

A project on:

NALCO INTRANET WEBSITE DEVELOPMENT



NALCO

(National Aluminium Company Limited)

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Certificate

This is to certify that the project titled “Nalco Intranet Website Development” is submitted by Aditi Prusty (Ref No.: HCE/SIP/395/2023) from Institute of Technical Education and Research, SOA University. This project report is submitted in partial fulfilment of for the requirement of certificate of completion of apprenticeship in System Department from 31/07/2023 to 30/08/2023.

Date: 22/08/2023

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Declaration

I hereby declare that work contained in this report is my own work, based on my personal study and/or research and has been done under supervision of my project guide. I confirm that I have identified and declared all possible conflicts that I may have. In case of use of information from any external resources, I have given due credit to them by providing their details in references.

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Acknowledgement

I would like to express my profound gratitude to Mr. Deepak Kumar Pal (manager, Systems Dept.) for his time and efforts he provided throughout the training. His useful advice and suggestions were helpful to me for the project's completion. In this aspect, I am eternally grateful to him for sharing his insights and guiding me in the right way. Further I would like to extend my gratitude to NALCO for providing me this opportunity to undertake the project. This project has contributed in enhancing my skills and polishing my tech stack.

Aditi Prusty

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Project Summary

The **NALCO Intranet Website** project aims to provide a centralized platform to the employees for accessing useful information and data entitled to every employee.

The website contains several classified information required for the personal reference of every employee. It is presented as a collection of menus and submenus to cater the employee's request. It contains sensitive and personal information entitled to a particular employee.

The primary aim is to provide a collective platform in order to access all necessary and required information by the employee. This is a one stop solution for accessing personal data and information. This solves the problem of dispersed data which can lead to inconvenience.

The implementation of this project is related to the website look and design. As a collective website holding many information, there are high chances that it can look chaotic, so the project aims at creating a simplified and efficient design that caters to good user-experience. It includes features like search option which can enable the user to access desired element on search request.

Introduction

The NALCO Intranet Website Project is an initiative undertaken to address the internal personal data and information needs of employees of National Aluminium Company Limited (NALCO).

As a premier and integrated company in the Aluminium value chain with strategic presence in Mining both domestic & global, Metals and Energy sectors, NALCO recognizes the importance of efficient data management and transparency in driving organizational success. In line with this vision, the project aimed to create an intranet website that would serve as a comprehensive platform for employees to access essential information and data.

With a diverse workforce spread across multiple departments and locations, NALCO faced challenges in disseminating information, facilitating employee collaboration, and providing a centralized source of relevant personal information. The traditional methods of communication, such as emails and physical notices, were often inefficient and limited in their reach. Recognizing the need for a modern, user-friendly solution, the NALCO Intranet Website Development Project was initiated to address these challenges and enhance accessing of required information.

The objectives of the project were clear: to improve employee information access. By creating this website, NALCO aimed to streamline the flow of information and improve access to relevant resources. Throughout the project, careful attention was paid to user experience and design principles to ensure that the website would be intuitive, visually appealing, and easy to navigate. Under the guidance of an experienced employee and mentor, proper care was taken to ensure that the website's features and functionalities met the diverse requirements of the organization.

The NALCO Intranet Website Development Project stands as a testament to NALCO's commitment to foster efficient and effective data and information access and driving organizational success through technological innovation.

As we proceed through different sections of this report, we will discover the different technologies used, the enhancement of pre-existing features, the methodologies incorporated, the insights gained and delivered and the difference caused by the desired output. We will look at a detailed description of each section in order to ensure absolute transparency in project execution.

Tools and Technologies

The NALCO intranet website uses a range of tools and technologies to incorporate the result. The primary focus of this project is on developing the website design using frontend technologies. It aims to use different technologies in order to create a design which is efficient to use and also scores in visual appeal.

Frontend Development:

The entire project was based on frontend development using the primary flagship languages HTML, CSS, and JavaScript.

As a part of CSS, Bootstrap, a CSS framework was used to achieve some of the designs. In the JavaScript part, jQuery, a JavaScript library was used to achieve desired functionality.

- HTML:

The Hypertext Markup Language or HTML is the standard markup language for documents designed to be displayed in a web browser. It defines the meaning and structure of web content. Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for its appearance. HTML provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes, and other items. Most of the Bootstrap syntax was included in the HTML file and rendered easily.

- CSS:

Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language such as HTML or XML (including XML dialects such

as SVG, MathML or XHTML).CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript. CSS is designed to enable the separation of content and presentation, including layout, colours, and fonts. This separation can improve content accessibility; provide more flexibility and control in the specification of presentation characteristics; enable multiple web pages to share formatting by specifying the relevant CSS in a separate “.css” file. The major part of CSS was achieved using a well-known CSS framework, Bootstrap. Further view functionalities were improved by adding overriding CSS by targeting particular HTML class and id.

- Bootstrap:

Bootstrap is a free and open-source collection of CSS and JavaScript/jQuery code used for creating dynamic websites layout and web applications. Bootstrap is one of the most popular front-end frameworks which has really a nice set of predefined CSS codes. Bootstrap uses different types of classes to make responsive websites. Bootstrap is a framework that is suitable for mobile-friendly web development. it means the code and the template available on bootstrap are applicable to various screen sizes. It is responsive for every screen size. The framework is free and can be used in 2 ways that are either by downloading the zip files and including libraries/modules of bootstrap in the project or directly including the URL of bootstrap and using the online version.

- JavaScript:

JavaScript, often abbreviated as JS, is a programming language that is one of the core technologies of the World Wide Web, alongside HTML and CSS. JavaScript is a high-level, often just-in-time compiled language that conforms to the ECMAScript standard. It has dynamic typing, prototype-based object-orientation, and first-class functions. It is multi-paradigm, supporting event-driven, functional, and imperative

programming styles. It has application programming interfaces (APIs) for working with text, dates, regular expressions, standard data structures, and the Document Object Model (DOM). In this project, we have used jQuery library. jQuery is a fast, small, and feature-rich JavaScript library. It makes things like HTML document traversal and manipulation, event handling, animation, and Ajax much simpler with an easy-to-use API that works across a multitude of browsers. jQuery is a lightweight, "write less, do more", JavaScript library. The purpose of jQuery is to make it much easier to use JavaScript on your website. jQuery takes a lot of common tasks that require many lines of JavaScript code to accomplish, and wraps them into methods that you can call with a single line of code.

Features and Functionality

The NALCO Intranet Website development project incorporated several features and functionalities to enhance internal data and streamline information access, and foster employee user-experience. Here is an explanation of the website's key features and functionalities:

- The top section begins with a navbar but only comprising of the logo.
- Search Bar:
The search bar ensures active menu search which is implemented using jQuery. It shows the available options in the “Main Menu” when the first few letters are typed. This is implemented using string matching. This is done in order to ensure that any data is easily accessible on search rather than searching for it manually.
- Main menu:
The main menu is covered using two cards which comprises of several options related to digital employees and digital business. The exact and accurate information is not displayed in this project. For the time being, the project uses repetitive dummy data. A hover colour effect is also applied on the menu options. This is done in order to ensure efficient visual appeal and easy identification.
- Sub-menu cards:
The main menu the headings that have sub menu options. Hence this is covered below in cards which can be accessed when a main menu is clicked. This is done by assigning div class ids to main menu options. Further all sub-menus are covered in these small cards. These cards are displayed on a horizontal scroll, for the ease in display. When an option is clicked in the “Main Menu” and it is directed to the “Sub-menu cards”, the respective card is

highlighted with black-border, to clearly show which card has been called.

- Additional sub-menus:

It may happen so that a sub-menu card contains an option that has sub-menus as well. This is achieved by creating a hover dropdown list when can then further take to you to the desired link when clicked upon.

- All the data present on the card as “Sub-menu” and “Additional sub-menu” are displayed dynamically from a jQuery array.
- The website is also made responsive, so that it is easier to be used on any device of varying screen-lengths.

Design and user-experience

The design and user experience (UX) of the NALCO Internal Website were carefully considered to ensure a user-friendly, visually appealing, and intuitive interface. The website's design and UX aimed to enhance employee engagement, streamline information access, and provide a seamless browsing experience. Here is an explanation of the design and user experience aspects:

- **Intuitive Navigation:**

The website was designed with a clear and intuitive navigation structure, making it easy for employees to find the information they needed. The menu and sub-menu sections were organized logically, ensuring that employees could navigate through different pages and sections effortlessly. User-friendly navigation enhanced the overall user experience and minimized confusion.

- **Visual Appeal:**

The website's visual design was crafted to be aesthetically pleasing and consistent with NALCO's branding guidelines. Thoughtful colour choices, typography, and visual elements were implemented to create a visually appealing interface that aligned with the organization's image. The use of appropriate graphics and imagery enhanced the overall visual experience for employees.

- **Responsive Design:**

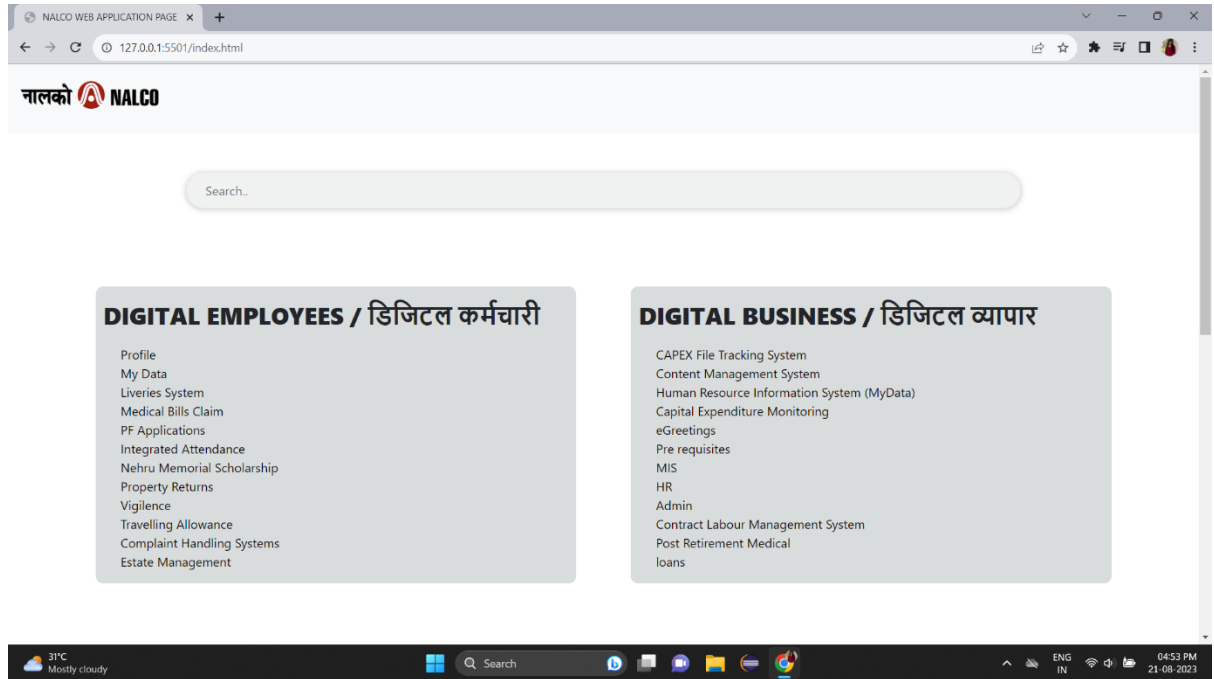
Recognizing the importance of mobile devices in today's digital landscape, the website was developed with a responsive design. This means that the website adapted seamlessly to different screen sizes, ensuring optimal viewing and functionality across various devices,

including desktops, laptops, tablets, and smartphones. Responsive design contributed to a consistent and user-friendly experience regardless of the device being used.

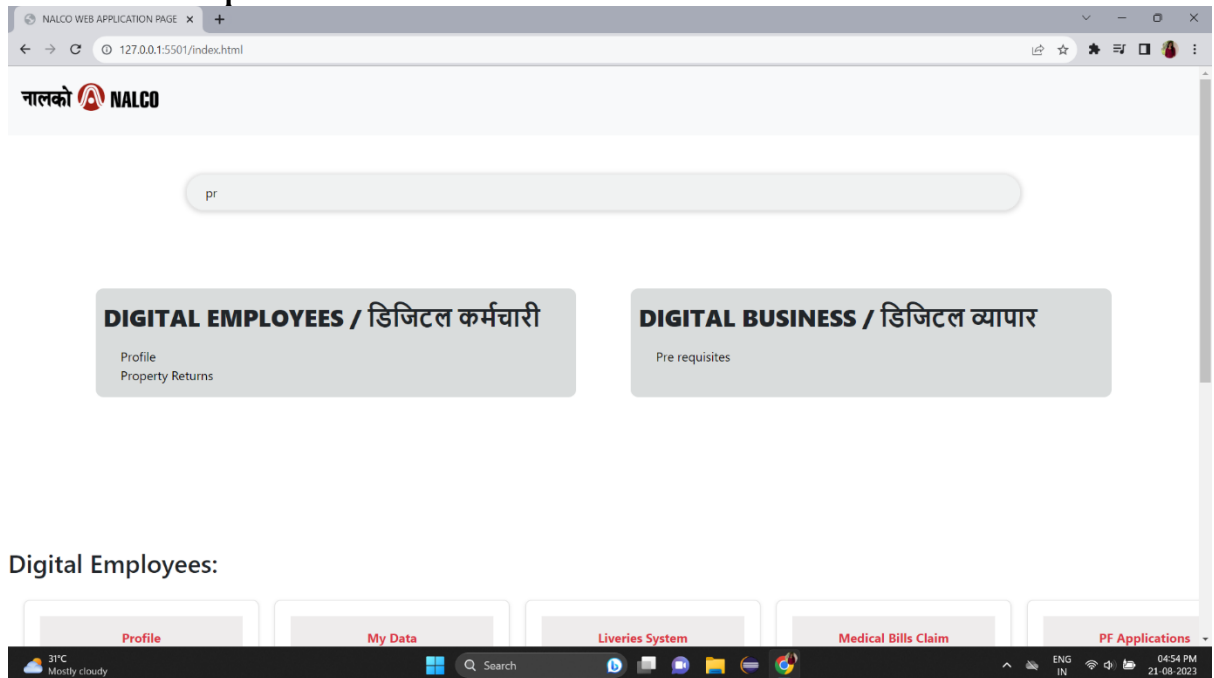
The goal was to enhance information access and facilitate a positive and seamless browsing experience within the organization.

Appendices (Design):

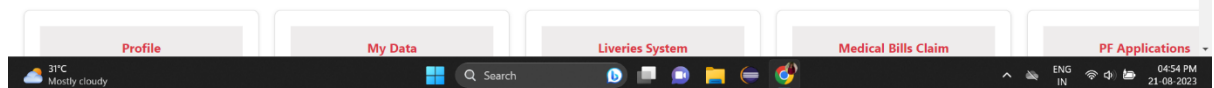
● Main Menu:



● Search option:

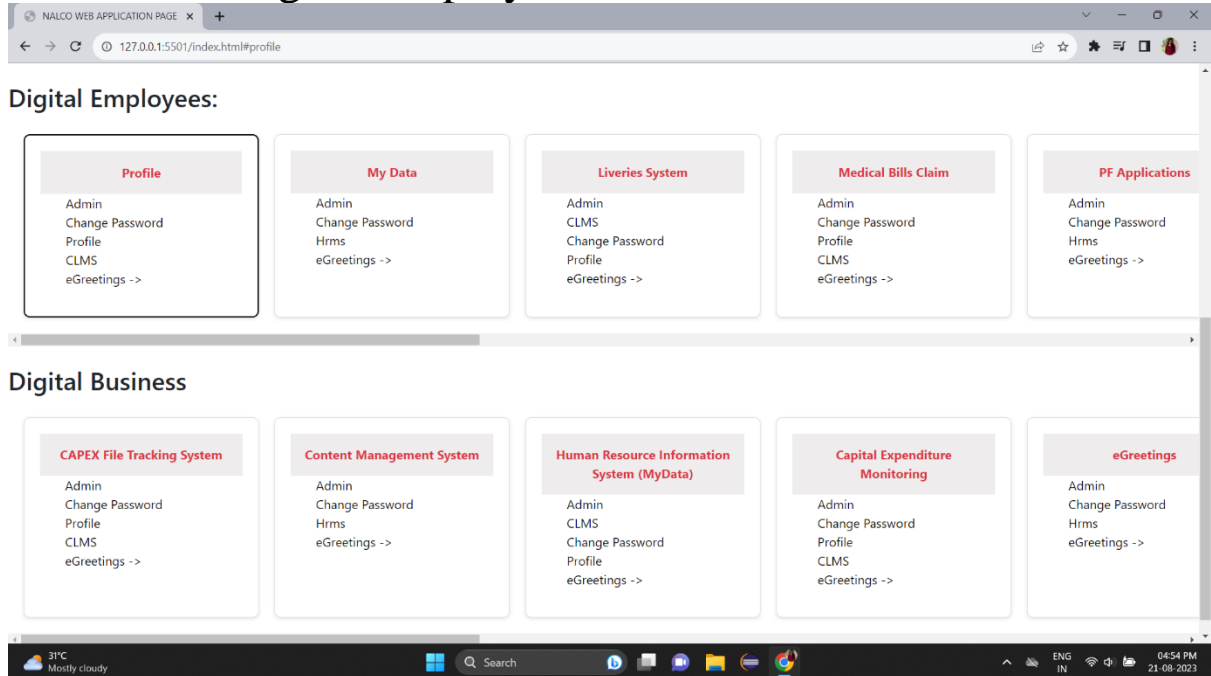


Digital Employees:

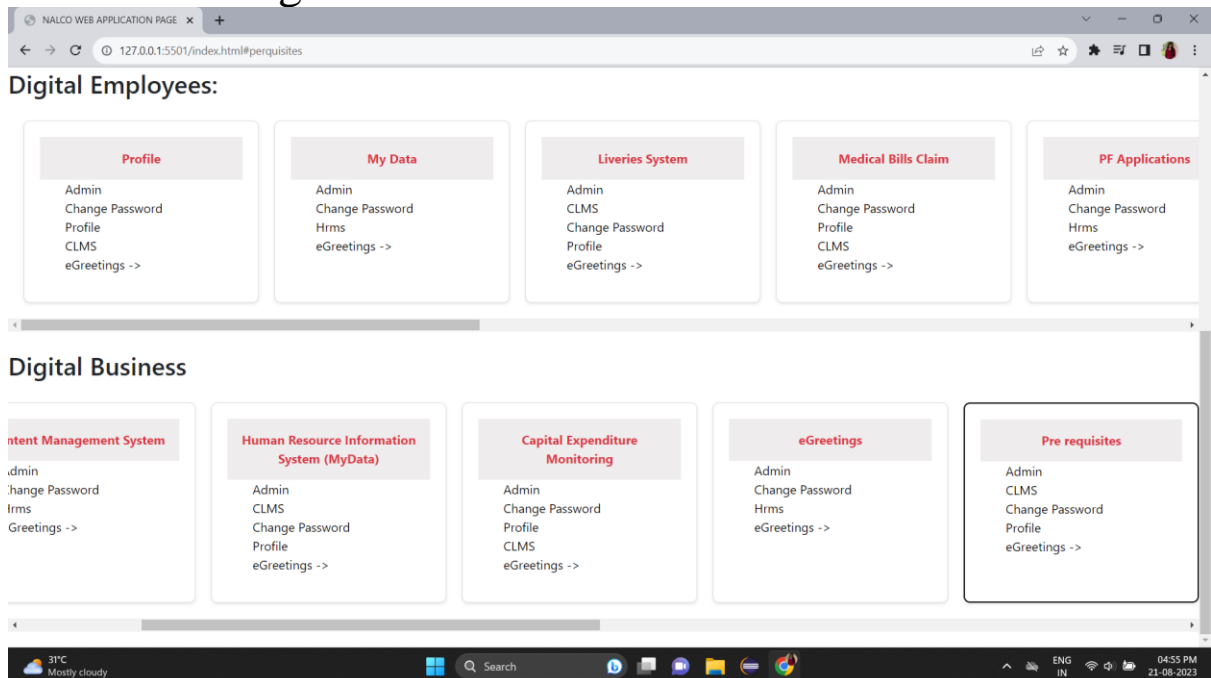


- Sub-menu (with highlighted div & horizontal scrolls for each section):

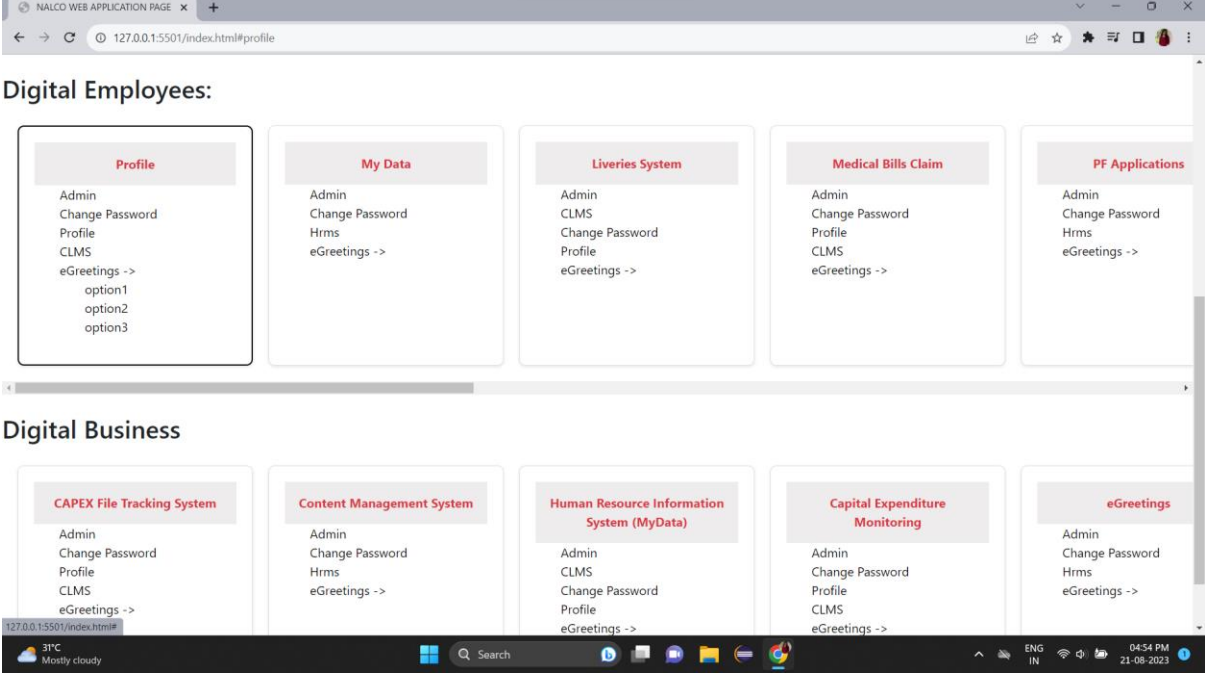
○ For Digital Employees:



○ For Digital Business:



● Additional menu (in sub-menu):



User Manual:

There is no prior installation step. One need to install live server extension in VS Code which can then be used to run the live web page on local host.

While running, it should be ensured that the bootstrap and jQuery import links are mentioned clearly.

Bootstrap:

```
<link  
href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.min.css"  
rel="stylesheet" integrity="sha384-  
9ndCyUaIbzAi2FUVXJi0CjmCapSmO7SnpJef0486qhLnuZ2cdeRhO02iuK6F  
UUVM" crossorigin="anonymous">
```

```
<script  
src="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/js/bootstrap.bundle.min.j  
s" integrity="sha384-  
MrcW6ZMFYlzcLA8Nl+NtUVF0sA7MsXsP1UyJoMp4YLEuNSfAP+JcXn/t  
WtIaxVXM" crossorigin="anonymous"></script>
```

jQuery:

```
<script  
src="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/js/bootstrap.bundle.min.j  
s" integrity="sha384-  
MrcW6ZMFYlzcLA8Nl+NtUVF0sA7MsXsP1UyJoMp4YLEuNSfAP+JcXn/t  
WtIaxVXM" crossorigin="anonymous"></script>
```