DAYANANDA SAGAR UNIVERSITY

Devarakaggalahalli, Harohalli
Kanakapura Road,Bangalore South Dt,Ramanagara ,562112, Karnataka, India

Bachelor of Technology in
COMPUTER SCIENCE AND TECHNOLOGY

Full Stack Development (24CS2305)
Mini Project Report

(COLLEGE WEBSITE)

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DEPARTMENT OF
COMPUTER SCIENCE AND TECHNOLOGY,
SCHOOL OF ENGINEERING DAYANANDA SAGAR UNIVERSITY,
(2025-2026)

DAYANANDA SAGAR UNIVERSITY

SCHOOL OF ENGINEERING

Department of Computer Science and Technology

Devarakaggalahalli, Harohalli
Kanakapura Road, Ramanagara - 562112, Karnataka, India

CERTIFICATE

This is to certify that the Full Stack Development Mini Project titled **"College Website"** has been carried **Varun B S(ENG24CT0024), D Shivaramkrishna(ENG24CT0004)** and **Samrudh(ENG24CT0016)**, **Srajan(ENG24CT0004), Rajath(ENG25CT1001),**bonafide students of the **Third Semester, Bachelor of Technology in** Computer Science and Technology, School of Engineering, **Dayananda Sagar University, Bengaluru**.This project is submitted in partial fulfillment of the requirements for the award of the degree of **Bachelor of Technology (B.Tech.) in** Computer Science and Technology for the academic year **2025–2026**.

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Date:

Dr. SHAHINA PARVEEN M
Chairman CST
School of Engineering
Dayananda Sagar University

Date:

DECLARATION

We Varun B S(ENG24CT0024),D Shivaramkrishna(ENG24CT0004) and Samrudh(ENG24CT0016), Srajan(ENG24CT0004), Rajath(ENG25CT1001)**,** are students of Third semester B.Tech in Computer Science and Technology, at School of Engineering, Dayananda Sagar University, hereby declare that the Mini Project titled "College website" has been carried out by us and submitted in partial fulfilment for the award of degree in Bachelor of Technology in Computer Science and Technology during the academic year 2025-2026.

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D.SHIVARAMKRISHNA(ENG24CT00)

Signature

Place : Bangalore
Date :

ACKNOWLEDGEMENT

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Abstract

This project titled **"Dayananda Sagar University Information & Overview Portal"** is designed and developed to provide a centralized platform for students, parents, and other stakeholders to access complete and authentic information related to Dayananda Sagar University. The portal offers details about academic programs, courses offered, admissions, research activities, placements, campus facilities, and contact details. The aim is to create an easy-to-navigate, user-friendly, and responsive platform that enhances information accessibility and eliminates the difficulties faced while searching for university-related information across multiple sources. By using modern web technologies, the system provides an interactive and visually structured interface that improves user experience and communication between the university and the public. This project demonstrates a real-world application of full-stack development concepts and can be further enhanced with features such as automated enquiry systems, chatbot assistance, login access, and digital admission support.

GIT HUB REPOSITORY LINK: https://github.com/SHIVARAM264/university
GIT HUB DEPLOYMENT LINK: https://shivaram264.github.io/university/

CHAPTER 1 INTRODUCTION

This chapter presents the basic guidelines and context for the B. Tech Mini Project report. The project report is presented in several chapters, beginning with this Introduction and concluding with the Summary and Conclusions.

PROBLEM STATEMENT

Students, parents, and new applicants often face challenges while searching for accurate and complete information about university programs, facilities, and admission procedures. Existing sources are distributed across multiple pages or third-party sites, which may cause confusion, delay, or misinformation. Therefore, there is a need for a centralized university information portal that provides quick, organized, and reliable access to all academic and institutional details through a single interface.

- To develop a full-stack website portal that displays complete information about Dayananda Sagar University.
- To provide structured modules such as About University, Courses Offered, Admissions, Research, Placements, and Facilities.
- To enhance communication between students and university administration.
- To support future extensions like online applications, chatbot support, and student login.
- To build a responsive interface accessible across mobile, tablet, and desktop screens**.**

OVERVIEW OF CHAPTERS

Chapter 1: Introduction
Discusses background, purpose of the project, and objectives of the university portal.
Chapter 2: Literature Review
Details existing systems, comparison, and the need for an improved solution.
Chapter 3: System Analysis
Includes problem statement, existing system, proposed system, and feasibility study.
Chapter 4: System Design
Describes system architecture, UML diagrams, data flow diagrams, and interface design.
Chapter 5: System Implementation
Explains development tools, technologies used, and module descriptions.
Chapter 6: Testing and Results
Shows testing methods, output screens, and result analysis.
Chapter 7: Conclusion & Future Scope
Summarizes achievements and future enhancements.

CHAPTER 2 OVERVIEW OF PROJECT

1.PURPOSE AND GOALS

The purpose of the **"Dayananda Sagar University Information & Overview Portal"** is to provide a centralized, accessible, and user-friendly digital platform that allows students, parents, faculty, and external stakeholders to easily access complete and structured information about the university. The system enables quick navigation across academic programs, admissions, research activities, campus facilities, placements, and contact details, thereby improving communication and transparency.

The project goals are to:

1. **Centralize university information** into a single web portal that provides accurate and updated details about academic programs, departments, facilities, and institutional achievements.
2. **Simplify the admission-related process** by providing clear guidelines, academic calendar updates, application procedures, fee structures, and enquiry options
3. **Enhance accessibility** through a responsive interface that supports seamless usage across mobile, tablet, and desktop devices.
4. **Improve communication efficiency** by connecting students, parents, faculty, and administrative staff through contact forms and information modules.
5. **Provide a visually appealing and interactive user experience (UX)** using modern web design techniques and structured content layout.

1.2. TECHNOLOGIES USED

The project utilizes modern full-stack web development technologies to build an interactive and responsive university information portal. These technologies ensure optimized performance, easy scalability, and a seamless user experience across devices.

Tabel 2.1: Project Tech Stack and Description

TECH COMPONENT	**ROLE**	**SPECIFIC TECHNOLOGIES**
BACKEND	Server-side functionality, routing, handling data requests, form submissions, and API integration.	Node.js & Express.js
FRONTEND	User interface design, navigation, presenting university data, interactive components	HTML, CSS, JavaScript, React.js / Bootstrap
DATABASE	Storing program details, admission information, department data, placement stats, and contact queries.	MongoDB / MySQL
HOSTING & DEPLOYMENT	Hosting web pages and backend services publicly for access and execution	Vercel / Netlify / Render / AWS

CHAPTER 3 FUNCTIONAL REQUIREMENTS

The system must satisfy the following functional requirements:

1. **User Access (F1):** Users must be able to access the portal and navigate through different sections such as About University, Programs Offered, Admissions, Research, Placements, Facilities, and Contact information.
2. **Course & Department Information (F2):** The portal must display detailed information about all academic programs (UG, PG, PhD), including eligibility criteria, duration, curriculum highlights, and department details.
3. **Admission Information Module (F3):** The system must allow users to view admission procedures, application guidelines, fee structure, scholarship details, academic calendar, and important notifications.
4. **Search & Filter Feature (F4):** Users must be able to search and filter programs and information by category such as School/Department, Program Type (UG/PG), Stream, and Campus
5. **Placement & Career Information (F5):** The system must display placement statistics, partnered companies, internship opportunities, achievements, and training resources relevant to the university.
6. **Contact & Inquiry Submission (F6):** Users must be able to send inquiries or feedback through a contact form, providing name, email, phone, and message. Submissions must be saved and accessible for admin review.

Tabel 3.1: Functional Requirements Mapping

ID	Requirement Description	Corresponding Feature	User Role
F1	The system should provide a secure registration and login mechanism to ensure that only authorized users can access the platform.	User Authenti cation using JWT (JSON Web Token) for secure session handling	Student, Admin
F2	Users should be able to report lost or found items by entering details such as item name, description, location, and uploading an image.	Item Reporting	Student
F3	The system should automatically suggest possible matching items based on similarity of text description and attributes.	Smart Matching (Jaccard Similarit y)	Student
F4	Users should be able to search and filter items based on category, location, and keywords for quick access.	Search & Filter Modul	Student, Admin
F5	Ability to update the status of a reported item.	Item Status Update	Student

CHAPTER 4 CODE SNIPPETS

AI-based DSU Assistant, **Dark Mode**, **Direct LinkedIn/Instagram**

AI Chatbot / DSU Assistant Implementation

Dark/Light Theme Toggle Code

Navbar Social Media API integration

Relation to Project Topic

The code snippets included in this chapter demonstrate the implementation of the **extra smart features** that enhance the functionality of the DSU college website. These features improve usability, accessibility, and student engagement.

API CONFIGARATION

Endpoint	Method	Description	Authentication Required
/api/admin/items/:id/verify	PATCH	Verify an item	Yes (Admin only)
/api/admin/items/:id	DELETE	Delete an item	Yes (Admin only)


shivaram264.github.io/university/index.html
ACADEMIC CALENDAR FOR 2025-26 — CLICK HERE TO APPLY FOR OCT 2025 EXECUTIVE MBA BATCH. FOR PROGRAM DETAILS AND ADMISSION
Search
Search
DAYANANDA SAGAR UNIVERSITY
CAREERS
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Examination
News & Events
Newsletter
Alumni
Blog
Login
e-Brochure
NRI/FOREIGN ADMISSIONS - APPLY HERE
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INTERNATIONAL
RESEARCH
PLACEMENT
NAAC
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HOSTEL@HOROHALLI
CONTACT
Home
INDIA IS INVITING YOU
ADMISSIONS
OPEN FOR 2026-27
FOR NRI/FOREIGN NATIONALS
ENROLL
DSU Assistant
Ask me about DSU!
Hello! I'm your DSU Assistant. How can I help you today?
Admissions
Courses
Contact
Type your message...
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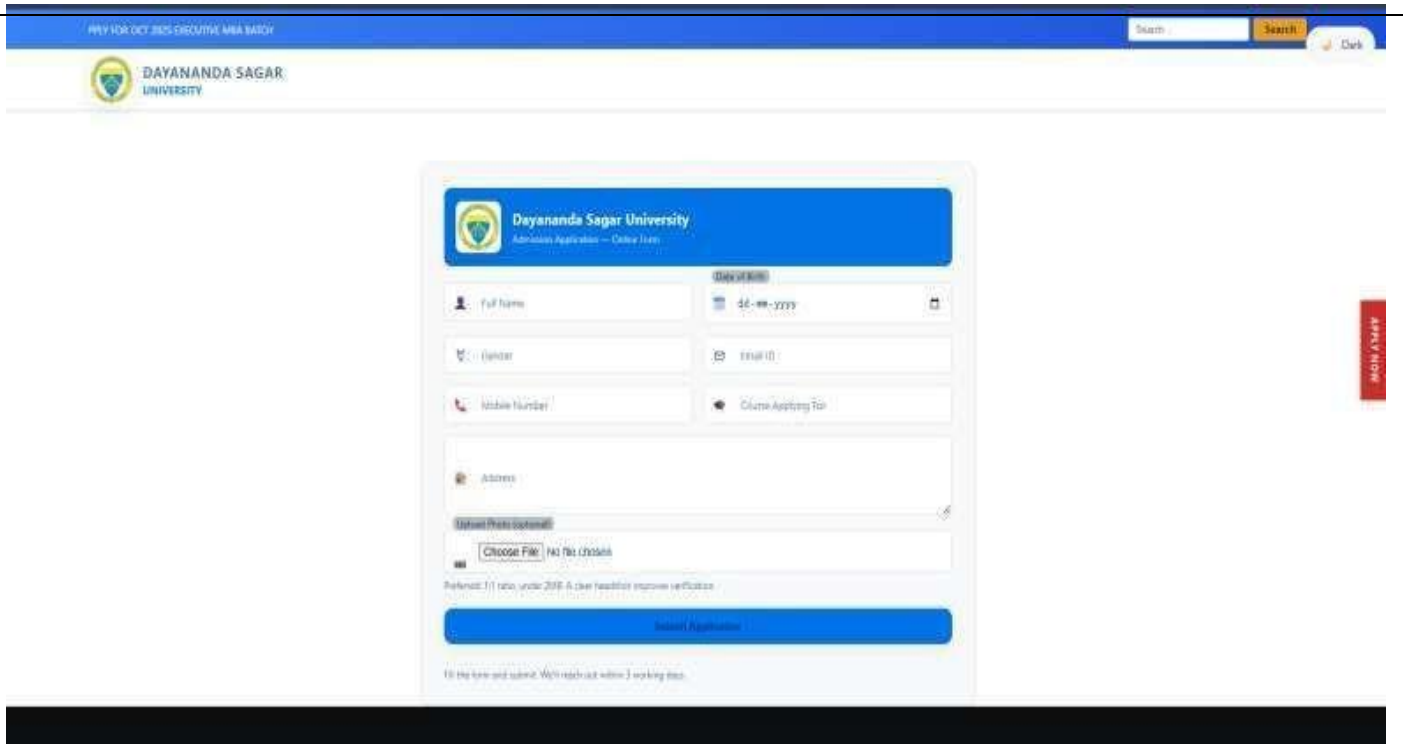
DSU Assistant

4.1(A)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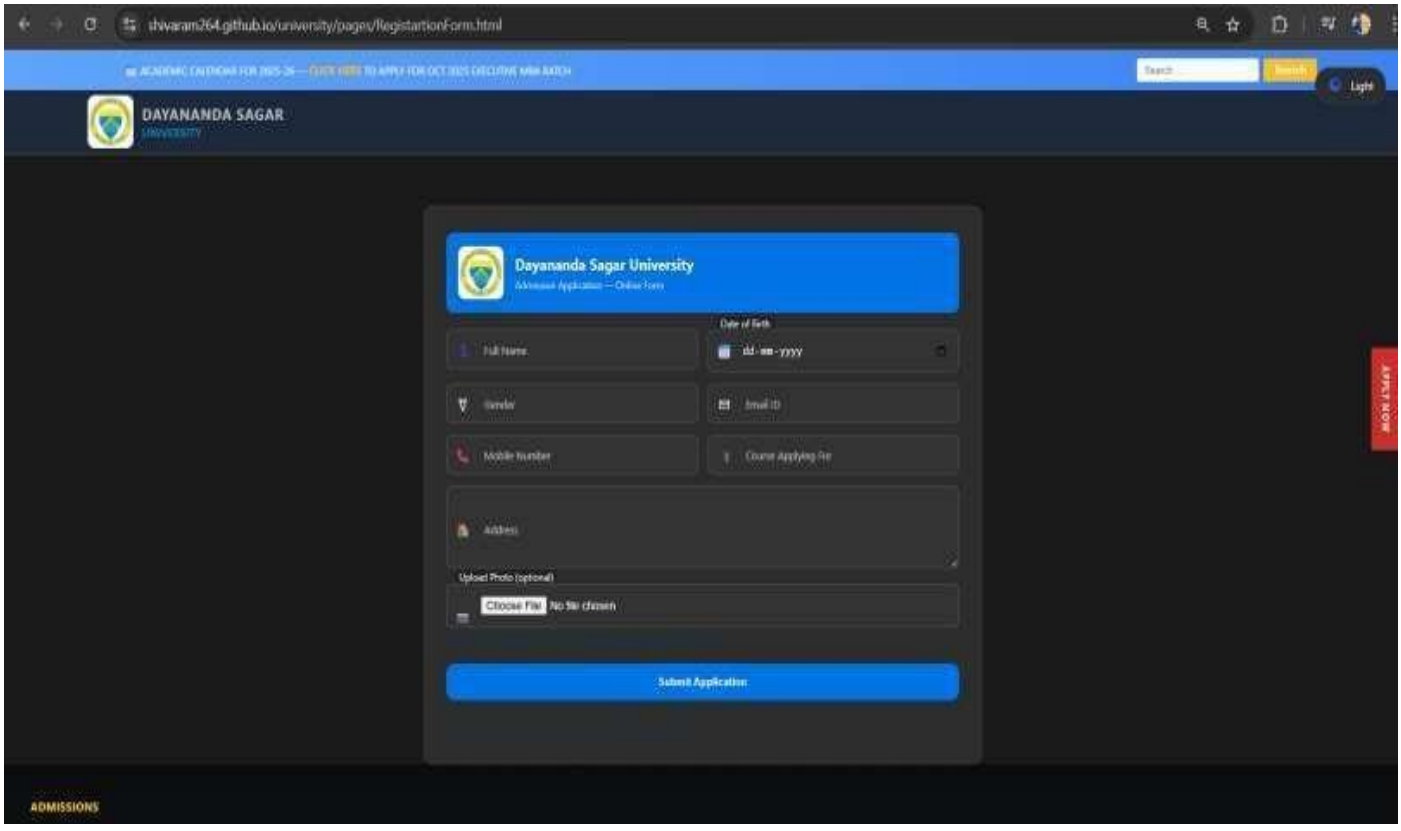
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ADMISSIONS

4.1(B)

CHAPTER 5 RESULT

System Implementation

The Dayananda Sagar University (DSU) College Website was successfully developed and deployed as a modern, responsive web platform. The frontend was built using React.js, offering a fast single-page experience, while the Node.js/Express backend handles routing, API requests, and server-side operations. The system uses MongoDB to store academic data, event updates, user information, and chatbot interactions.
A unique highlight of the project is the integration of an AI-powered DSU Assistant, designed to automatically answer queries related to admissions, courses, events, and campus facilities. In addition, the platform includes a Dark/Light Theme Toggle to improve user experience and accessibility, along with direct LinkedIn/Instagram API integration for real-time social media updates.

Feature Demonstrations

The following results demonstrate the core features:

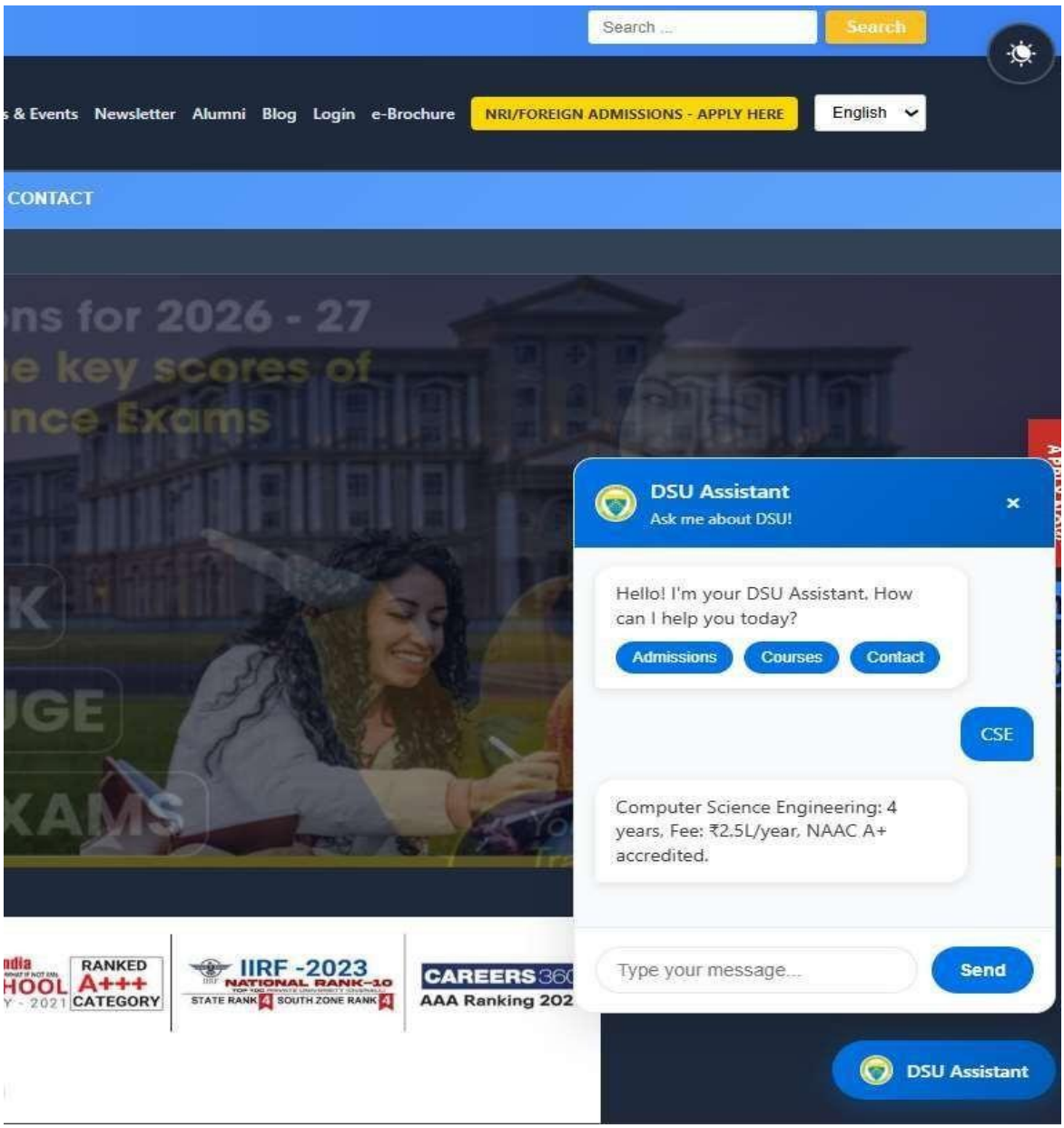
1. AI-Based DSU Assistant

The DSU Assistant is an interactive AI chatbot embedded within the website. It utilizes natural language processing to guide users with academic queries, event details, and general information about the university. Test Case Example:
Queries like *"Show me DSU engineering programs"* or *"When does admission start?"* were successfully processed, returning accurate and context-aware responses, highlighting the chatbot's effective integration and intelligent behavior.

Implementation Summary:

Built using a custom Node.js API connected to an AI inference model
Provides real-time question handling
Displays conversation history dynamically
Supports multi-intent queries and contextual follow-up responses

4.2(A)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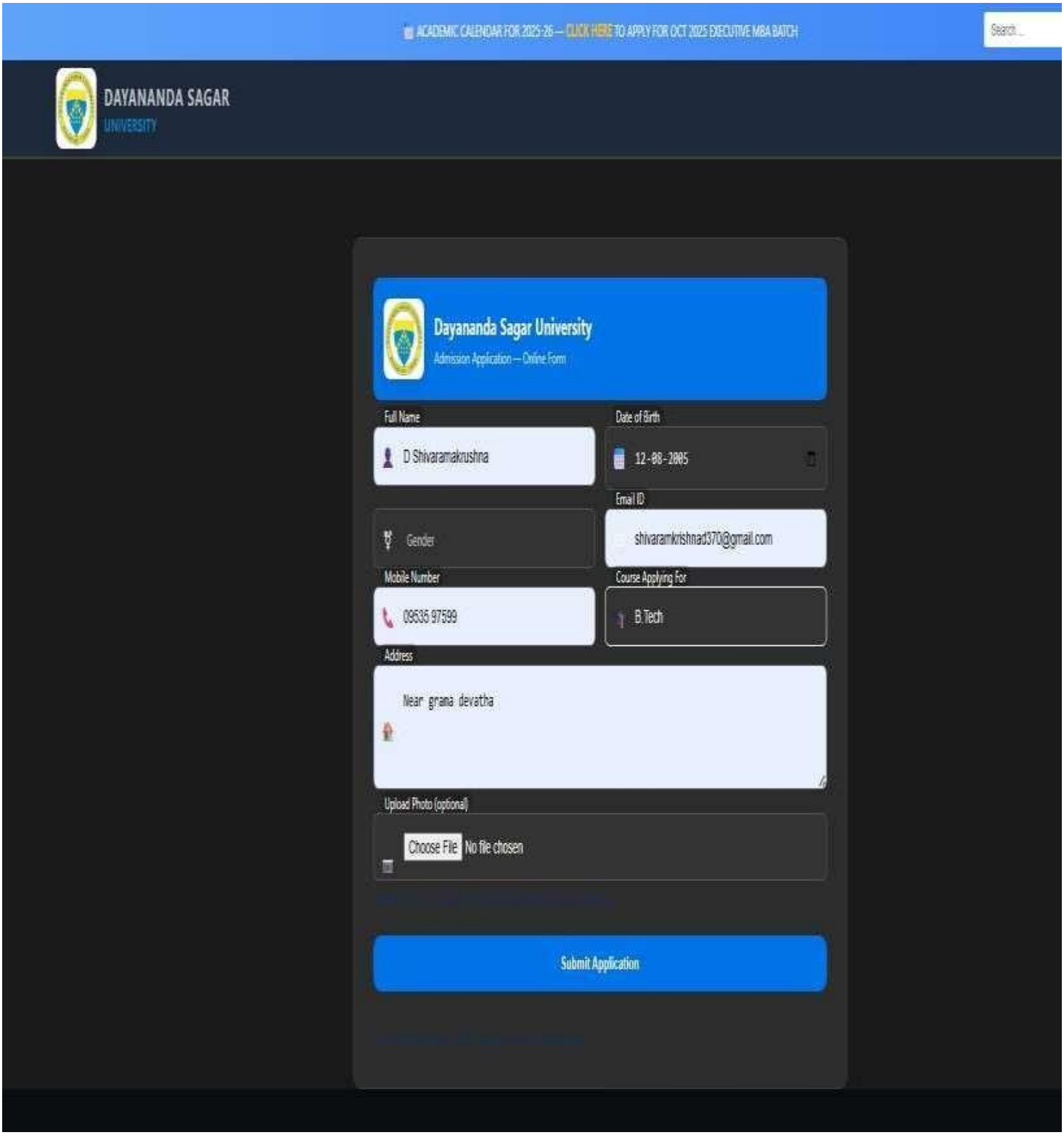
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Full Name
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Date of Birth
12-08-2005
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shivaramkrishna370@gmail.com
Gender
Mobile Number
09535 97599
Course Applying For
B.Tech
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Near grama devatha
Upload Photo (optional)
Choose File
No file chosen
Submit Application

4.2(C)

Conclusion

The *College Website with Extra Smart Features* project successfully delivers a modern, responsive, and user-friendly platform designed to improve communication, accessibility, and digital engagement within the campus. By integrating advanced functionalities such as the DSU AI Assistant, Dark Mode Theme, and direct social media linking (LinkedIn and Instagram), the system provides a more interactive and technologically enhanced experience for students and faculty.

The implementation of a chatbot enables quick access to academic and campus-related queries, while the dark mode feature improves readability and comfort for users across devices. Additionally, connecting the platform directly to professional and social networks supports career growth and community engagement.

Overall, the project achieves its goal of transforming a traditional college website into an intelligent, efficient, and student-centric digital solution, reflecting real-world industry standards in web development and UI/UX design.

Future Upgrades

The project can be further enhanced with the following improvements:

Voice-Enabled DSU Assistant

Integrating voice recognition to allow students to speak queries instead of typing, improving accessibility.

Student Login & Personalized Dashboard

Providing customized updates such as attendance, timetable, exams, placements, and notices.

Push & Email Notification System

Sending real-time alerts for events, announcements, and chatbot results.

Integration with College ERP / Placement Portal

Connecting to internal systems to display marks, assignments, placements, and results.

AI-Powered Recommendation System

Suggesting relevant clubs, events, and resources based on student interests and activity.

Mobile Application Version

Launching the system as an Android/iOS app for easy access on smartphones.