuitive icons ensures that all users, regardless of their technical expertise, can easily navigate the site.

Lastly, this project intends to heighten the PNGRB's online reputation, user friendliness, and ensure that its website will always be the place where every kind of information pertinent to stakeholders interested in petroleum and natural gas businesses can be acquired. This would mean the redesigned website is no longer a fixed product meeting contemporary needs but adaptable to changing and future requirements along with changes and advancements in technologies.

INTRODUCTION

In the role of UI/UX designer, the assigned task was the redesign of the Petroleum and Natural Gas Regulatory Board (PNGRB) website; the focus area was enhancing its user experience and accessibility along with visual appeal to enable a smooth, intuitive navigation. The website of PNGRB is a source of utmost value for stakeholders with key regulatory information, reports, and compliance data about the oil and gas sector. Therefore, the redesigning project focused on modernizing its interface, ensuring functionality, and presenting the data in a way that is readable and user-friendly.

The existing website was functional but lacked an engaging and cohesive design that could support its diverse range of users, including government officials, industry professionals, and the general public. The content-heavy nature of the site made it difficult for users to quickly locate the necessary information. Besides, the site's navigation was not intuitive, and the visual design did not align with contemporary design trends, which further hindered user interaction and engagement.

The redesign was based on two key aims:

1. **User Experience:** There was an enhanced focus on making the user know the journey for pain points. The project is streamlined, trying to eliminate those pain points along with

simplification of navigation steps. User research and competitor analysis were done as part of efforts to discover and organize content efficiently and clearly depict information.

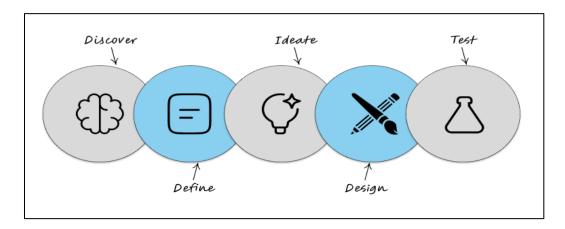
2. **User Interface**: The website visual design was revised to give a more contemporary, professional look and feel. A clean, structured layout was chosen with the intent that it would keep clarity and balance across all the devices. Colors, typography, and graphical elements were well chosen to give a readable view and visually aesthetic interface while aligned with the professional image of PNGRB.

The result of this redesign project will be a website for PNGRB that is not only capable of fulfilling the needs of its diverse user base but also will set a new standard for regulatory websites. Enhanced usability, accessibility, and design will enable the redesigned PNGRB website to empower users to easily navigate through complex data and reports to ensure an efficient and engaging experience.

OBJECTIVE

The objective of this project is to redesign the website of the Petroleum and Natural Gas Regulatory Board (PNGRB) with an emphasis on its user experience (UX) and user interface (UI). The purpose of this is to create a more intuitive, visually appealing, and functional website that will improve user engagement and access to critical information regarding the PNGRB's regulatory framework, reports, and updates. The redesign will prioritize clarity, efficiency, and accessibility, ensuring that stakeholders—including regulatory authorities, industry professionals, and the public—can navigate the site with ease and find relevant information quickly.

METHODOLOGY



Phases

1. Research and Analysis:

- Conduct stakeholder interviews to understand the needs of various user groups, including regulatory bodies, industry professionals, and the public.
- Perform a comprehensive usability audit of the current website for pain points, inconsistencies, and areas for improvement.
- Analyze the industry competitors and best practices in government and regulatory websites in order to adhere to industry standards.

2. Persona Development:

- Develop personas based on user groups identified earlier to ensure the design meets expectations and needs for the target audience.
- Concentrate on Mr. Ashutosh's persona, who is a Data Entry Operator at PNGRB, and focus on the specific needs of internal users managing compliance data, reports, and large databases.

3. Wireframing and Prototyping:

- Low-fidelity wireframes should be created to define the structure and layout of the redesigned website.
- Figma will be used to build interactive prototypes to demonstrate key user flows and ensure a streamlined and user-centric design.

4. UI Design:

- Make a clean, modern visual design representing the brand identity and regulatory standards of PNGRB.
- Choose a consistent color scheme, typography, and design elements that support readability, accessibility, and a professional look and feel.

5. Usability Testing:

- Perform usability testing with a sample group of users to gather feedback on navigation, functionality, and overall experience.
- Iterate on the design based on user feedback to refine user flows and address any pain points.

6. Implementation and Handoff:

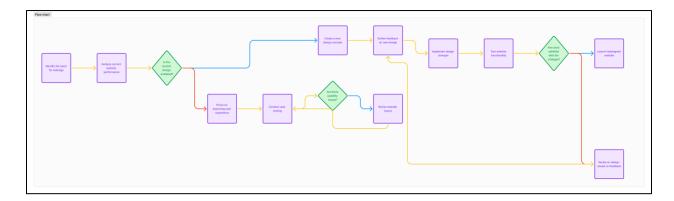
- Prepare design assets, including UI elements, icons, and images, for development.
- Ensure that the final design is responsive and optimized for different devices and screen sizes.

7. Post-launch Evaluation:

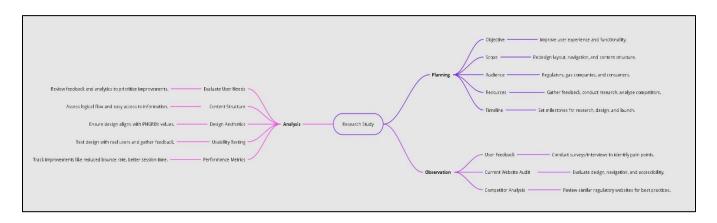
- Monitor user behavior on the redesigned website to identify areas that still have issues or may need further optimization.
- Collect continued feedback to continually improve the website and ensure an ongoing improvement of the user experience.

DESIGN SYSTEM

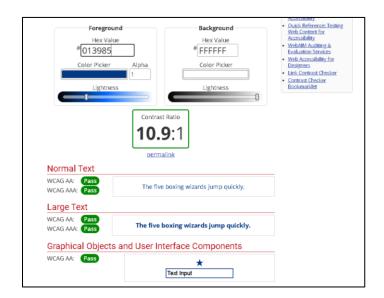
The purpose of revamping the PNGRB website is to enhance user experience (UX) and user interface (UI) while ensuring accessibility, usability, and alignment with PNGRB's goals. This detailed report outlines the proposed design system, key UI/UX principles, and implementation strategies.



UserChart



MindMap



Contrast Checker

Open Sans

Typography: 36px

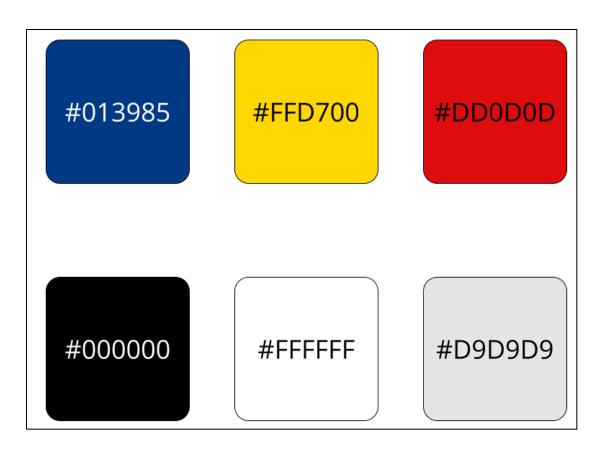
Typography: 24px

Typography: 18px

Typography: 16px

Typography: 16px

Typography



Colors



Components

RESULT & DISCUSSION

Project Implementation

1. Initiating the Design in Figma

- The project begins with creating a frame in Figma as the foundational workspace.
- The frame represents the primary canvas where various design elements will be added to structure the PNGRB website layout effectively.

2. Adding Content and Text Layers

- To include essential information, we create text layers within the frame for headings, subheadings, and body text.
- The content is structured to reflect the key functionalities of PNGRB, such as compliance tracking, reporting, and data management.

3. Enhancing Visual Aesthetics

 Using design principles, we integrate modern colors, typography, and visuals to make the website appealing yet professional. The aesthetic reflects PNGRB's mission to promote transparency and efficiency while ensuring accessibility for all users.

4. Ensuring User-Centric Design

- Since the website serves diverse stakeholders, creative and functional layouts are designed to make navigation seamless and intuitive.
- We incorporate user-friendly elements like quick navigation menus, collapsible sections,
 and tooltips to enhance usability.

5. Maintaining Design Consistency with Column Grids

- A column grid is added to the frame to ensure proper alignment and spacing across the website.
- The grid system standardizes the layout for consistency across different screen sizes.

6. Refining the Layout

 The app screens are carefully aligned, and the layout is refined to ensure visual balance and symmetry. Key sections, such as data submission, compliance monitoring, and reporting, are given prominence based on user priorities.

7. Interactive Prototyping and Feedback

- Clickable prototypes are created in Figma to simulate user interactions, such as navigating between pages, accessing dropdown menus, and submitting data.
- Feedback from stakeholders and user testing is incorporated to iterate and improve the design.

8. Exporting Code with Figma Inspect

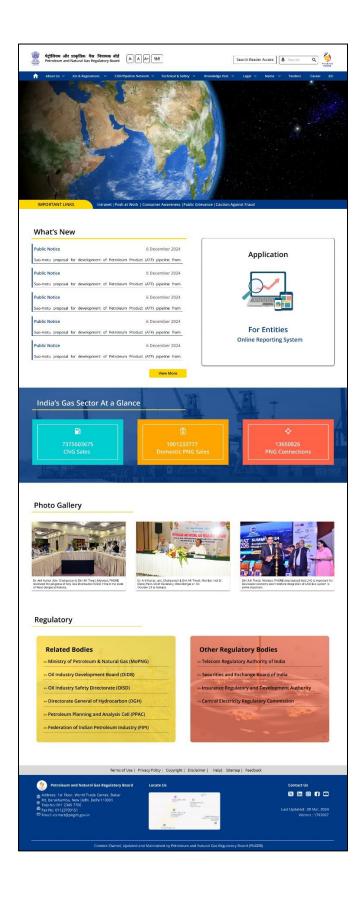
- Once the UI design is finalized, we utilize Figma's built-in plugin Inspect to generate
 HTML and CSS code for the designed screens.
- This feature streamlines the transition from design to development, ensuring that developers can implement the design efficiently.

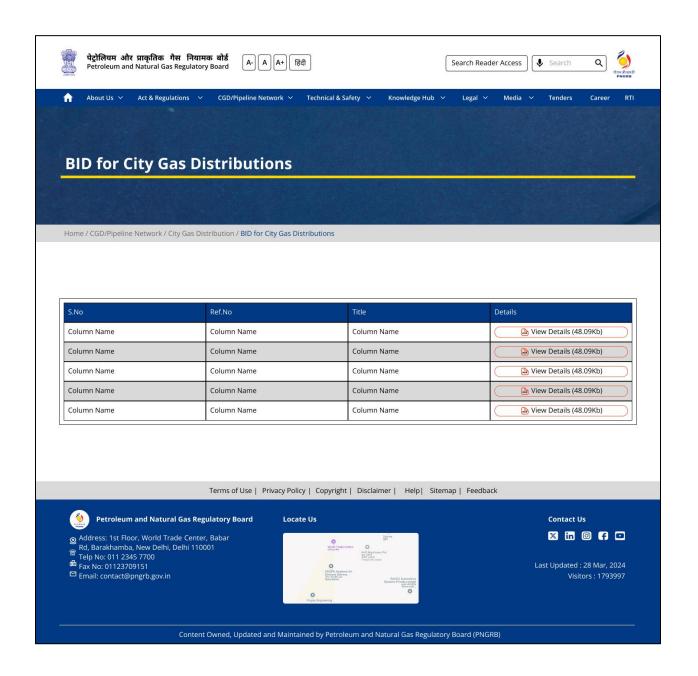
9. Testing in Real Browsers

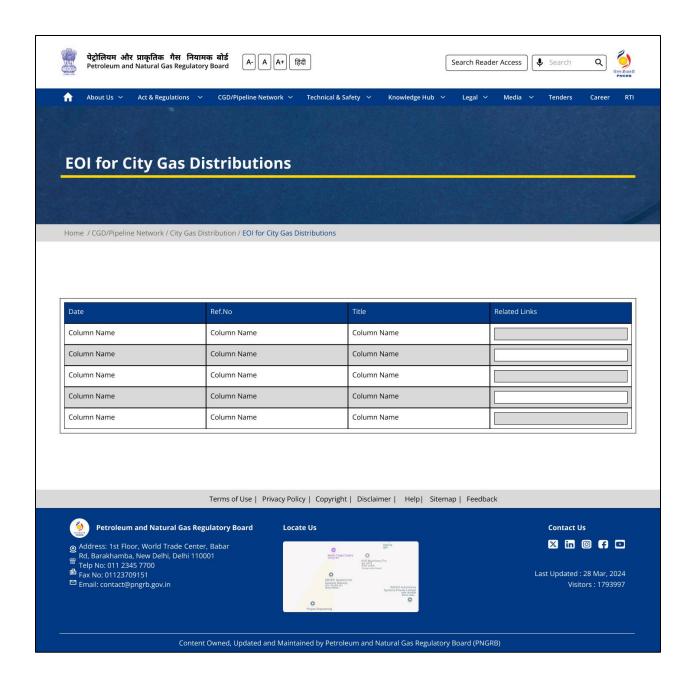
 The generated code is tested in different browsers to validate compatibility, responsiveness, and performance.

•	Adjustments are made as necessary to ensure the design functions seamlessly across all	
	platforms.	

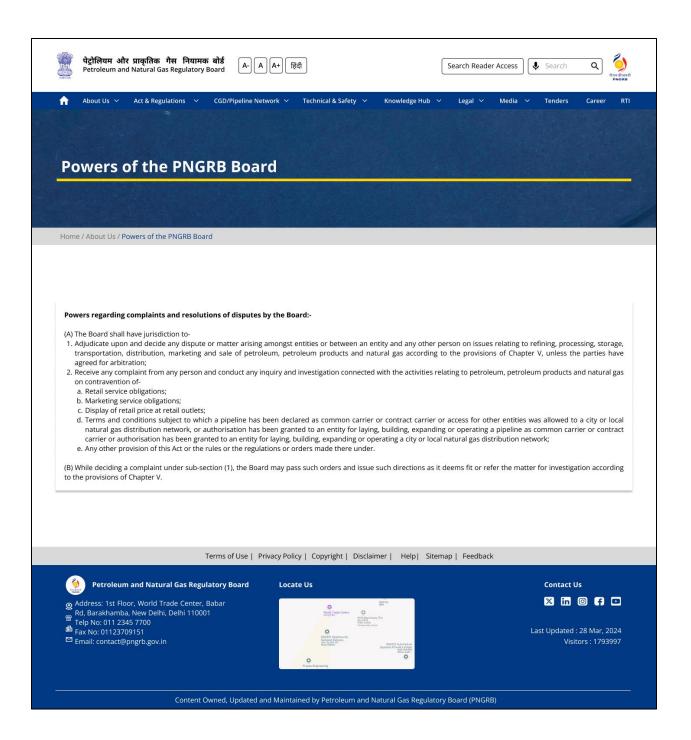
Snapshot

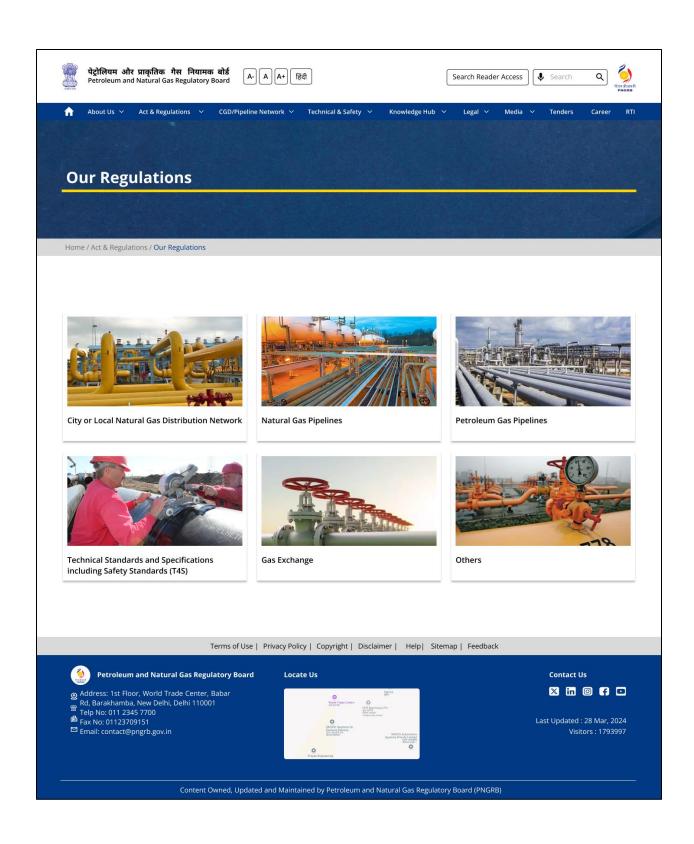


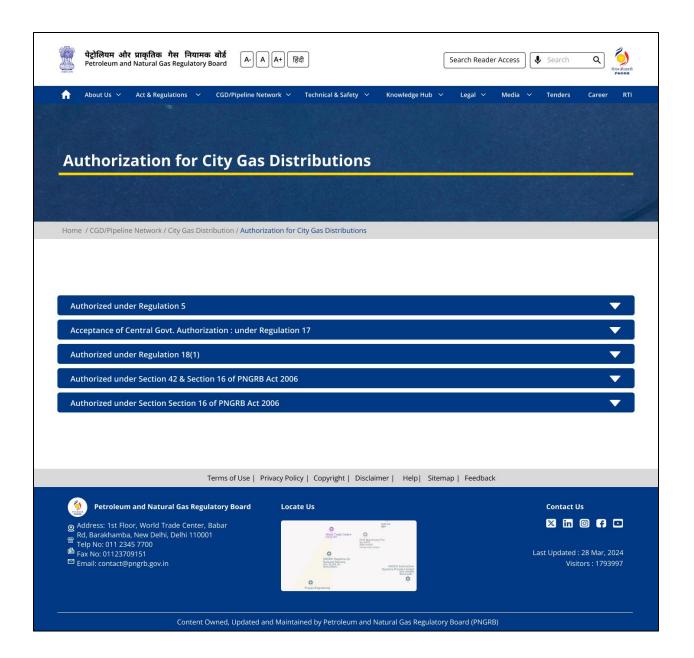


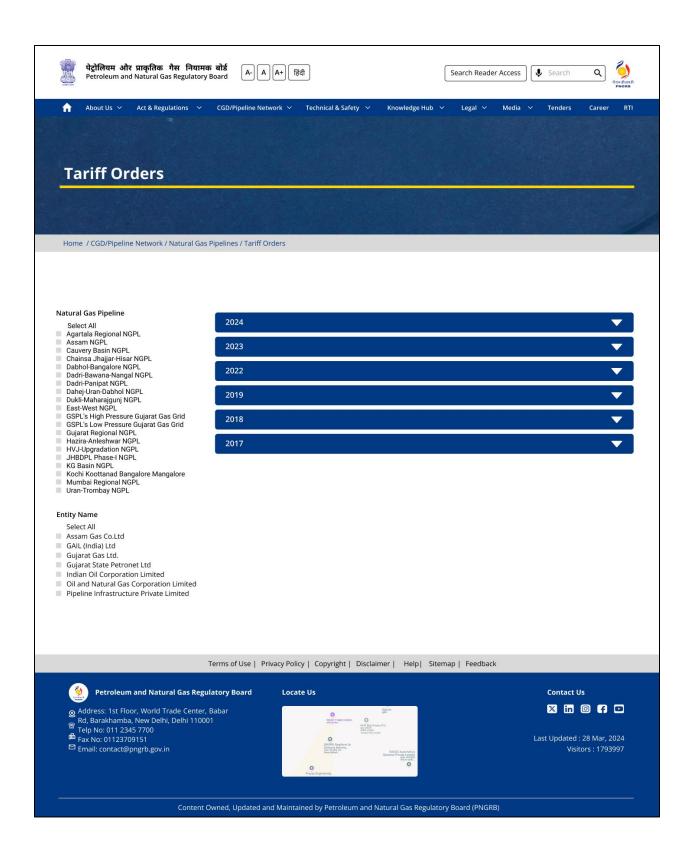












PROJECT

Final Build of the Project

 $\frac{https://www.figma.com/design/zCABiabwBdyEomAxF8m5O2/Untitled?node-id=0-1\&t=wlkraSRHkpXqhfGx-1$

Case Study of the Project

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CONCLUSION

This website revamp of PNGRB is a holistic attempt to make the website more user-friendly, accessible, and visually appealing. This project focused on identifying user pain points, improving the user journey, and aligning the design of the website with modern UI/UX principles. By using the user-centered approach, we have successfully redefined the website as an efficient, intuitive, and aesthetically pleasing platform.

- Improved User Experience: The new design makes it easy to navigate while ensuring that important information, including compliance records and stakeholder updates, is accessed efficiently.
- **Inclusive Design:** The redesign ensures proper functionality across to provide a smooth experience for all users, including accessibility needs.
- Modern Visual Aesthetic: A coherent color scheme, updated typography, and consistent design elements reflect the organization's professionalism and commitment to transparency.
- Improved Data Management: The design streamlines the interface for data entry and reporting, thereby assisting PNGRB staff in handling records more accurately and efficiently.

• Alignment with Stakeholders: The redesign is based on the feedback of the stakeholders to ensure that the platform meets the different requirements and helps in engagement.

This report not only outlines the step-by-step approach to the redesign but also provides a roadmap for future iterations. Regular user testing and iterative improvements will ensure the website continues to meet evolving user needs.

In conclusion, the new PNGRB website showcases what thoughtful UI/UX design can do to transform a digital platform into a powerful tool for efficiency and user satisfaction. It serves as a benchmark for similar initiatives across the world aimed at enhancing the digital infrastructure within regulatory organizations.

MY EXPERIENCE

My experience at PNGRB was incredibly enriching and transformative. It provided me with a platform to work on meaningful projects that directly contributed to improving digital processes and user experiences. Collaborating with a supportive and knowledgeable team allowed me to grow both personally and professionally.

I learned a lot about user-centric design solutions, complex workflows, and innovative ways to optimize efficiency. It not only honed my technical skills but also helped me develop an appreciation for teamwork, problem-solving, and impactful design.

Being part of such an influential initiative has been a truly rewarding and memorable experience.

REFERENCE

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