A
Project Report
On
"Admission Portal"

Prepared by

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Under the guidance of

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A Report Submitted to

Charotar University of Science and Technology

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4th Sem Project-I

Submitted at

Department of Information Technology

Chandubhai S Patel Institute of Technology(CSPIT)

Faculty of Technology & Engineering (FTE), CHARUSAT

At: Changa, Dist: Anand – 388421

April 2024

CHARUSAT
CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

CERTIFICATE

This is to certify that the report entitled "**Charusat Admission Portal**" is a bonafied work carried out by **Jiwans Oza (D23IT175)** under the guidance and supervision of **Prof. Hemant Yadav and Prof. Pavitra Modi** for the subject **IT-266** of 4th Semester of Bachelor of Technology in **CSPIT** at Faculty of Technology & Engineering – CHARUSAT, Gujarat.

To the best of my knowledge and belief, this work embodies the work of candidate himself, has duly been completed, and fulfills the requirement of the ordinance relating to the B.Tech. Degree of the University and is up to the standard in respect of content, presentation and language for being referred to the examiner.

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DECLARATION BY CANDIDATE

We, collectively as a team, hereby affirm that the project report titled **Charusat Admission Portal '** submitted by us to the Chandubhai S Patel Institute of Technology , Changa, as part of the requirements for the degree of **B.Tech** in Information Technology from the Department of Information Technology , FTE/Charusat, represents our joint endeavour under the guidance of **Prof. Hemant Yadav and Prof Pavitra Modi**. We confirm that the content presented in this report is original and has not been previously submitted for any academic qualification within this institute or elsewhere. This work reflects our collective commitment to academic integrity and innovation in the field of Information Technology.

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2. Mehul Rathva (D23IT173)
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ABSTRACT

The Admission Portal for CHARUSAT represents a pioneering web-based solution designed to revolutionize the admission process for Charotar University of Science and Technology (CHARUSAT). Developed using Laravel technology, a robust PHP framework, this portal aims to streamline and automate various stages of the admission cycle. Its user-friendly interface caters to both prospective students and administrators, offering an intuitive experience across devices. The primary goal is to digitize and simplify tasks such as application submission, document verification, fee payment, and merit list generation. Applicants can register, select programs, submit documents, and track their application status seamlessly. Integration with secure payment gateways facilitates online fee transactions, enhancing convenience and efficiency. Administrators benefit from a comprehensive dashboard providing insights into application statistics, fee collection, and other key metrics. Automated email notifications keep applicants informed about updates and deadlines. The implementation of this portal not only enhances operational efficiency and reduces manual effort but also ensures transparency and fairness in the admission process. Leveraging Laravel technology ensures scalability, security, and maintainability, positioning the Admission Portal for CHARUSAT as a valuable asset in the university's digital ecosystem.

ACKNOWLEDGEMENT

We extend our heartfelt gratitude to all those who contributed to the development of the Admission Portal for CHARUSAT using Laravel technology. We express our sincere appreciation to the faculty and staff of Charotar University of Science and Technology (CHARUSAT) for their invaluable support and guidance throughout this endeavor. Special thanks to our project supervisor for their mentorship and insights that shaped the direction of the project. We are also grateful to the students who participated in user testing and provided valuable feedback for improvement. Additionally, we acknowledge the open-source community for their contributions, which enriched our development process. Lastly, we would like to thank our friends and family for their encouragement and understanding during the course of this project. Their unwavering support kept us motivated during challenging times. This project would not have been possible without the collective efforts of everyone involved, and for that, we are truly grateful.

-Kunj Mori (D23IT185)
-Jiwans Oza (D23IT175)
-Mehul Rathva (D23IT185)

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CHAPTER 1: INTRODUCTION

❖ PROJECT OVERVIEW

The CHARUSAT Admission Portal is a pioneering project aimed at modernizing the university admission processes through innovative technology. By harnessing the power of Laravel, a robust PHP framework, this project seeks to create a seamless, transparent, and user-friendly platform for prospective students and administrators.

At its core, the CHARUSAT Admission Portal revolutionizes traditional admission procedures by introducing a digitized and centralized approach. Through Laravel technology, the portal ensures efficient management of admission-related tasks, from application submission to enrollment, streamlining the entire admission lifecycle.

To enhance security and reliability, the project implements robust authentication mechanisms and data encryption protocols within the Laravel framework. This ensures the integrity and confidentiality of sensitive admission data, safeguarding the interests of both applicants and the university.

User experience is prioritized in the CHARUSAT Admission Portal, with intuitive interfaces and responsive design elements tailored to the needs of diverse users. Applicants can easily navigate through the portal, submit applications, track their admission status, and complete necessary procedures with ease, enhancing accessibility and convenience.

Transparency and accountability are central to the CHARUSAT Admission Portal, with real-time monitoring and auditability features providing visibility into admission statistics, application progress, and merit list generation. This fosters trust among stakeholders and ensures fairness in the admission process.

Inclusivity and scalability are key principles of the CHARUSAT Admission Portal, accommodating a wide range of applicants and admission scenarios. Whether it's undergraduate programs, postgraduate courses, or specialized programs, the portal adapts seamlessly to various admission contexts, ensuring a consistent and reliable experience for all users.

In summary, the CHARUSAT Admission Portal developed in Laravel offers a sophisticated yet user-friendly solution for managing university admissions, empowering prospective students and administrators to engage in the admission process with confidence and efficiency.

❖ OBJECTIVE

The primary goal of the CHARUSAT Admission Portal project is to modernize and streamline the university admission process through the implementation of cutting-edge technology, specifically Laravel.

Digitization of Admission Procedures: The project aims to digitize and centralize the entire admission process, from application submission to enrollment, using the Laravel framework. This will eliminate manual paperwork and streamline administrative tasks for both applicants and university staff.

Enhanced Security and Integrity: Utilizing Laravel's built-in security features and encryption protocols, the project seeks to enhance the security and integrity of admission data, safeguarding sensitive information against unauthorized access and manipulation.

Improved User Experience: By prioritizing user experience, the project aims to develop intuitive interfaces and responsive design elements within the CHARUSAT Admission Portal. This will ensure that applicants can easily navigate the portal, submit applications, and track their admission status with minimal effort.

The overarching objective of the CHARUSAT Admission Portal project is to provide a secure, transparent, and user-friendly platform for managing university admissions. By empowering both applicants and administrators with advanced technology solutions, the project aims to enhance efficiency, transparency, and confidence in the admission process at CHARUSAT.

❖ SCOPE

The objective of the project is to design, develop, and implement an advanced admission portal for Charotar University of Science and Technology (CHARUSAT) using Laravel technology. The portal aims to modernize and streamline the university admission process, ensuring security, transparency, and user-friendliness.

Potential Problems:

- **Technical Challenges:** Complexities in Laravel development and integration may pose technical hurdles, requiring expertise and troubleshooting.
- **Security Considerations:** Ensuring the security and integrity of admission data against cyber threats and vulnerabilities.
- **User Adoption:** Encouraging user acceptance and adoption of the admission portal through effective communication, training, and support initiatives.

The scope of the project encompasses the design, development, implementation, and deployment of a secure, transparent, and user-friendly admission portal for CHARUSAT, addressing the needs of stakeholders and enhancing the efficiency and effectiveness of the admission process.

❖ TOOLS & TECHNOLOGY

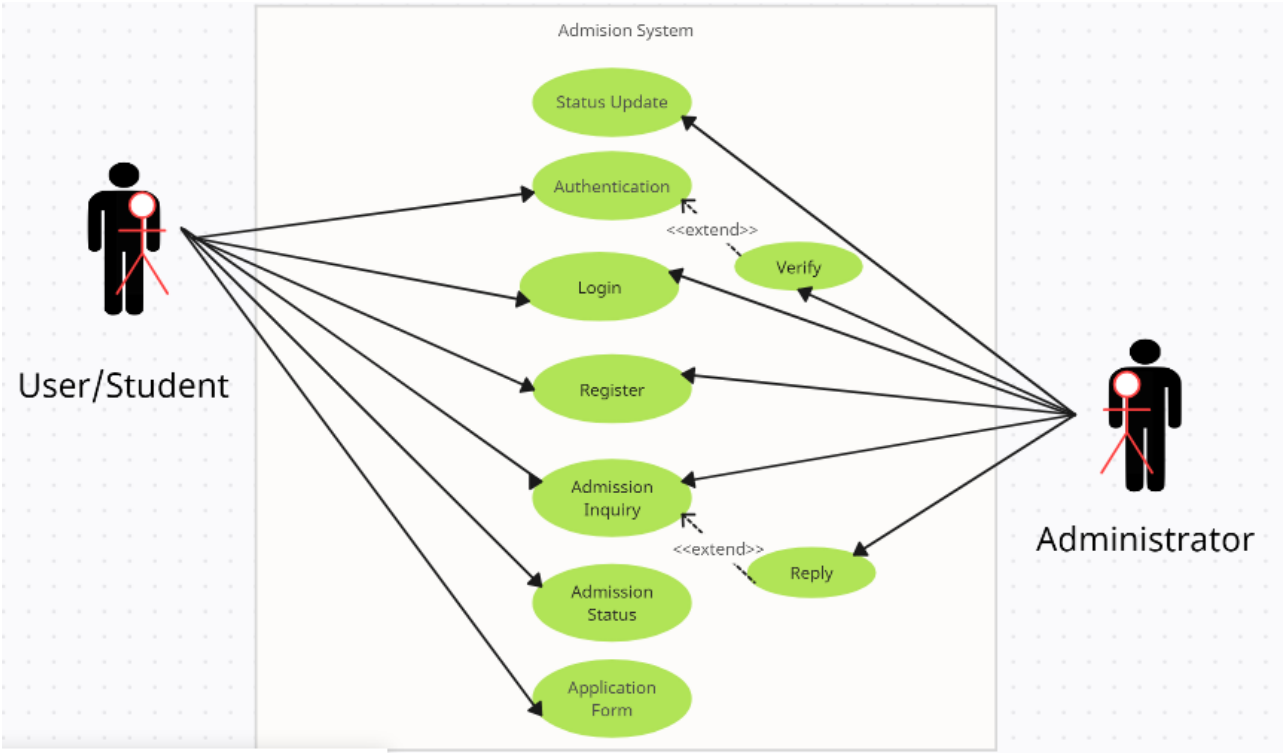
- Visual Studio Code
- MySQL
- XAMPP Control Panel
- Composer
- Laravel framework of PHP
- PHP 1.25, Laravel 10x

CHAPTER 2: STUDY REQUIREMENT STUDY

❖ USER CHARACTERISTICS

- **End Users:** Prospective students and applicants who use the CHARUSAT Admission Portal to apply, track their status, and complete admission procedures. They seek admission to various programs offered by CHARUSAT.

- **Administrator:** Manages the CHARUSAT Admission Portal, with administrative privileges. Responsibilities include managing candidate profiles, scheduling events, and processing requests. Ensures smooth portal operation and addresses user inquiries.3.1.1 Use Case Diagram



(FIG. 2.1 Use Case Diagram)

❖ HARDWARE AND SOFTWARE REQUIREMENTS

- **Hardware Specification**
  1. **Server Specification**
     - Processor: Dual Intel Xeon CPUs (core count to be determined based on anticipated load)
     - RAM: 8GB DDR4 ECC Registered Memory (expandable as needed)
     - Storage: 256GB NVMe SSD for OS and applications, 1TB SAS HDD for data storage
     - Network Interface: Dual-port Gigabit Ethernet NIC
     - Redundancy: Redundant power supplies, hot-swappable components
     - Form Factor: 1U rack-mountable chassis
  2. **Client Specifications**
     - Device Type: Desktop Computer or Laptop
     - Operating System: Windows 10, macOS, or Linux (Ubuntu)
     - Web Browser: Google Chrome, Mozilla Firefox, Safari, or Microsoft Edge
     - Processor: Intel Core i5 or AMD Ryzen 5 (or equivalent)
     - RAM: 8GB DDR4 memory
     - Storage: 256GB SSD or higher for faster boot and application loading times
     - Display: Full HD (1920x1080) resolution monitor or laptop screen
     - Network Interface: Ethernet LAN port or Wi-Fi connectivity
     - Input Devices: Keyboard and Mouse or Touchpad
- **Software Specification**
  1. **Operating System:**
     - Database: MySQL
     - Client Laptop/PC: Windows, Linux.
  2. **Web Development Framework:**
     - Framework: Laravel
     - Backend: PHP, MySQL
     - Frontend: HTML, CSS
  3. **Database Management System (DBMS):**
     - Database**:** MySQL
  4. **Authentication and Security:**
     - Laravel Authentication Scaffolding

CHAPTER 3: SYSTEM ANALYSIS

❖ STUDY OF PROPOSED SOLUTION

In response to the complexities and inefficiencies of traditional admission processes, the proposed CHARUSAT Admission Portal seeks to modernize and streamline the admission process through innovative technology solutions. The primary objective of the portal is to ensure transparency, efficiency, and accessibility in managing university admissions.

The system architecture comprises several key components, including a centralized web-based platform for application submission, document verification, and admission status tracking, as well as backend modules for processing admission requests and managing data storage.

To realize the proposed solution, a comprehensive technology stack is employed, consisting of backend technologies such as the Laravel PHP framework, frontend technologies including HTML5, CSS3, and JavaScript with Vue.js for dynamic elements, and a database management system such as MySQL.

The implementation plan involves iterative phases, including requirements gathering, system design, development, testing, deployment, and training/support. Throughout these phases, a focus is placed on ensuring accuracy in application processing, robust security measures to safeguard sensitive admission data, and usability of the portal interface for an intuitive user experience.

Evaluation criteria for the portal include accuracy in application processing, security against unauthorized access and data breaches, and usability of the interface for applicants and administrators. These criteria are assessed through rigorous testing and evaluation processes, including functional testing, user acceptance testing, and security auditing.

In conclusion, the CHARUSAT Admission Portal represents a significant advancement in managing university admissions. By leveraging modern technologies and best practices in web development, the portal aims to enhance efficiency, transparency, and user satisfaction in the admission process, ultimately contributing to the success of CHARUSAT and its stakeholders.

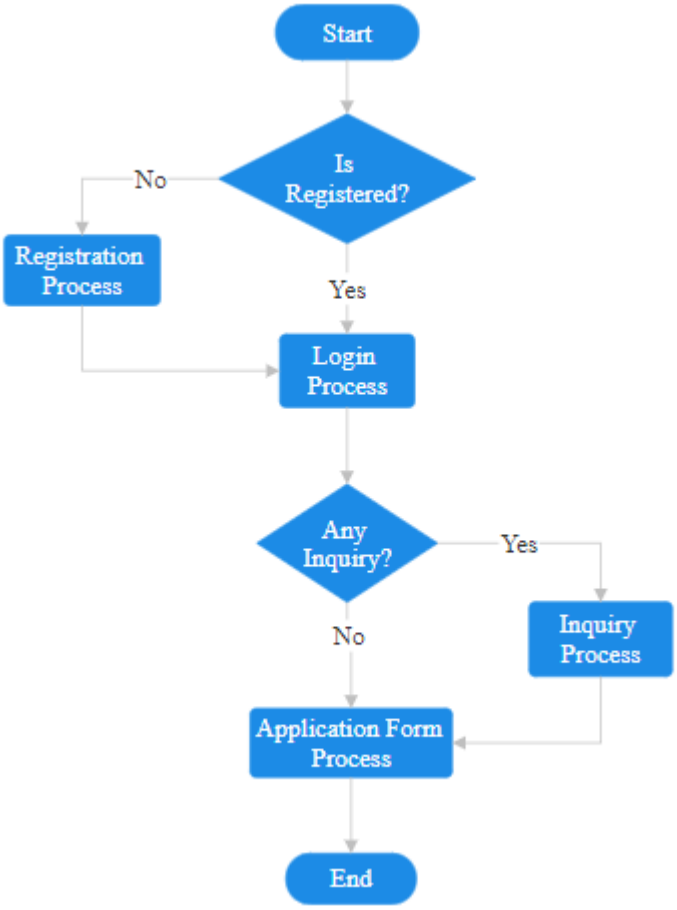
❖ REQUIREMENTS OF PROPOSED SYSTEM

○ Functionality of System:

- Login Module
- Register Module
- Admin-Side Module
- Inquiry Module

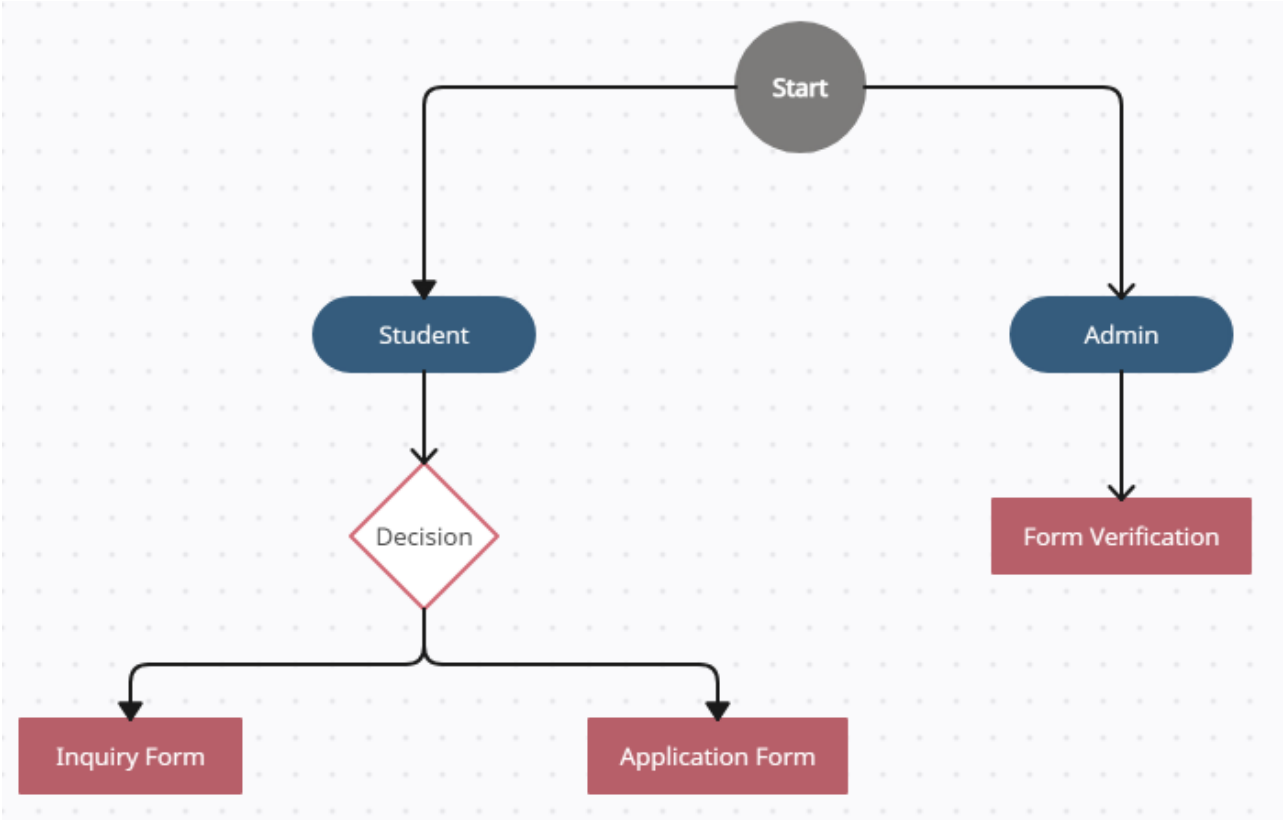
❖ SYSTEM DIAGRAMS

○ SYSTEM WORKFLOW



(FIG. 3.1 SYSTEM WORKFLOW)

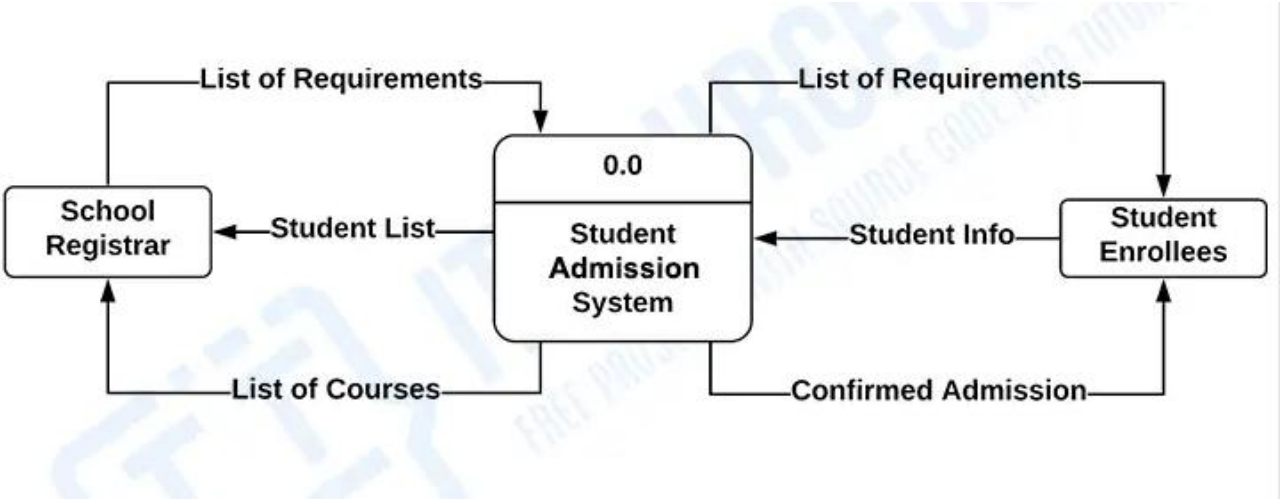
- **ACTIVITY DIAGRAM**



(FIG. 3.2 ACTIVITY DIAGRAM)

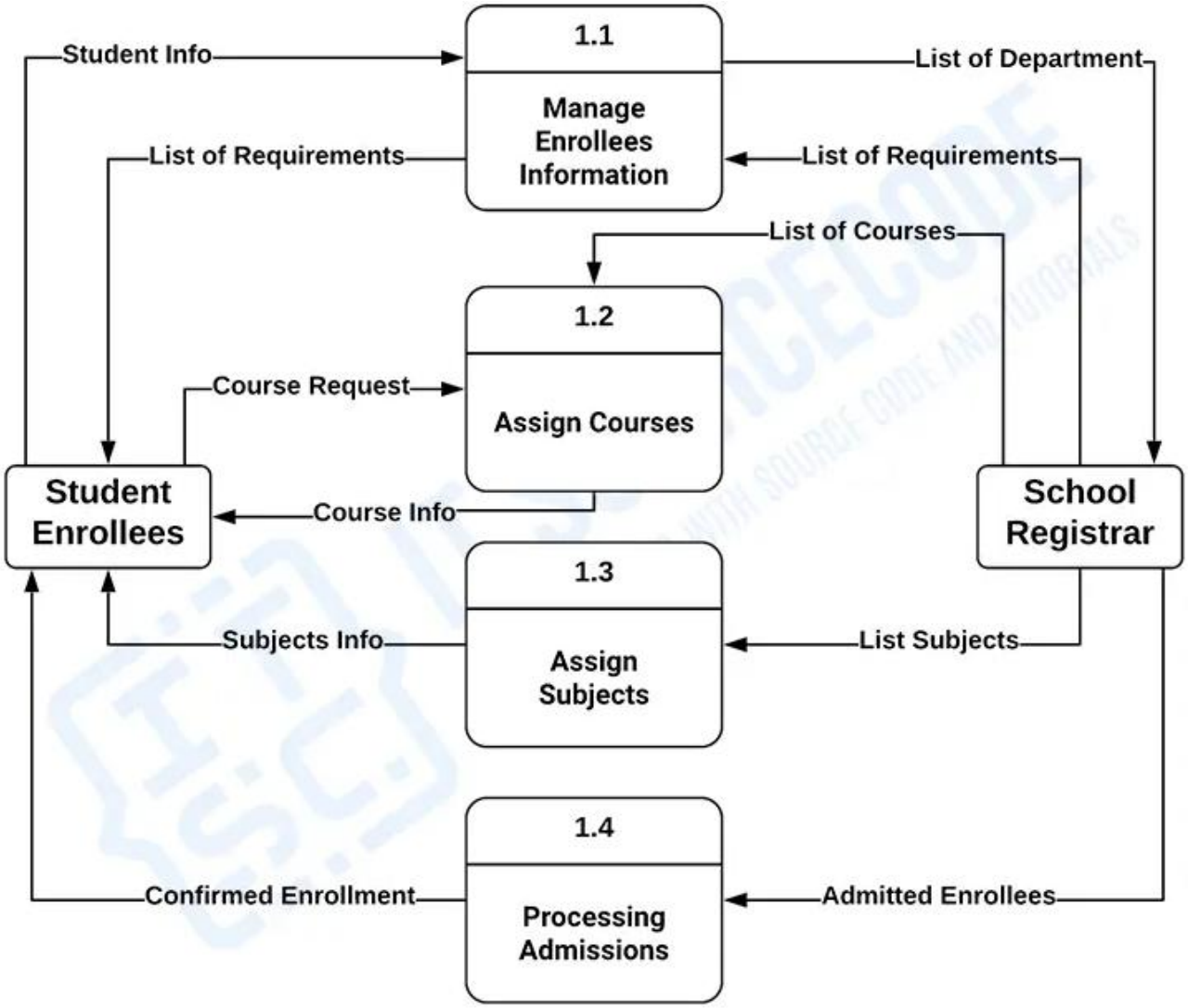
- **DATA FLOW DIAGRAM – DFD**

  - **LEVEL 0 DFD**



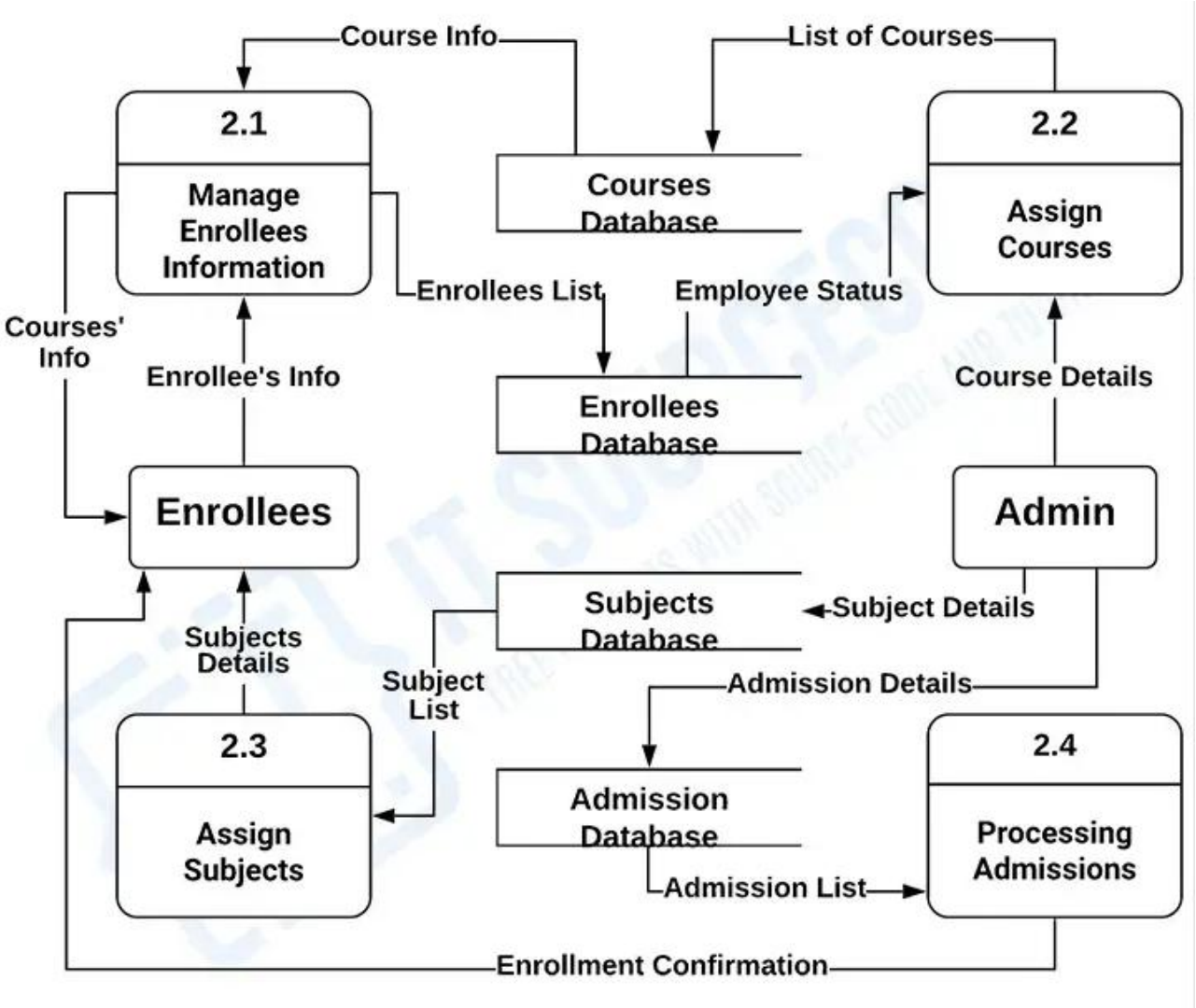
(FIG. 3.3 LEVEL 0 DFD)

- **LEVEL 1 DFD**



(FIG. 3.4 LEVEL 1 DFD)

- **LEVEL 2 DFD**



(FIG. 3.5 LEVEL 2 DFD)

❖ DATA DICTIONARY

(Table 3.1 User Table)

FieldName	Datatype	Field Length	Constraint
User_ID	int	10	Not Null
Name	Varchar	255	Not Null
E-Mail Adderss	Varchar	255	Not Null
Username	Varchar	255	Not Null
Password	Varchar	10	Not Null
Role	Smallint	6	Selection

(Table 3.2 Profile Table)

FieldName	Datatype	Field Length	Constraint
Sudent_ID	Bigint	12	Not Null
Name	Varchar2	255	Not Null
email	Varchar	255	Not Null
mobile	Varchar	255	Not-Null
Alternate_mobile	Varchar	255	NULL
State	Varchar	255	NULL
City	Varchar	255	NULL
Course	Varchar	255	NULL
Specialization	Varchar	255	NULL

(Table 3.3 Institutes Table)

FieldName	Datatype	Field Length	Constraint
Institutes_ID	Varchar	255	Not Null
Institutes_Name	Varchar	12	Selection

(Table 3.3 Faculty Table)

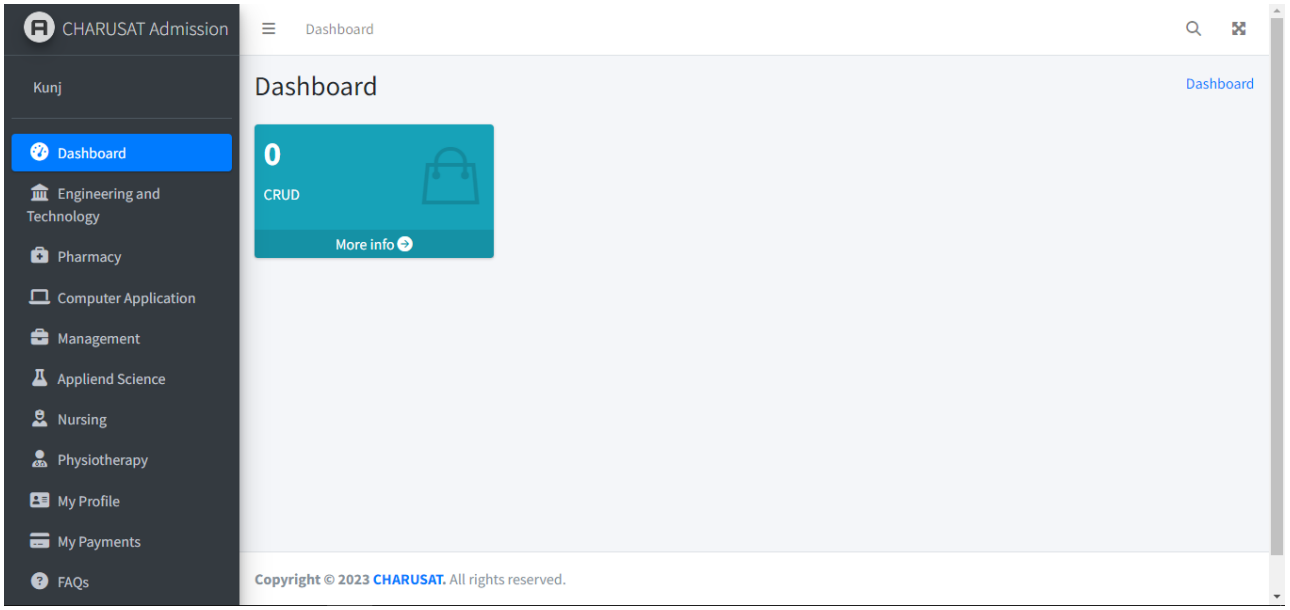
FieldName	Datatype	Field Length	Constraint
Facultys_ID	Varchar	255	Primary Key
Facultys_Name	Varchar	12	Selection

(Table 3.4 Course Table)

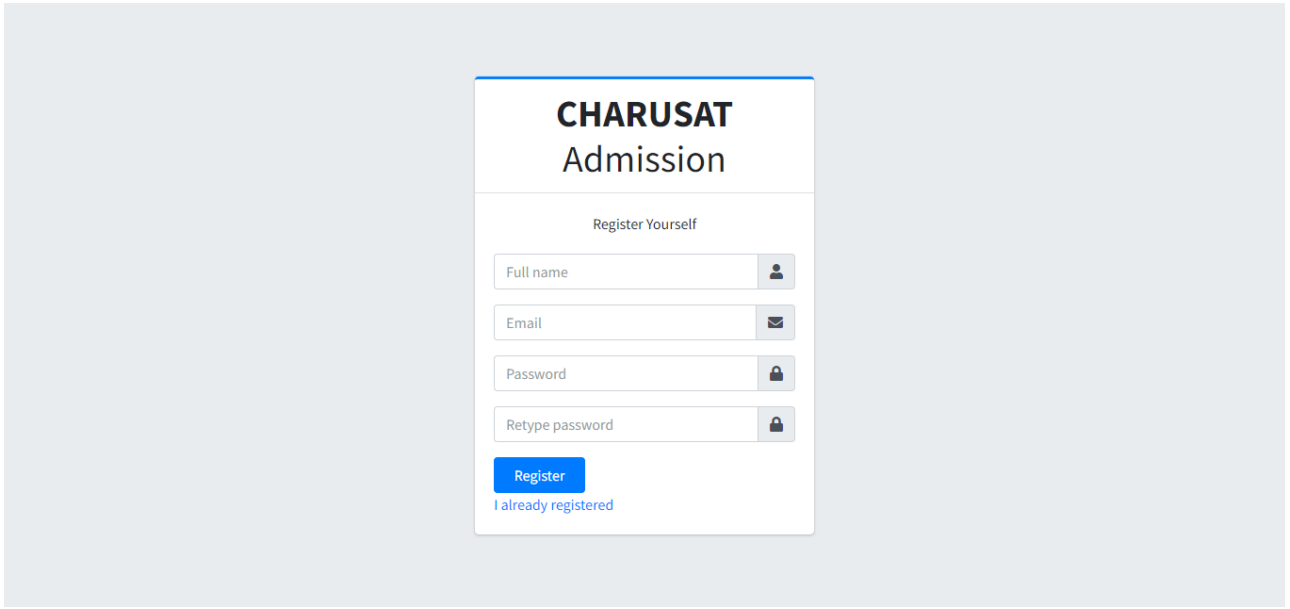
FieldName	Datatype	Field Length	Constraint
Course_ID	Varchar	255	Foreign Key
Course_Name	Varchar	255	Not Null

CHAPTER 4: SYSTEM DESIGN

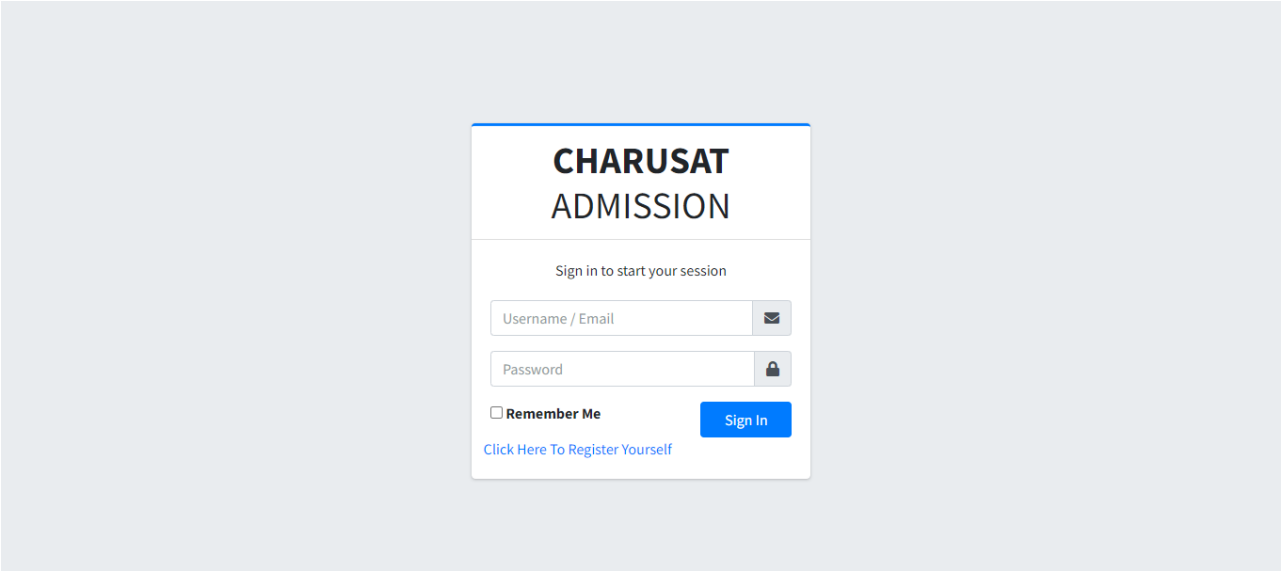
❖ Project LAYOUTS:



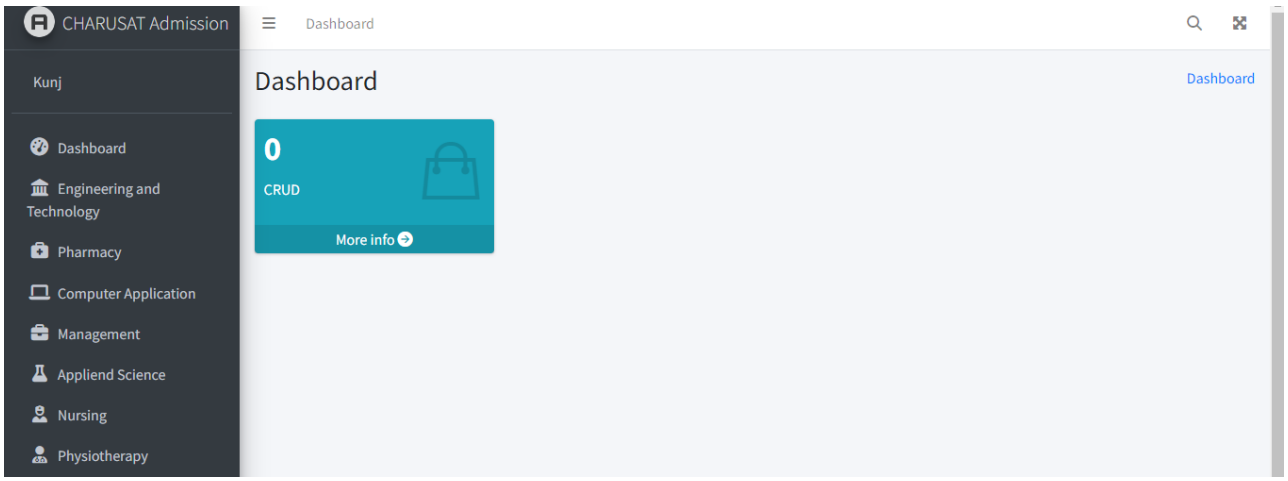
(FIG. 4.1 Main Page)



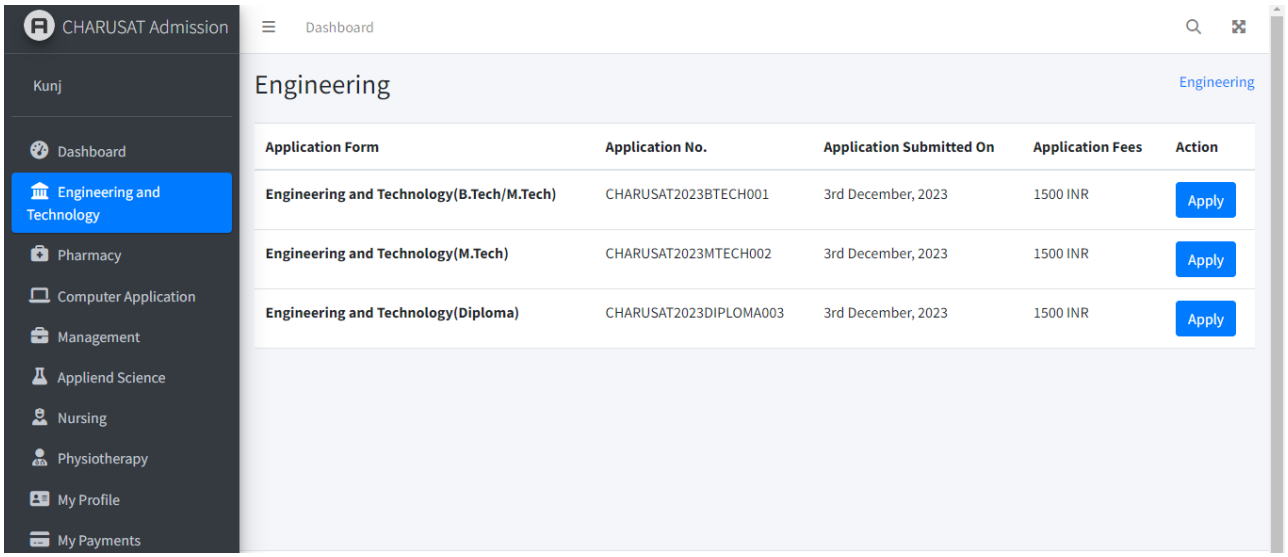
(FIG. 4.2 Registration Page)



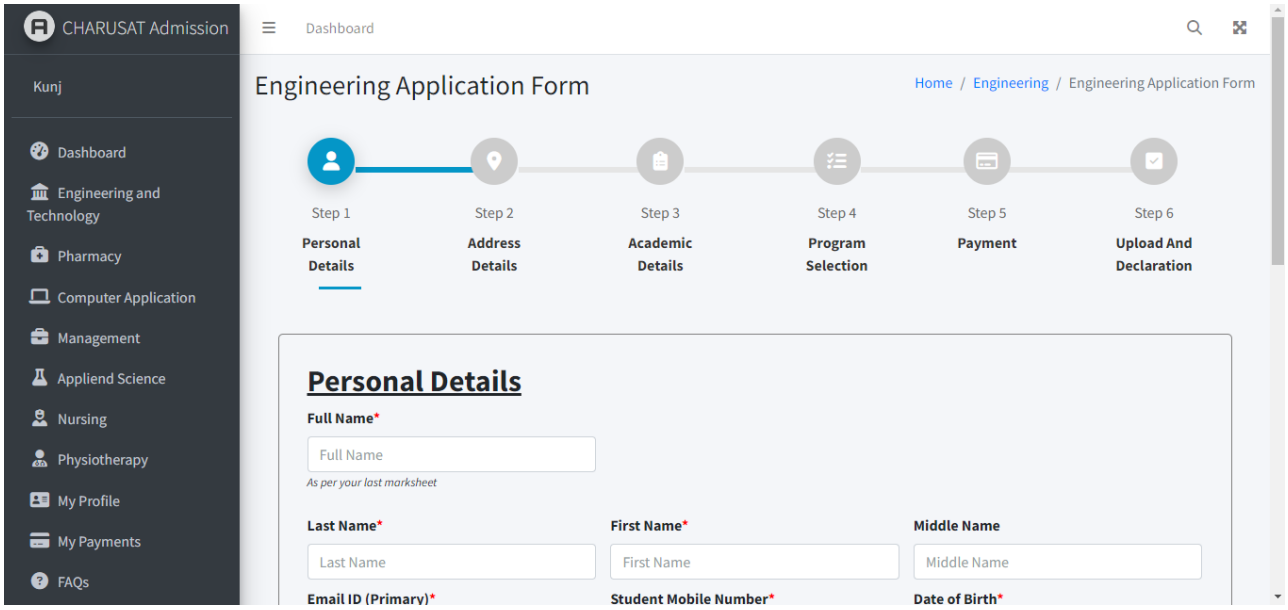
(FIG. 4.3 Login Page)



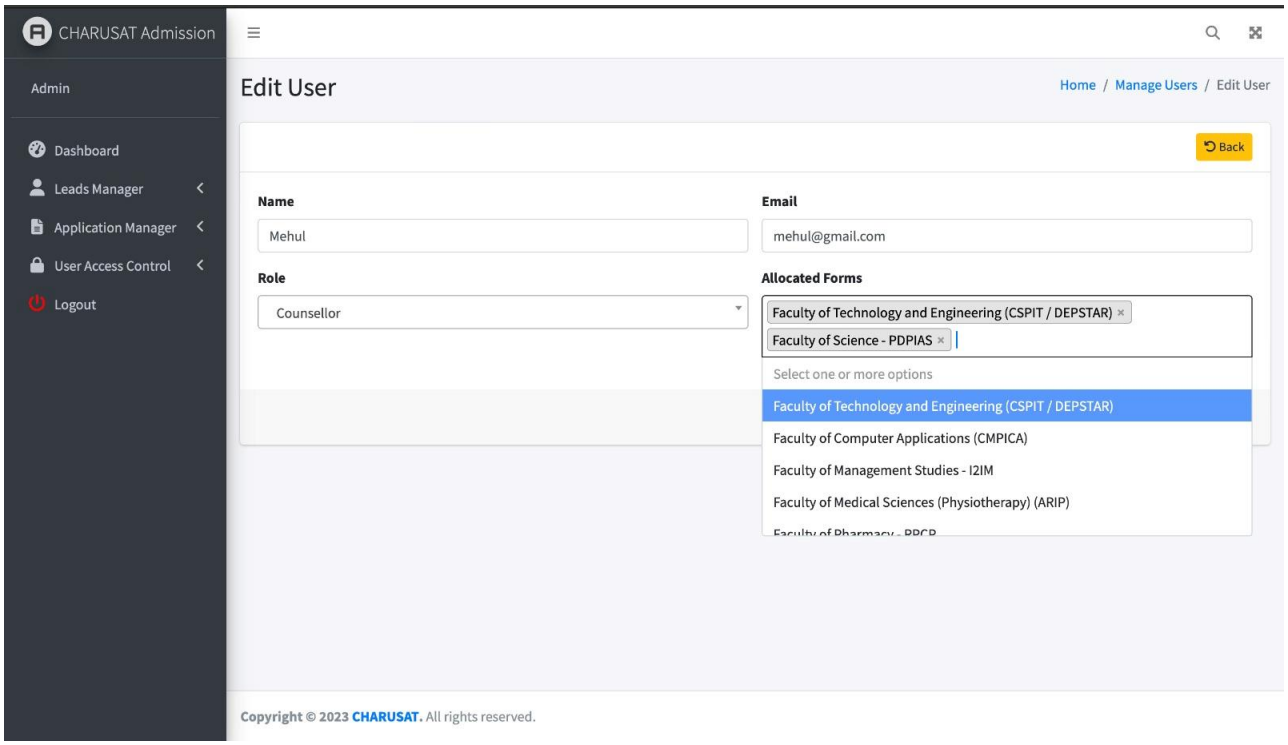
(FIG. 4.4 Institutes Page)



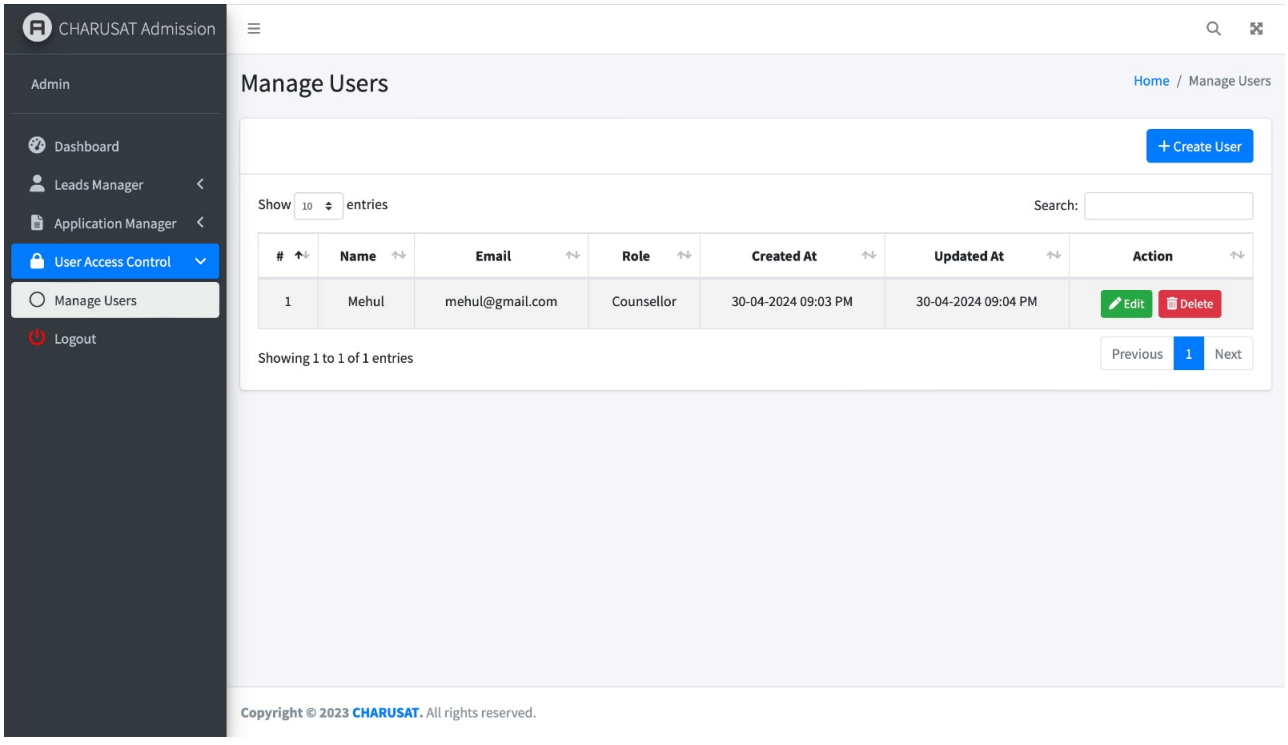
(FIG. 4.5 Course Page)



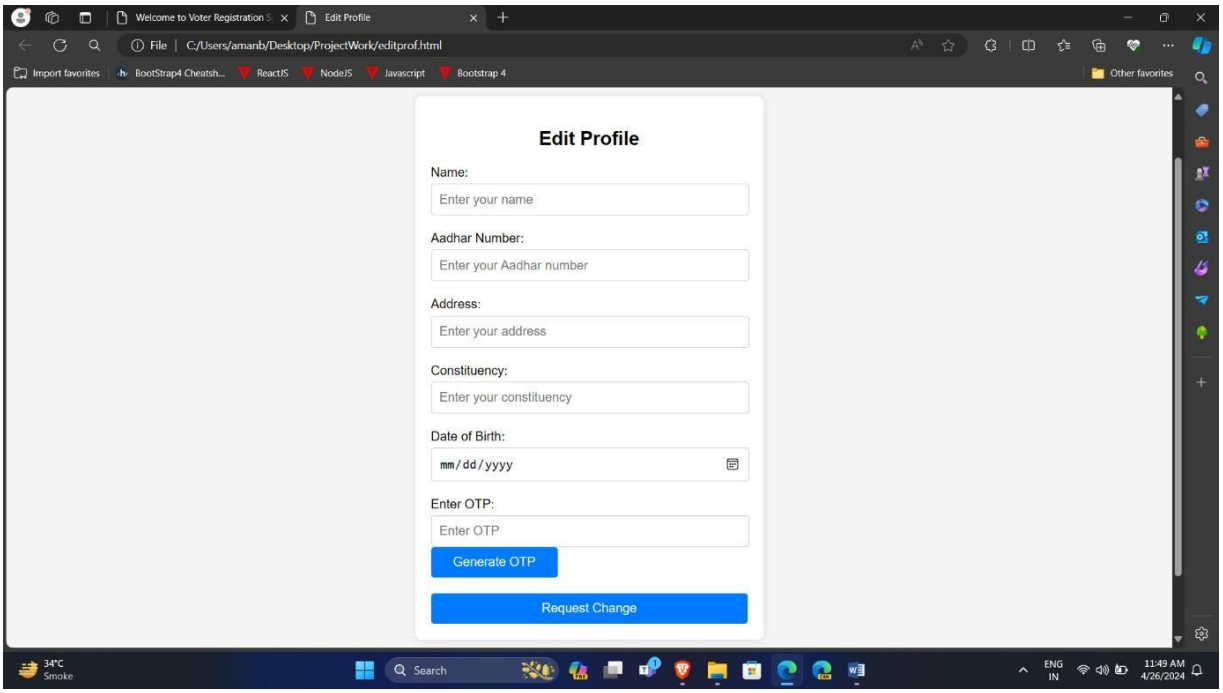
(FIG. 4.6 Application Page)



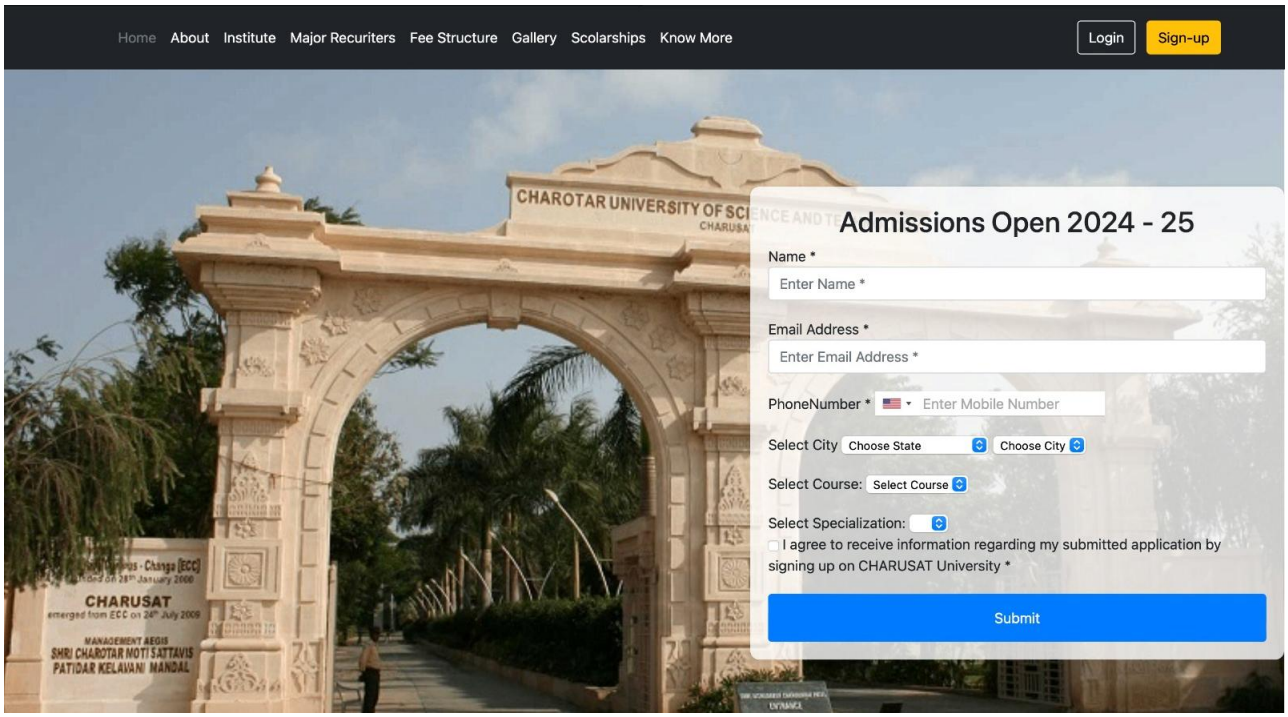
(FIG. 4.7 Admin Page)



(FIG. 4.8 Admin Management Page)



(FIG. 4.9 Edit Profile Page)



(FIG. 4.10 Inquiry FormPage)

CHAOTER 5: CONCLUSION

❖ SELF ANALYSIS OF PROJECT

Reflecting on our group's collaboration in developing the CHARUSAT Admission Portal, I appreciate the collective effort and diverse expertise that each team member brought to the project. Collaborating on a project of this scale required effective communication, coordination, and delegation of tasks, which we managed to achieve through regular meetings and clear assignment of responsibilities. While we encountered challenges such as integrating complex technologies and ensuring compliance with university admission policies, our teamwork and problem-solving skills enabled us to overcome these obstacles and deliver a robust admission platform.

Moving forward, I recognize the importance of ongoing collaboration, learning from our experiences, and fostering a supportive team environment to drive future success in similar endeavors. By continuing to leverage our collective strengths and maintaining open lines of communication, we can further enhance the CHARUSAT Admission Portal and ensure its continued effectiveness in serving the needs of our users and stakeholders.

❖ PROBLEM ENCOUNTERED AND THEIR SOLUTIONS

- **Integration Complexity:** Integrating various technologies, such as user authentication through face recognition and ensuring compatibility with blockchain-based systems, posed a significant technical challenge. Solution: We tackled this challenge by breaking down the integration process into smaller, manageable components. Thorough research was conducted to understand the intricacies of each technology, and we utilized external resources such as documentation, tutorials, and expert consultations to overcome technical hurdles. By dividing the task and leveraging available resources, we successfully integrated the necessary components into the CHARUSAT Admission Portal.
- **User Acceptance:** Convincing stakeholders and users to trust and adopt a new admission portal presented challenges due to concerns about security, reliability, and familiarity with traditional admission procedures. Solution: Transparent communication and education initiatives were key to addressing stakeholders' concerns and building trust in the portal. We conducted user testing and solicited feedback to iteratively improve the user experience and address usability issues. By actively involving users in the development process and addressing their feedback, we ensured that the CHARUSAT Admission Portal meets the needs and expectations of its intended users.
- **Regulatory Compliance:** Ensuring compliance with data protection regulations, such as GDPR, particularly regarding the storage and processing of sensitive admission data, posed challenges. Solution: We conducted a thorough analysis of relevant regulations and implemented strict data protection measures within the portal. This included encryption, anonymization, and user consent mechanisms to safeguard sensitive information and ensure compliance with legal requirements. By prioritizing data privacy and implementing robust security measures, we ensured that the CHARUSAT Admission Portal adheres to regulatory standards and protects user privacy.

❖ SUMMARY

The CHARUSAT Admission Portal project represents a significant advancement in modernizing and optimizing the university admission process. By leveraging innovative technologies such as Laravel framework, HTML5, CSS3, and JavaScript, the portal ensures transparency, efficiency, and accessibility for prospective students and administrators alike.

Similar to "Decentralized Democracy," our project aims to revolutionize traditional processes by providing a user-friendly interface for application submission, document verification, and admission status tracking. Through secure data management and encryption protocols, the portal safeguards sensitive information and ensures compliance with regulatory standards.

Ultimately, the CHARUSAT Admission Portal empowers stakeholders with a seamless and efficient platform for managing university admissions, fostering trust and confidence in the admission process. By embracing technological advancements and best practices in web development, our project contributes to the advancement of academic institutions and enhances the overall experience for students and administrators.

- **REFERENCE:**
    - **GitHub**
    - **Laravel Documentation**
    - **Chat GPT**