

BOBBY SCHOOL OF CYBER SECURITY

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INTRODUCTION:

The Bobby School Management System is a web application powered by Django, designed to make running an educational institution much easier and more efficient. Built with the Django framework, it takes advantage of Python's powerful tools and offers well-organized features like user logins, dashboards tailored to different roles, managing student and teacher profiles, posting announcements on a pinboard, and handling files and documents. By bringing all these tools together in one place, the system cuts down on the amount of administrative work and helps everyone—administrators, teachers, and students—interact more smoothly.

The app is set up so that each type of user has specific tasks and permissions. Administrators handle approvals and oversee everything, teachers look after academic records and related activities, and students can see announcements, assignments, and update their personal info. This clear division of responsibilities mirrors how things work in a real school and shows how web technology can be tailored to fit the needs of an educational setting.

Apart from its functionality, the system demonstrates the significant aspect whereby software development choices affect overall reliability and security. The project discerns general patterns, practices, and settings, which if overlooked, contribute to vulnerabilities in a production environment. In examining its architecture, implementation choices, and vulnerabilities, this report gives an understanding into school management platform development and deployment risks, yet, simultaneously gives a basis upon which recommendations and secure development practices can be created.

2FEATURES

2.1 STUDENT APPLICATION

2.2 STUDENT AND TEACHER APPROVAL

2.3 PROFILE PAGE

2.3.1 STUDENT PROFILE

2.3.2 TEACHER PROFILE

2.3.3 ADMIN PROFILE

2.4 PIN BOARD

3 VUNERABILITIES

2.1 STUDENT APPLICATION

The application form for a student serves as the first step for a potential student interested in getting into the system. Core information, namely class level, first and last name, birth date, and email, are auto filled in line with the student's first registration. To finalize the application, the student is supposed to supply additional information, e.g., home address, parent or guardian information, prior school information, and school grades. Some fields, namely nationality, blood type, and residential address, are considered compulsory in a bid to ensure the uniform collection of critical personal details.

After filling in all the required fields, the student presents the application form for scrutiny. The administrative office then reviews the information intricately. The student qualifies for approval if all data are true, but if there are discrepancies, the application is subject to rejection. This process ensures that the educational facility accepts only students whose data are confirmed and authenticated, thus upholding the integrity and uniformity in the records.

2.2 STUDENT AND TEACHER APPROVAL

The administration office is in charge of handling the approval process both in students and teachers. After a student applies or a teacher enrolls with his or her details and documents, all the information is thoroughly checked by the administrator. The process, in this case, involves checking the personal information, address, and accompanying records to validate whether the applicant is authentic and meets the requirements of the institution.

If everything is in order, the administrator approves the request and then manually forwards the login credentials through email to either the student or the teacher, thus allowing access to their account. However, if the facts are found to be inaccurate or if the person is found unfit, the administrator disallows the request and removes the application from the database. The process ensures that only authenticated and credible users are allowed access into the system.

2.3 PROFILE HANDLING

2.3.1 STUDENT PROFILE

Student profile gives every student the ability to access and manage their own individual details. Some data, with the exception of first name, family name, email, and birthday, are shown in a read-only format and cannot be edited. But students are able to modify various

information, such as home address, parent or guardian address, and are also able to insert a profile picture. This feature gives versatility on the part of students in having up-to-date information without having any impact on their fundamental identity details.

When a student makes changes and submits the form, changes are retained and realized in the system's databases. This ensures that the student as well as the administration at all times have the most up-to-date and most accurate information. The student profile facilitates keeping reliable records while, at the same time, giving the student a degree of control over certain elements in their information.

2.3.2 TEACHER PROFILE

The profile makes it possible for teachers to access and modify most details belonging to themselves. Some crucial fields, however, like email and birth date cannot be edited in a bid to make sure identity is accurate. Teachers can edit their address, certification, and other information as necessary. Teachers are also capable of adding or substituting a profile picture and professional documents.

To ensure storage safety, the system requires uploaded files to be less than 1 MB in size. Once changes are submitted, all changes are retained in the database and displayed on the platform. This function ensures teachers' professional details remain up to date, something that is valuable both to the school and in academic history.

2.3.3 ADMIN PROFILE

The administrator profile has fewer attributes than student and instructor profiles. The administrator is only allowed access to his or her own profile, and his or her profile shows his or her personal ID and role in the system. The administrator does not have editing privileges, as his or her job is operating the platform, not editing personal details.

This basic configuration keeps the administrator account secure and makes the administrator role straightforward. This also demonstrates administrators are concerned with approvals, announcements, and administration, rather than modifying their own profile details.

2.4 PIN BOARD

The administration staff manages the pinboard by creating and posting official announcements or notices. These could be concerning summer school, activities, events, or any other news that is considered significant for the school. The administrators can also read the comments on every announcement by teachers and students, and they can respond if necessary. This makes the pinboard a strict medium through which the administration regulates the official news.

The role of the teacher on the pinboard is primarily that of reading the announcements posted by the administration. Teachers are also allowed to post comments on any notice, which allows them the ability to question, offer remarks, or post additional information pertinent to their students. This allows the pinboard to serve as more than a source of information, but as an area of scholastic interaction and cooperation.

The student's job is to check the pinboard to know the latest school news. Students can add comments on notices to share their ideas or ask questions, making it a more fun and interactive place. By using the pinboard, students stay linked to school events and know about important updates.

All pinboard announcements are shown in order from newest to oldest. To make it easy to navigate, each page shows 10 announcements, and users can go to the next page to see older notices. This design keeps the pinboard neat and simple for everyone in the school community.