**A**

**PROJECT REPORT ON**

**“G-Campus”**

**Submitted To**

**UDHNA CITIZEN COMMERCE COLLEGE &**

**S.P.B. COLLEGE OF BUSINESS ADMINISTRATION &**

**SMT. DIWALIBEN HARJIBHAI GONDALIA COLLEGE OF BCA AND IT**

**Affiliated To**

**VEER NARMAD SOUTH GUJARAT UNIVERSITY, SURAT**

**As A Partial Fulfilment for The Degree Of**

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**[SURAT]**

**ACKNOWLEDGEMENT**

I extend my deepest gratitude to all those who have contributed to the completion of this project report.

First and foremost, I would like to express my sincere appreciation to Prof. Ronak Shah for their invaluable guidance, encouragement, and unwavering support throughout the duration of this project. Their expertise, constructive feedback, and patience have been instrumental in shaping the direction and quality of this work.

I am also indebted to UCCC & SPBCBA & SDHG COLLEGE OF BCA AND IT for providing the necessary resources and facilities essential for the successful execution of this project.

Furthermore, I wish to extend my heartfelt thanks to my family and friends for their understanding, encouragement, and moral support during the challenging phases of this endeavour. Their belief in my abilities has been a constant source of motivation.

Thank you all for your invaluable contributions.

**Kishore A. Sunchu**

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**Ayush A. Varma**

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**Ramashankar M. Pandey**

**INDEX**

|  |  |  |
| --- | --- | --- |
| **Chapter**  **No.** | **Chapter Name** | **Page**  **No.** |
| **1.** | **College Profile** |  |
| 1.1 Brief Overview / Highlights |  |
| 1.2 Institute Structure / Chart |  |
| **2.** | **Manual/Current / Existing System Study** |  |
| 2.1 Major Components / Flow |  |
| 2.2 Minimum Hardware / Software Configuration |  |
| 2.3 Drawbacks / Limitations |  |
| **3.** | **Propose Project Profile** |  |
| 3.1 Introduction |  |
| 3.2 Objective / Goal / Aim |  |
| 3.3 Scope |  |
| 3.4 Type of Project |  |
| 3.5 Technology / Environments E.g. tools |  |
| 3.6 Applicability of the system |  |
| **4.** | **Software Analysis** |  |
| 4.1 Preliminary Investigation |  |
| 4.2 Problem Identification |  |
| 4.3 Feasibility study / Risk Analysis |  |
| 4.3.1 Technical Feasibility |  |
| 4.3.2 Economical Feasibility |  |
| 4.3.3 Operational Feasibility |  |
| 4.3.4 Management Feasibility |  |
| 4.3.5 Time Feasibility |  |
| 4.4 Requirement Analysis |  |
| 4.4.1 Fact Finding Techniques |  |
| 4.4.2 Time Line Chart |  |
| 4.4.3 Model with Justification/ Agile Modeling |  |
| 4.4.4 Flow Chart |  |
| 4.4.5 DFD and/or UML |  |
| 4.4.6 Process / Control Specification |  |
| 4.4.7 Data Dictionary |  |

**INDEX**

|  |  |  |
| --- | --- | --- |
| **4.** | 4.4.8 E-R Diagram |  |
| 4.4.9 Data Object Description |  |
| **5.** | **Software Design** |  |
| 5.1 Project Design Process Hierarchy |  |
| 5.2 Database Design |  |
| 5.2.1 Justification of Normalization |  |
| 5.3 Architectural Design |  |
| 5.4 Algorithm Development / Pseudo-code |  |
| 5.5 User Interface Design |  |
| 5.6 Security Issues |  |
| 5.7 Quality / Reliability Measures |  |
| 5.8 System Map |  |
| **6.** | **Software Coding** |  |
| 6.1 Tools & Techniques |  |
| 6.2 Business Logic |  |
| 6.3 Result Snapshot |  |
| 6.4 System generated Reports |  |
| **7.** | **Software Testing** |  |
| 7.1 Test Cases & Test Data Design |  |
| 7.2 Output Comparison |  |
| 7.3 Testing Strategies |  |
| 7.4 Unit Testing |  |
| 7.5 Integration Testing |  |
| 7.6 System Testing |  |
| 7.7 Alpha Testing |  |
| **8.** | **Software Implementation** |  |
| 8.1 User Training |  |
| 8.2 User Manual / Help / SOP |  |
| **9.** | **Limitations / Constraints** |  |
| **10.** | **Future Enhancement / Path-A-Head** |  |
| **11.** | **Bibliography / Appendix / References** |  |
| **12.** | **Other Software Engineering Principles / Tools / Techniques / Models / Guidelines** |  |

**CHAPTER: 1**

**COLLEGE PROFILE**

* 1. **BRIEF OVERVIEW / HIGHLIGHTS**

**COLLAGE NAME:**

UDHNA CITIZEN COMMERCE COLLEGE AND

S.P.B. COLLEGE OF BUSINESS ADMINISTRATION AND

SMT. DIWALIBEN HARIJBAHI GONDLIA COLLEGE OF BCA AND IT

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**UDHNA COLLAGE EDUCATION TRUST:**

Udhna academy education trust was established in 1964 with the objective of catering to the educational needs of the citizen of the udhna area (i.e., south zone of Surat city) and South Gujarat. The trust has completed 52 years of brilliance since inception in 1996.it has spread the light of education in this region providing education ranging from pre-primary to higher secondary and graduation. Its pioneers started this institution with a very noble aim and far-reaching vision. As a result, today udhna academy education trust governs the following institutions, where about 6000 students seek high quality education.

**VISION:**

“To be an eminent vibrant institute for education, our credo always be excellence through innovations, empathy, ethics and team work and to cater to the ever-changing needs of community at large.”

**MISSION:**

“To impact quality education, nurture aspirations and facilitate continuous learning and to the society by developing outstanding individuals who would take up leadership challenges in various sectors of economy.”

**SILENT FEATURES:**

* Qualified and Experienced Faculty members
* Book Bank Facility
* Well-equipped Text and Reference Library
* Strong industry-institute Interaction through Seminar, Guest Lectures, Projects, Visits.
* Faculty Feedback System to Strengthen Teaching-Learning Process
* Indoor and Outdoor Co-curricular & Extra-curricular Activities
* Social welfare initiatives in plantation of Trees, Blood donation camp, NSS Camp and relief during natural calamities
* NSS, Sports as character building activities
* Tie-up with Health Centre for free Medical Service to all students and staff
* Well-equipped computer Laboratories with Broad band internet connection
* Canteen Facility for student and staff
* Scholarship to Topper in academies, extra-curricular activities and sports
* Anti-Ragging cell
* Women’s cell
* Placement cell
* Smart cell
* Seminar conducts by doctors

**WOMENCELL:**

Chairperson: Dr Daisy Sheby Thekkanal

Vice Chairperson: Ms. Tvisha J. Parmar

Members:

1. Ms. Perl kharas

2. Ms. Amina Nakhuda

3. Ms. Jinal Purohit

Udhna College has constituted a women cell in 2013-14 to provide harmony atmosphere at the

college for the female students. The objective of the cell is to promote intellectual & cultural

activities, to enhance self-esteem& to develop critical thinking ability of girl student. They can

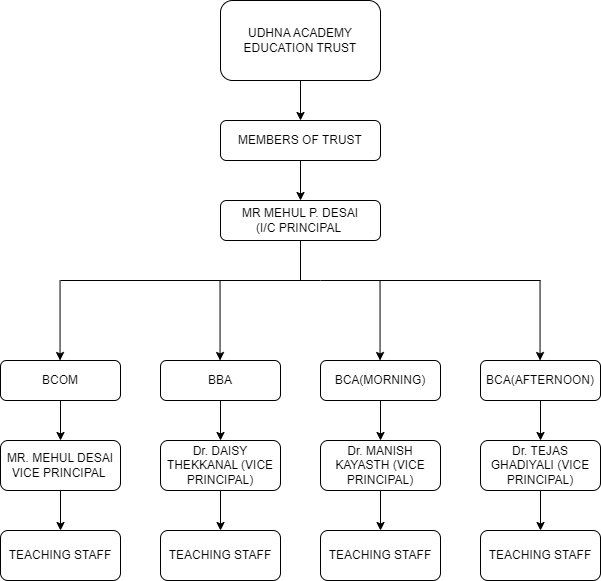
mail their suggestions, feedback creative contributions and can also drop box on the third floor

next to administrative office.

**PLACEMENT & CAREER COUNSELLING CELL:**

The College Placement & Career Counselling Cell invites some very reputed corporate to conduct interviews at the college every year. The firms like FBB Group, ICICI Bank, Kotak Mahindra Bank, Reliance Telecom, Transforms India, etc. visit our college and recruit students. In Addition, under the banner of Career Counselling Cell, the college invites experts and experienced professionals from the industry & corporate world to guide the students about their prospects. Thus, the placement & career counselling cell make shift in students future ready.

* 1. **INSTITUTE STRUCTURE / CHART**



**CHAPTER: 2**

**EXISTING SYSTEM STUDY**

**2.1** **MAJOR COMPONENTS / FLOW**

A college management system typically consists of several major components designed to

streamline various administrative, academic, and operational tasks within an educational

institution. These components may vary depending on the specific needs and functionalities

required by the college, but here are some common ones:

1.Student Information System (SIS):

- This component manages student data including personal information, academic records, enrolment status, grades, attendance, and disciplinary records.

- It allows for student registration, course enrolment, and tracking of academic progress.

2. Administrative Management Module:

- Handles administrative tasks such as admissions, student billing, fee management, financial

aid management, and scholarship/grant distribution.

- Manages staff information including payroll, attendance, and performance evaluation.

3.Course Management System (CMS):

- Facilitates course scheduling, assignment of faculty to courses, and management of course materials.

- Provides tools for curriculum planning, tracking of course progress, and assessment of student learning outcomes.

4. Library Management System:

- Manages library resources including books, journals, periodicals, and multimedia materials.

- Allows for cataloguing, circulation, reservation, and tracking of library items.

- Provides search capabilities and online access to library resources.

5. Examination Management System

- Handles the scheduling, administration, and grading of examinations.

- Manages exam timetables, seating arrangements, and allocation of exam venues.

- Provides tools for generating and analysing exam results.

6. Attendance Management System

- Tracks student and staff attendance.

- Generates reports on attendance patterns and trends.

- May include biometric or RFID-based attendance tracking mechanisms.

7. Human Resource Management System (HRMS)

- Manages employee information including recruitment, hiring, training, and performance evaluation.

- Handles payroll processing, benefits administration, and leave management.

8. Financial Management System:

- Manages budgeting, accounting, and financial transactions.

- Tracks revenue, expenses, and financial performance.

9. Communication and Collaboration Tools:

- Provides communication channels such as email, messaging, and notifications for students, faculty, and staff.

- Facilitates collaboration through discussion forums, online classrooms, and virtual meeting spaces.

10. Security and Access Control:

- Implements security measures to protect sensitive data and ensure compliance with privacy regulations.

- Manages user access rights and permissions to different system functionalities and data resources.

**2.2 MINIMUM HARDWARE / SOFTWARE CONFIGURATION**

**Hardware configuration (Sever side):**

* **Processor:** Intel Xeon or equivalent multicore processor
* **RAM:** Minimum 8 GB (16 GB or more recommended for better performance)
* **Storage:** Minimum 500 GB HDD or SSD (SSD recommended for faster data access)
* **Operating System:** Linux (e.g., Ubuntu Server, CentOS) or Windows Server
* **Database Management System:** MySQL, PostgreSQL, or Oracle Database

**Hardware configuration (Client side):**

* **Processor:** Intel Core i3 or equivalent
* **RAM:** Minimum 4 GB (8 GB or more recommended for better performance)
* **Storage:** Minimum 128 GB HDD or SSD
* **Operating System:** Windows 10 or newer, macOS, or Linux

**Software configuration:**

* **Web Server:** Apache HTTP Server or Nginx
* **Programming Languages**: PHP, Python, JavaScript
* **Frameworks**: Laravel (for PHP), Django (for Python)
* **Database Management System**: MySQL, PostgreSQL
* **Version Control:** Git for managing source code

**2.3 DRAWBACKS / LIMITATIONS**

College management systems offer numerous advantages in streamlining administrative

processes and enhancing communication within educational institutions, they also come with certain drawbacks and limitations:

1. **Initial Cost and Implementation Time**: Implementing a comprehensive college

management system can be costly and time-consuming. It requires significant

investment in software licenses, hardware infrastructure, customization, and staff training.

1. **Complexity and Customization**: College management systems often require

customization to meet the specific needs of each institution. Managing the

complexity of customization can be challenging and may require technical expertise.

1. **Integration Challenges**: Integrating different modules and components within the

system can be complex, especially when dealing with legacy systems or third-party

applications. Incompatibility issues may arise, leading to data inconsistencies and

workflow disruptions.

1. **Data Security Risks**: College management systems store vast amounts of sensitive

data including student records, financial information, and personnel data. Ensuring

data security and compliance with privacy regulations is crucial to prevent unauthorized

access, data breaches, and identity theft.

1. **Dependence on Technology**: Educational institutions become increasingly reliant on

technology for day-to-day operations. System outages, software bugs, or hardware failures

can disrupt critical processes and impact productivity.

1. **User Resistance and Training Needs**: Resistance to change among faculty, staff, and

students can pose challenges during system implementation. Adequate training and

support is essential to ensure smooth adoption and usage of the system.

1. **Scalability and Flexibility**: As educational institutions grow or evolve, scalability and

flexibility become important considerations. College management systems should be

able to accommodate changing needs and scale up to support larger user bases and

additional functionalities.

1. **Maintenance and Upkeep**: College management systems require ongoing maintenance,

updates, and technical support to keep them running smoothly and secure. This can place

additional demands on IT resources and budgets.

1. **User Experience and Usability**: Poor user experience and usability issues can hinder the

adoption and effectiveness of college management systems. Designing intuitive interfaces

and optimizing workflows are essential to enhance user satisfaction and productivity.

**CHAPTER: 3**

**PROPOSE PROJECT PROFILE**

**3.1 INTRODUCTION**

Welcome to G-Campus – Your Gateway to Seamless Academic Excellence!

G-Campus is a cutting-edge college management system designed to revolutionize the way students interact with their educational institution and administrators manage administrative tasks. With a seamless blend of innovative technology and user-centric design, G-Campus offers a comprehensive platform that caters to the diverse needs of students, faculty, and administrators alike.

At G-Campus, we understand the importance of simplifying the academic journey for students while empowering administrators with efficient tools to streamline administrative processes. Whether you're a prospective student exploring academic opportunities or an administrator managing the intricacies of campus life, G-Campus is your one-stop destination for all things academic.

For students, G-Campus offers a user-friendly interface where they can explore detailed information about our college, including program offerings, faculty profiles, admission procedures, and campus facilities. Through our secure portal, students can seamlessly apply for admission, track their application status, and access personalized information about their academic journey.

For administrators, G-Campus provides powerful administrative management tools that simplify complex tasks such as admissions management, student verification, course scheduling, and faculty management. With G-Campus, administrators can efficiently navigate the intricacies of campus administration, freeing up valuable time to focus on fostering academic excellence and student success.

Powered by the latest web technologies including ReactJS, Node.js, MySQL, and Tailwind CSS, G-Campus offers a responsive and dynamic platform that adapts to the evolving needs of our educational community. Our commitment to data security, accessibility, and continuous improvement ensures that G-Campus remains at the forefront of educational innovation, empowering students, and administrators to thrive in an ever-changing academic landscape.

At G-Campus, we believe in the power of education to transform lives. That's why we've created a platform that prioritizes accessibility, efficiency, and excellence in education for all.

**3.2 OBJECTIVE / GOAL / AIM**

The objectives for the G-Campus website could encompass various aspects aimed at benefiting both students and administrators. Here are some potential objectives for the website:

**1. Streamline Admission Process:** Simplify the admission process for prospective students by allowing them to apply online, track their application status, and receive timely notifications about admission decisions.

**2. Enhance Student Experience:** Provide students with a user-friendly platform to access essential information such as course schedules, grades, and announcements, thereby improving their overall academic experience.

**3. Improve Administrative Efficiency:** Empower administrators with tools to efficiently manage admissions, course assignments, faculty appointments, and other administrative tasks, reducing manual effort and streamlining processes.

**4. Drive Continuous Improvement:** Solicit feedback from users and stakeholders to identify areas for improvement and innovation, driving continuous enhancement of the website's functionality, usability, and effectiveness in meeting the needs of its users.

**5. Ensure Data Security and Privacy:** Implement robust security measures to safeguard sensitive student and administrative data, ensuring compliance with privacy regulations and protecting against unauthorized access or data breaches.

**6. Facilitate Academic Planning and Monitoring:** Enable students and administrators to plan, track, and monitor academic progress effectively, facilitating informed decision-making and proactive intervention when necessary.

**7. Promote Accessible Education:** Ensure that the website is accessible to users with disabilities, adhering to web accessibility standards and providing accommodations to ensure equitable access to educational resources and services.

**8. Support Institutional Growth and Innovation:** Lay the foundation for future growth and innovation within the institution by implementing scalable and adaptable technology solutions that can accommodate evolving needs and technological advancements.

**3.3 SCOPE**

The scope of the G-Campus website encompasses a wide range of functionalities and features aimed at improving the overall management and delivery of education within the college. Here are some key areas within the scope of the website:

**1. Admissions Management:** Streamlining the admissions process by providing an online platform for prospective students to apply, submit documents, track their application status, and receive admission decisions.

**2. Student Information System:** Managing student data including personal information, academic records, course schedules, grades, attendance, and extracurricular activities through a centralized student information system.

**3. Administrative Tools:** Providing administrators with tools to manage admissions, course assignments, faculty appointments, financial aid, student billing, and other administrative tasks efficiently.

**4. Course Management System:** Facilitating course planning, scheduling, assignment of faculty, distribution of course materials, tracking of course progress, and assessment of student learning outcomes.

**5. Scalability and Flexibility:** Designing the website architecture to accommodate growth, scalability, and flexibility, allowing for the addition of new features, adaptation to changing requirements, and support for future technological advancements.

**6. Security and Data Privacy:** Implementing robust security measures to protect sensitive student and administrative data, ensuring compliance with privacy regulations, and safeguarding against unauthorized access or data breaches.

**7. User Experience and Accessibility:** Designing a user-friendly interface that is accessible to users of all abilities, ensuring ease of navigation, intuitive interaction, and compatibility across different devices and screen sizes.

**8. Analytics and Reporting:** Providing analytics and reporting tools to track key performance indicators, monitor trends, and generate insights that inform decision-making and drive continuous improvement within the institution.

**3.4 TYPE OF PROJECT**

The G-Campus website, falls under the category of a **Web Application**.

A web application is a software application that runs on a web server and is accessed through a web browser over a network, typically the Internet. It provides users with interactive experiences and functionality like traditional desktop applications, but with the convenience of being accessible from any device with a web browser and an internet connection.

The G-Campus website serves as a centralized platform for managing various aspects of college operations, including admissions, student information, administrative tasks, course management, communication, and collaboration. It leverages modern web technologies such as ReactJS, Node.js, MySQL, and Tailwind CSS to deliver a dynamic, user-friendly, and responsive experience to its users.

**3.5 TECHNOLOGY / ENVIRONMENTS E.G. TOOLS**

Here are the technologies and environments commonly used in developing a web application like G-Campus:

**1. Frontend Development:**

**ReactJS:** A JavaScript library for building user interfaces, allowing for the creation of dynamic and interactive frontend components.

**HTML/CSS:** Standard markup and styling languages for structuring web pages and designing user interfaces.

**Tailwind CSS:** A utility-first CSS framework for quickly building custom designs with pre-built CSS classes.

**JavaScript (ES6+):** The programming language used to add interactivity and behavior to web pages.

**2. Backend Development:**

**Node.js:** A JavaScript runtime environment that allows for server-side scripting, enabling the development of scalable and high-performance backend applications.

**Express.js:** A minimalist web application framework for Node.js, providing a robust set of features for building web servers and APIs.

**3. Database:**

**MySQL:** A relational database management system used for storing and managing structured data related to students, faculty, courses, admissions, etc.

**4. Development Tools:**

**Visual Studio Code:** A popular code editor with a wide range of extensions and features that enhance productivity and facilitate collaborative development.

**Git and GitHub:** Version control system and hosting platform for managing code repositories, enabling collaboration, and tracking changes across development stages.

**Command Line Interface (CLI) tools:** For running scripts, managing dependencies, and other development tasks.

**3.6 APPLICABILITY OF THE SYSTEM**

The applicability of the G-Campus system extends to various stakeholders within the college community, including:

**1. Prospective Students:** Prospective students can use the system to explore academic programs, admission requirements, and campus facilities. They can apply for admission online, track their application status, and receive important updates and notifications.

**2. Current Students:** Current students benefit from the system by accessing their personal dashboard to view course schedules, grades, attendance records, and academic progress. They can also communicate with faculty, access course materials, and participate in online discussions and collaborative activities.

**3. Faculty Members:** Faculty members can use the system to manage course materials, assignments, and grades. They can communicate with students, post announcements, and provide feedback on assignments and assessments. The system also allows faculty to track student progress and identify students who may need additional support or intervention.

**4. Administrators:** Administrators have access to administrative tools that facilitate admissions management, course scheduling, faculty assignments, and financial aid distribution. They can generate reports, analyse data, and make informed decisions to improve institutional efficiency and effectiveness.

**5. Support Staff:** Support staff, such as advisors, counsellors, and registrars, can use the system to provide guidance and assistance to students. They can track student interactions, maintain records, and provide personalized support to help students navigate their academic journey.

**6. Alumni:** Alumni can stay connected with the college community through the system by accessing alumni directories, event calendars, and career resources. They can also contribute to fundraising efforts, mentorship programs, and other initiatives that support the college and its students.

**CHAPTER: 4**

**SOFTWARE ANALYSIS**

**4.1 PRELIMINARY INVESTIGATION**