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Implementation of Online Student Counseling System

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Abstract

The creation and implementation of online student discussion aims to provide students with a good and easy discussion service. The system integrates modern technology to facilitate communication between students and advisors, providing timely academic, personal and emotional support. This article provides an overview of the design, features, and functionality, including user authentication, scheduling, secure messaging, and task sharing. This article also discusses the benefits of online dating such as improved accessibility, privacy, and scalability. Evaluation of the system demonstrates its effectiveness in improving student health and academic performance.

The development of online communication is to improve communication. This software will be very useful for students. An online forum was created to improve communication and enhance online work. This software will be very useful for students to sign, register and request school information. This project is designed to create an online forum where students can consult and update regularly. This program was chosen to save time and resources for advisors and students and to eliminate existing deficiencies in the processing of information.

Keywords: Online Counseling, Higher Education, Graduation.

INTRODUCTION

It is designed to improve student feedback and operates as a fully online software. Through this process, students can apply for counseling based on their qualifications and receive information about universities they can apply on the basis of their qualification. Students can also get information about the quotas allocated by the school and the available quotas. This will help students choose majors they like rather than courses the school offers. Providing all this information to students at regular intervals both speeds up the process and shortens the duration of the organization. In addition to providing convenience to students, the software also helps schools manage the entire counseling process by reducing paperwork. Online Student Support Program aims to meet the health needs of university students through a digital platform. This will help students choose majors they like rather than courses the school offers. All this information will be given to students temporarily, thus speeding up the process and shortening the duration of the organization. In addition to providing convenience to students, the software also helps schools manage the entire counseling process by reducing paperwork.

The system is divided into three parts: leaders, advisors, and students. Administrators can log in us-

ing their ID and password.Administrators can add, delete, edit and view advisors. Administrators have an ability to add and delete students. Students can register by providing key information such as authentication email and contact information through OTP and logging in using their credentials. Students can change their password in case of an emergency. Students may provide feedback to their advisor or director. Online courses for students are designed to provide virtual support and guidance to students facing a variety of challenges, both academic and personal.

OBJECTIVE

The primary purpose of Management is to manage student data, grades, transcripts advising, and registration.Manages all student information. The goal of this project is to create an application that reduces the physical burden of managing students this will allow us to make the human work faster and quickly. An important factor in ensuring the quality of the teaching and managing learning process at school is the admission of student participating in competitions. With this in mind, we aim to solve the problems applicants, parents, and government officials face during the admissions/counseling process. This software not only provides convenience to students but also provide the facility to the school that helps schools manage the entire admissions process.

1. **Improve Accessibility**: The main goal is to make counseling services more accessible to students.
2. **Personal support**: The online session aims to provide personal support tailored to each student's individual needs.
3. Communicate graphically with any students who are disorganized.
4. Reduce the time required for the admission process, verify student information,and send notifications to selected students.
5. Centralized data processing.
6. Paperless access, reduced staff.
7. Reduce working time.

Problem Statement:

an Online Student Counseling System aims to alleviate various challenges prevalent within educational settings. Traditional counseling services often encounter limitations in accessibility, primarily due to geographical constraints and conflicting schedules. Accessibility issues are further compounded by the stigma surrounding seeking counseling, which discourages many students from seeking support. Moreover, the fixed operating hours of conventional counseling services may not align with the diverse schedules of students, hindering their ability to seek assistance promptly. Additionally, concerns regarding privacy and confidentiality during face-to-face counseling sessions deter some students from seeking help. Furthermore, the scalability of traditional counseling services presents challenges during periods of high demand, such as exam seasons. Transitioning to an online platform offers a solution by providing students with convenient, round-the-clock access to counseling support from the privacy of their own space. However, the successful implementation of such a system necessitates addressing issues related to technology literacy, data security, and the integration of diverse counseling needs. Consequently, a well-designed Online Student Counseling System holds the potential to revolutionize mental health support on campus, fostering accessibility, inclusivity, and effectiveness in catering to the diverse needs of students.

LITERATURE SURVEY

1. "[Ajay Gadicha, Pranav Gangan, Deepesh Nakhale, Mehul Suramwar, Aniket Waghmare, Shoeb Sorathiya "] Student's Counseling is the process that includes different types of activities such as guiding students of colleges and universities, supporting them in academics, 2018, Student can give basic details like Email & Contact number verification by OTP to get registered and can login be using credentials.
2. Student attendance management system ["Hamsa A Abdullah, Israa A Mohson, Ether S Mohamad Ali"] I-Manager's Journal on Information Technology, 2015 "Attendance Management System" is software developed for maintaining the attendance of the student on the daily basis in the college. Here the staffs, who are handling the subjects, will be responsible to mark the attendance of the students.
3. University Online Counseling: Recommended Model Using Android ["Krenar Huseini, Neshat Ajruli, Agon Memeti "] International Copenhagen, Denmark, July 2020, Proceedings, 2020 the growing impact over smart phone increases the development of mobile application for educational counseling. The main idea of this paper is to recommend a mobile application model that is used for Guidance and Counselling services.
4. A research on design and development of counseling course for newly enrolled students in the online education system Yiqiang Jin 2016 Electrical and Control Engineering, 2016 To boost the newly enrolled students' study through the online education system in a short time, they need a counseling course to acquire online learning techniques and methods. Based on literature review and questionnaire survey, this research constructs knowledge system of counseling course for these students.

The main goal of this system is to automate the processes performed at the university, increase productivity and implement the concept of paperless admissions. The proposed system mainly reduces the problems faced by the existing system. Therefore, in the proposed system, "Online Counseling System" provides online facility for reporting/registration or access to all types of information about universities and maintains all information about universities across the world.

- We maintain large amounts of student information for advisory purposes.
- All student information is available during the consultation.
- Reduce your workload when interviewing students for selection.
- It should be easier to update, change or delete records.

SYSTEM ARCHITECTURE & DESIGN

A student's online communication process typically involves several aspects.

- **User Interface**: The interface through which students and advisors interact with the system's web or mobile interface. Certification and Approval. This tool manages user authentication (access) and authorization (authorization), ensuring that only users are granted access to specific tasks and information.
- **Database**: A database that stores user information, chat information, meetings, and other related information.
- **Teacher Dashboard**: This interface allows teachers to monitor their schedules, view student notes, take lecture notes, and communicate with students.
- **Student Dashboard**: This interface allows students to schedule advising sessions, view advisor profiles, access resources,and communicate with advisors.

- **Security**: We use security measures such as logging, access control, and data anonymization to protect user data and ensure that their right to privacy is respected.
- **Integration**: Information sharing may require integration with other systems, such as a Learning Management System (LMS),Student Information System (SIS), or external services and partnerships.

DESIGN

The design phase of online student advising includes several important steps to ensure that the system meets the needs of students and faculty while remaining reliable, secure, and efficient. An overview of the design steps is as follows:

User Interface Design: This step creates an intuitive and user-friendly interface for students and teachers. Use wireframes to visualize the layout, navigation, and functionality of your system. Provides easy access and responsiveness across multiple devices.

System architecture design: This step design the high-level system, including its components, interactions and technologies, consider scalability, stability, security, flexibility etc.

Database Design: This step creates a database schema based on the information that needs to be collected during the collection phase. Let's create a database to store student information.

Security Design: During this time, we will establish security policies to protect user data, prevent unauthorized access, and ensure compliance with privacy laws.

Integration Project:-Identify external systems that need to be integrated with your learning system, such as a Student Information System (SIS) or Learning Management System (LMS).

IMPLEMENTATION

The use of online student interaction involves turning designs into functional software. Below is an example of the implementation process:

1. **Setting up the development environment** - In this phase we will install and configure the necessary development tools. This may include IDEs (Integrated Development Environments), version control systems, repositories and other dependencies to be developed
2. **Front-end development** - Create custom design-based user interface for students and advisors. During this project we will use xml (extensible markup language) to create the user interface.
3. **Backend Development** - Create server side logic and APIs (Application Programming Interface) to manage user authentication and data collection. We will use the Java programming language to create APIs and use them for backend development.
4. **Database Application** - At this stage, we will create the database schema and tables in accordance with the design. We use Firebase database to store user data, session data and other related data.
5. **Security Management** - Implement security measures to protect user information and prevent unauthorized access.
6. **Integration with external systems** - use interfaces and processes to integrate consulting with external systems (such as Data Core Learning (SIS), Learning Management System (LMS)).

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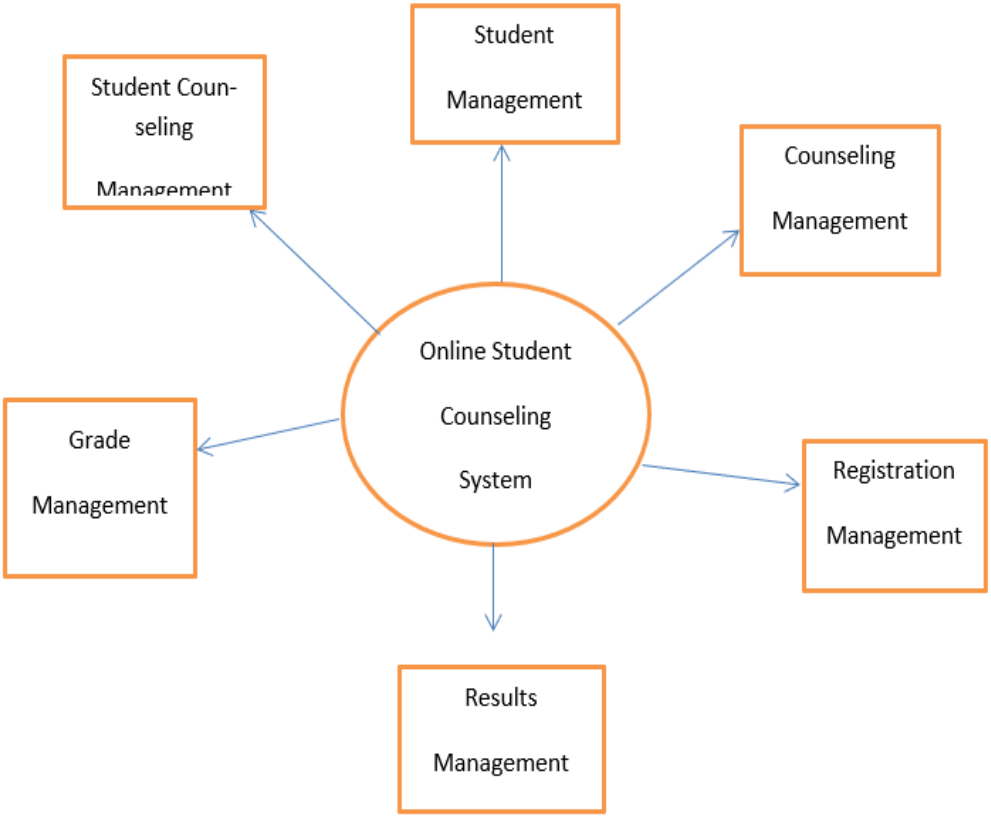

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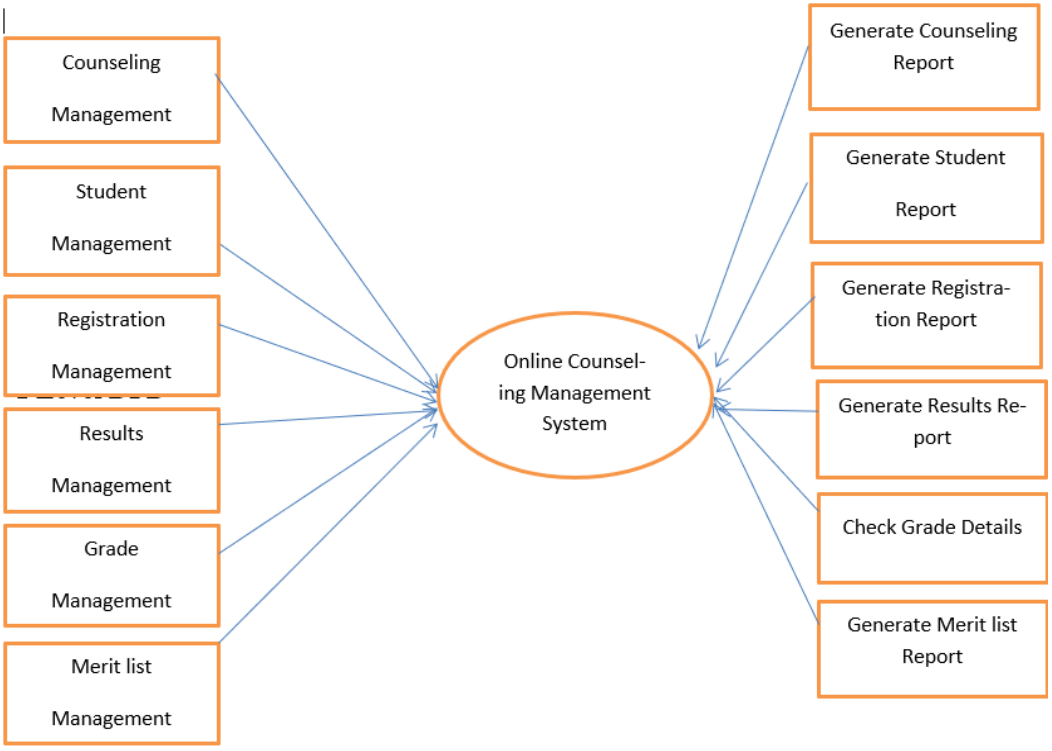

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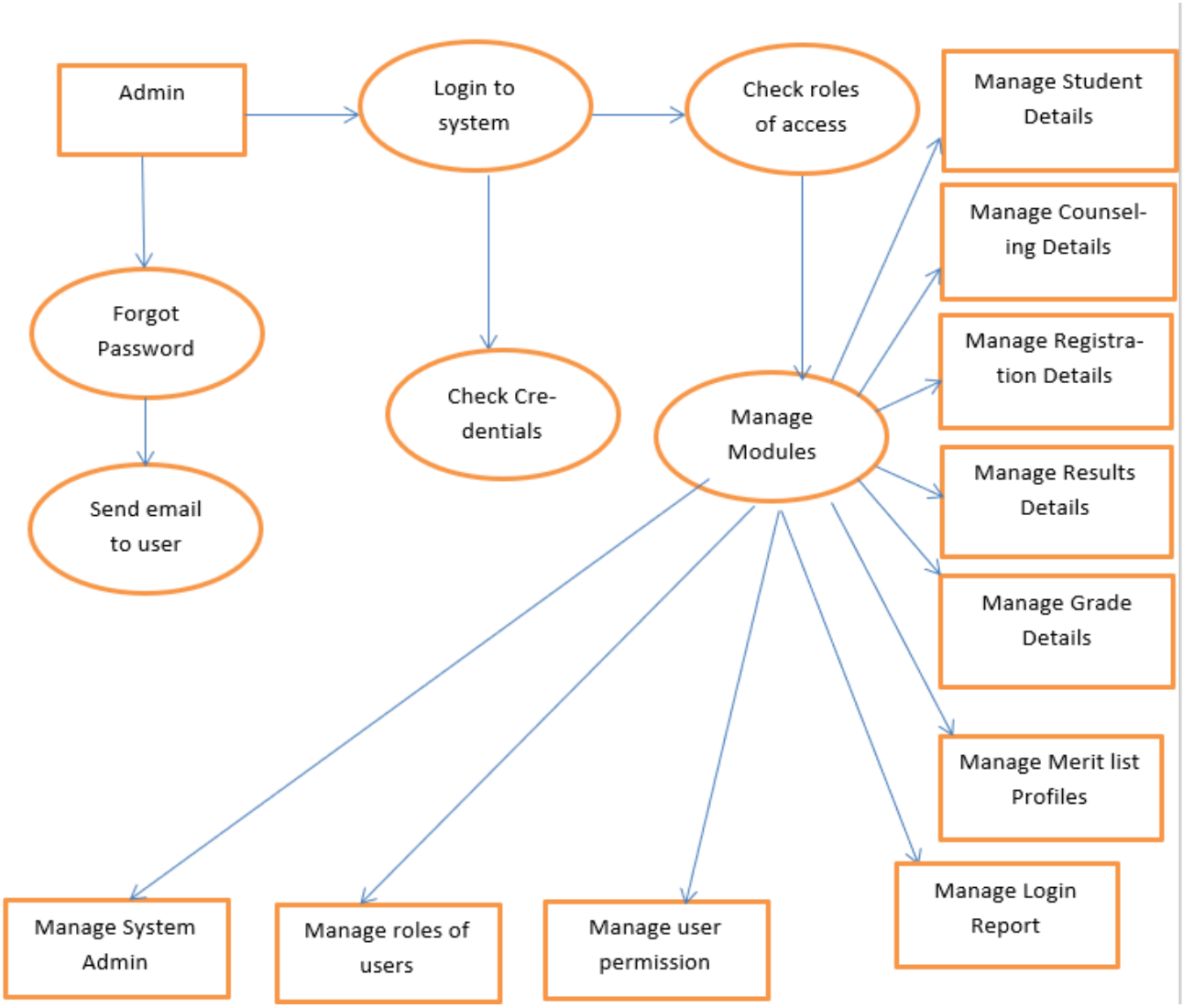


TECHNOLOGY

1. **Android Studio :-** Android is an integrated development environment (IDE) specially designed for Android application development. It provides a comprehensive set of tools and features to simplify the process of building, testing and deploying Android applications.
2. **Frontend:-**

XML:-XML or Extensible Markup Language is a markup language that defines rules for encoding data in human-readable and machine-readable formats. It uses tags to identify content in a document and enables the creation and collaboration of documents. In Android development, XML is often used to create user interfaces through layout information, such as defining the structure and appearance of an application screen in Android Studio.

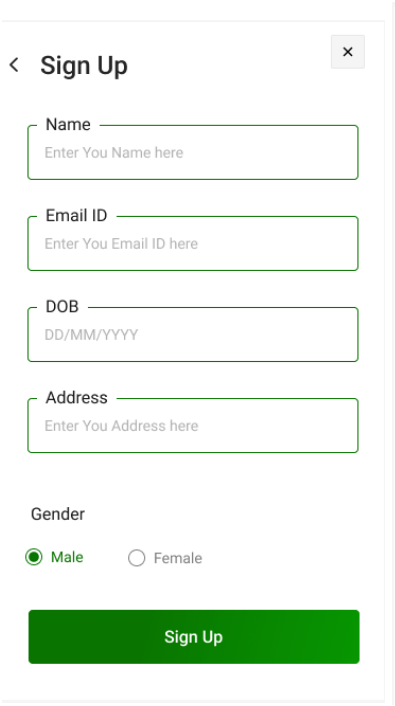
3. **Back End:-**

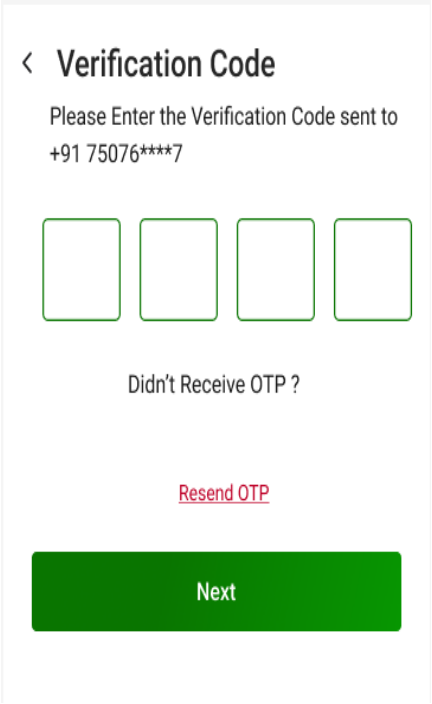
JAVA:-Java is a general purpose programming language designed to be platform independent. This means that a Java program can run on any device that has a Java Virtual Machine (JVM). This is followed by "write once, run anywhere". Java is widely used to develop many applications including web,

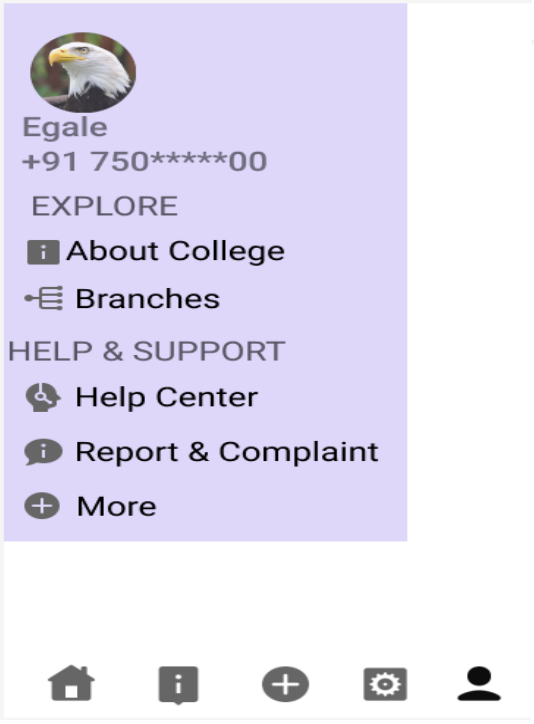
mobile and enterprise level. In Android development, Java is an important language used to create Android applications and functions.

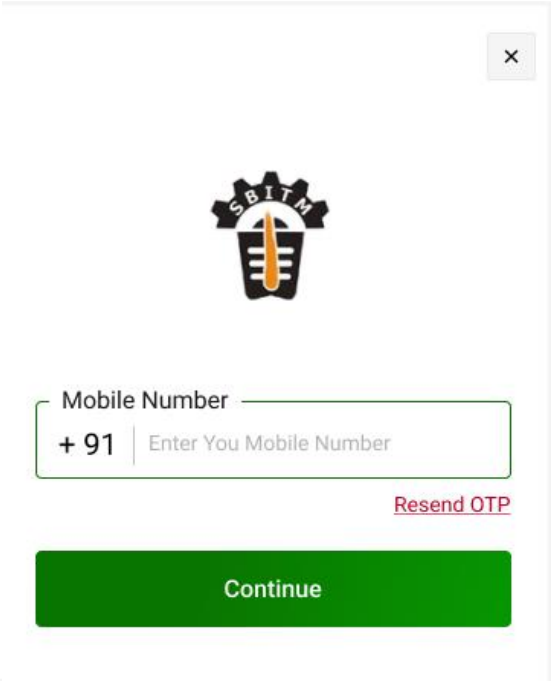
FIREBASE: - Firebase is Google's mobile and web application development platform. It provides a number of tools, including instant repositories and authentication services. Firebase is often used for functions such as OTP (one-time password) authentication in applications, providing a secure and effective way to authenticate users when logging in or registering.

RESULT/OUTPUT: here are some output of our project-









CONCLUSION

The online student counseling system ensures that students' discipline is well established, and at the same time, the integrated process is improved as resources are utilized more efficiently and effectively. Digitization helps you save more time. The key to all automation is reducing human error, effort, and time. Schools can easily track students and their queries using an online consultation system. During a pandemic, this is difficult to achieve using traditional methods because physical interaction between students is impossible and collecting information about students can be time-consuming. As a team of 4 people, we took each step forward towards achieving our goal. We used information we gained during our university studies to create online student counseling system.

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REFFERENCE

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