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COLLEGE VOTING SYSTEM

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Abstract-
The College Voting System is a web-based application developed to facilitate transparent, efficient, and user-friendly voting processes within a college environment. It provides a secure platform for students to cast votes for student body representatives while allowing administrators to manage student registrations, validate candidates, and monitor real-time results through visual charts and tables. Built using PHP and MySQL, the system emphasizes usability, accuracy, and integrity in the electoral process.

Keywords:
HTML, CSS, PHP, Jscript

1.Introduction

Traditional paper-based voting systems are often plagued by inefficiencies such as manual counting errors, delays, and security vulnerabilities. This project introduces an online College Voting System to streamline and digitize the voting process, ensuring a secure and transparent mechanism for student elections. The system provides role-based access for administrators and students, enabling easy management of voters and real-time result monitoring.

2. Literature Review

Several institutions have adopted e-voting systems to combat the inefficiencies of traditional methods. Studies have shown that electronic voting enhances participation and ensures accuracy. Projects like "E-Voting Using Blockchain" and "Online Voting Portal for Student Elections" highlight the importance of user authentication, data integrity, and interface design. Our system builds upon these concepts, focusing on simplicity and effectiveness using standard web technologies.

3. System Design

The system architecture follows a client-server model.

- **Frontend**: HTML, CSS, and JavaScript for the user interface. Modal popups are used for user interactions like editing and deleting student records.
- **Backend**: PHP handles server-side logic, including student registration validation, vote casting, and session control.
- **Database**: MySQL is used to store student details, voting data, and election results.
- **Modules**:
    - *Admin Dashboard*: Manage student records, validate candidates, view results.
    - *Student Portal*: View candidates and cast votes.
    - *Voting Chart*: Display results visually using bar/pie charts.

4. Implementation

The system was implemented with the following key features:

- **Student Management**: Admins can add, edit, or delete student records using modal popups.
- **Validation Mechanism**: Admins validate students before they can vote.

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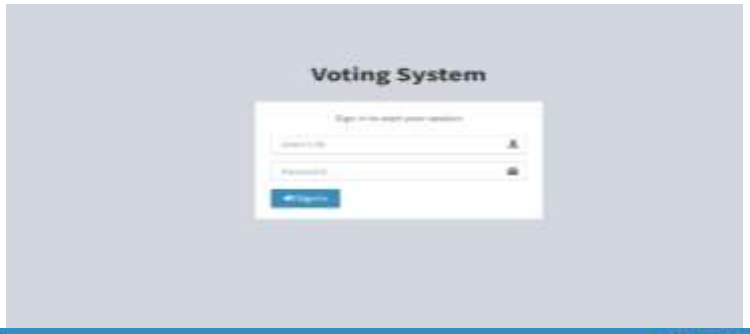
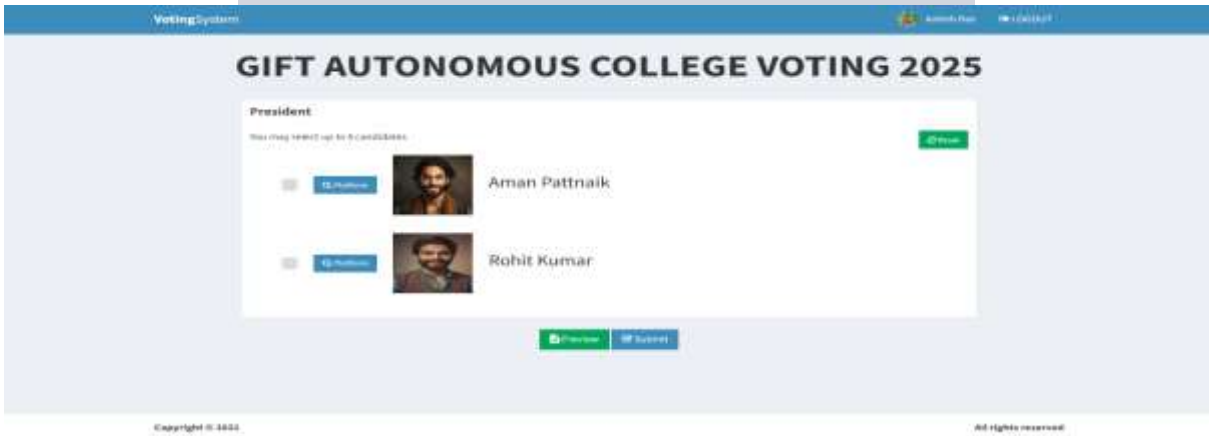
- **Voting Process**: Authenticated students can vote once, with vote status stored to prevent repeat voting.
- **Results Display**: Results are automatically updated and displayed in table and chart form. Security measures like session handling, form validation, and restricted access based on roles were included to enhance the integrity of the system.





5. Results

The College Voting System successfully managed a mock student election with over 100 participants. Admins could manage users effectively, and the voting process was completed without duplication or tampering. The real-time results chart provided a clear visualization of vote distribution. The system proved scalable, responsive, and reliable under simulated stress conditions.

6. Conclusion

The project achieved its objective of providing a functional, secure, and accessible online voting platform for college elections. It significantly reduced the time and human effort required for managing and conducting elections while ensuring accuracy and transparency. Future improvements may include mobile support, OTP-based verification, and integration with college student portals.

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