**SYNOPSIS**

**Report on**

**KIET DATA CENTER**

**by**

Nishant Sharma 2100290140098

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Under the supervision of

**Dr. Sangeeta Arora (Associate professor)**

### KIET Group of Institutions, Delhi-NCR, Ghaziabad



### Department Of Computer Applications

**KIET GROUP OF INSTITUTIONS, DELHI-NCR GHAZIABAD-201206**

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**ABSTRACT**

This project consists of managing the college and department databases to effectively manage its various departments and functions. This project aims to create such a system by designing and implementing a centralized database management system.

The database system will include various modules or components that will manage the different aspects of the institution, including student information, event management, account department, human resources, and placement management. The student information module will store and manage information related to student certificates, academic details, and other personal information.

The event management module will help organize and manage different types of events held by the college, including participation details of the students. The account department module will keep track of the financial details of the institution, including managing fees, salaries, and other financial transactions.

The human resources module will manage the personnel details of the staff members, including their roles, responsibilities, and performance details. The placement management module will track the students who have been placed in various organizations after completing their studies.

The database system will allow the college or university to streamline its operations, improve communication and collaboration, and make data-driven decisions. By centralizing data and providing a single platform to manage various departments, the system will reduce costs and improve overall efficiency.

**INTRODUCTION**

**T**he project at hand focuses on the efficient management of the college and department databases. In today's world, information technology plays a vital role in the smooth functioning of any organization, and educational institutions are no exception. The management of data related to academic details, student certificates, and various events is a critical aspect of any college's operations. This project aims to provide a comprehensive and efficient database management system that will enable the college to manage its various departments and functions effectively

This project aims to provide a solution to the challenges faced by colleges in managing their databases. The project will focus on the efficient management of college and department databases, enabling the institution to manage its various functions effectively. The system will store and organize data related to student certificates, academic details, and various events held by the college with participating students.

The system will also keep track of the account and human resources departments, ensuring that all operations are integrated seamlessly. Additionally, it will track students who have been placed in various organizations, allowing the college to monitor their progress after they leave the institution.

For a given registrar / staff / student (Technical / Non-technical) the Administrator creates login-id & password, using these registrar/ staff / students (Technical / Non-technical) can access the system to either upload or download some information from the database.

The front-end will be HTML pages with Java Script for client-side validation whereas all business logics will be in PHP reside at middle layer. And these layers will interact with third layer of database, which will be MySQL database. The web server will be Apache. To start working on this project environment required is a server having Apache as web server, MySQL as database and LAMP (Linux, Apache ,MySQL and PHP ) as development environment.

Overall, the implementation of a comprehensive and efficient database management system will help the college to manage its various departments and functions more efficiently. This will ultimately enhance the institution's reputation and provide better educational opportunities to its students.

**Research Objective**

**1.Monitoring Information simple and easy:** Monitoring information can be made simple and easy using a KIET data center. This system provides a centralized platform for storing and managing data, making it easy to access, update, and analyse information.

**2.Better Decision Making:** We can lead to better decision-making by providing quick access to accurate and up-to-date data. The system allows data to be organized and stored in a structured format, which makes it easy to search, retrieve, and analyse the data.

**3.Minimize Paperwork:** This system can help minimize paperwork by providing a digital platform for storing and managing data. This eliminates the need for physical paper files and reduces the amount of paperwork required to manage the data.

**4.Become less dependent:** An Institution become less dependent on staff and students by automating tasks, providing a centralized platform for managing data, and enabling secure access to the data. This reduces the workload on staff and students, improves efficiency, and reduces the risk of errors and data loss

**Modules**

**A** comprehensive and efficient database management system for a college typically includes several modules that address various areas of the institution's operations. Here are some of the key modules that may be included:

**1.Student Management Module:** This module manages student information, including personal details, academic records, attendance, and exam results. It also provides functions for managing course registration, student fees, and scholarships.

**2.Faculty and Staff Management Module:** This module manages faculty and staff information, including personal details, employment history, and professional development. It also provides functions for managing payroll, benefits, and performance evaluations.

**3.Event Management Module:** This module manages college events, including academic and social events, and tracks student participation. It provides functions for managing event schedules, registration, and communication.

**4.Financial Management Module:** This module manages the college's financial information, including budgets, expenses, and revenue. It also provides functions for managing accounts payable and receivable, financial reporting, and auditing.

**5.Placement Management Module:** This module manages the placement of students in various organizations and tracks their progress. It provides functions for managing job postings, student applications, and employer information.

**6.Human resources:** This module would manage the personnel details of the staff members, including their roles, responsibilities, and performance details.

**7.Resource Management Module:** This module manages the college's resources, including physical assets, such as buildings, equipment, and library materials. It also provides functions for managing maintenance schedules, inventory, and procurement.

**O**verall, these modules work together to provide a comprehensive and efficient database management system that addresses the various areas of a college's operations, helping to improve efficiency, accuracy, and service delivery.

**Brief overview of the technology:**

**Front end**: HTML, CSS, JavaScript.

HTML: HTML is used to create and save web document. E.g., Notepad/Notepad++

CSS: (Cascading Style Sheets) Create attractive Layout

Bootstrap: responsive design mobile friendly site

JavaScript: it is a programming language, commonly use with web browsers.

**Back end**: PHP, MySQL

PHP: Hypertext Pre-processor (PHP) is a technology that allows software developers to create dynamically generated web pages, in HTML, XML, or other document types, as per client request. PHP is open-source software. (Note: Use PHP Version 8.0.25 Server)

MySQL: MySQL is a database, widely used for accessing querying, updating, and managing data in databases.

**Software Requirement (any one)**

WAMP Server

XAMPP Server (PHP version 8.0.25)

MAMP Server

LAMP Server

BROWSER (You may use any browser that is compatible with your operating system)

**Hardware Requirement**

RAM: 4GB

Hard-Disk: 256GB

Processor: i3 processor,

Operating system: Mac, Windows, Linux.

**Project Outcome**

**E**asy to extract the information about upcoming decisions from higher authorities. Automate the process of information transfer between departments to save time with respect to deadline.

**1.Easy access to information:** KIET data center can make it easy for college officials to extract information about upcoming decisions from higher authorities. By storing all relevant data in a centralized database, administrators and other department can quickly access the information they need to make informed decisions. This can lead to faster decision-making and more efficient operations.

**2.Automation of data transfer:** KIET data center can process the information of transfer between departments. This can save time and ensure that deadlines are met. For example, if one department needs to share data with another department to complete a task. This can reduce the risk of errors and delays, leading to more efficient operations and better outcomes.

**Proposed Time Duration**

**Proposed Time Duration**: The project is expected to be completed within a period of 24 Weeks, starting from the date of approval. The project will be divided into three phases, each of which will take 4 Weeks to complete. The first phase will focus on requirements gathering, system analysis, and design. The second phase will involve system development and implementation. The final phase will include system testing, training, and deployment.

It's important to note that the proposed time duration is subject to change based on various factors such as unforeseen challenges, changes in project scope, and resource constraints. However, the team will make every effort to ensure that the project is delivered on time.

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