Archetype Expo 2024

SOFTWARE ENGINEERING LAB
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Digital Electoral System for University Governance

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Abstract
The physical processes involved in election nominations and voting are resource-intensive. This application offers a streamlined solution for conducting elections, particularly with educational institutions. Candidates interested in contesting elections can easily file their nominations and track progress through this platform. Administration personnel such as Deans and Election Chair Members can access candidate nomination information and verify them, eliminating the need for physical availability of the personnel. Voters are just a few seconds away from casting theor votes, leading to voter turnout and reduced costs associated with physical voting methods using ballot papers.
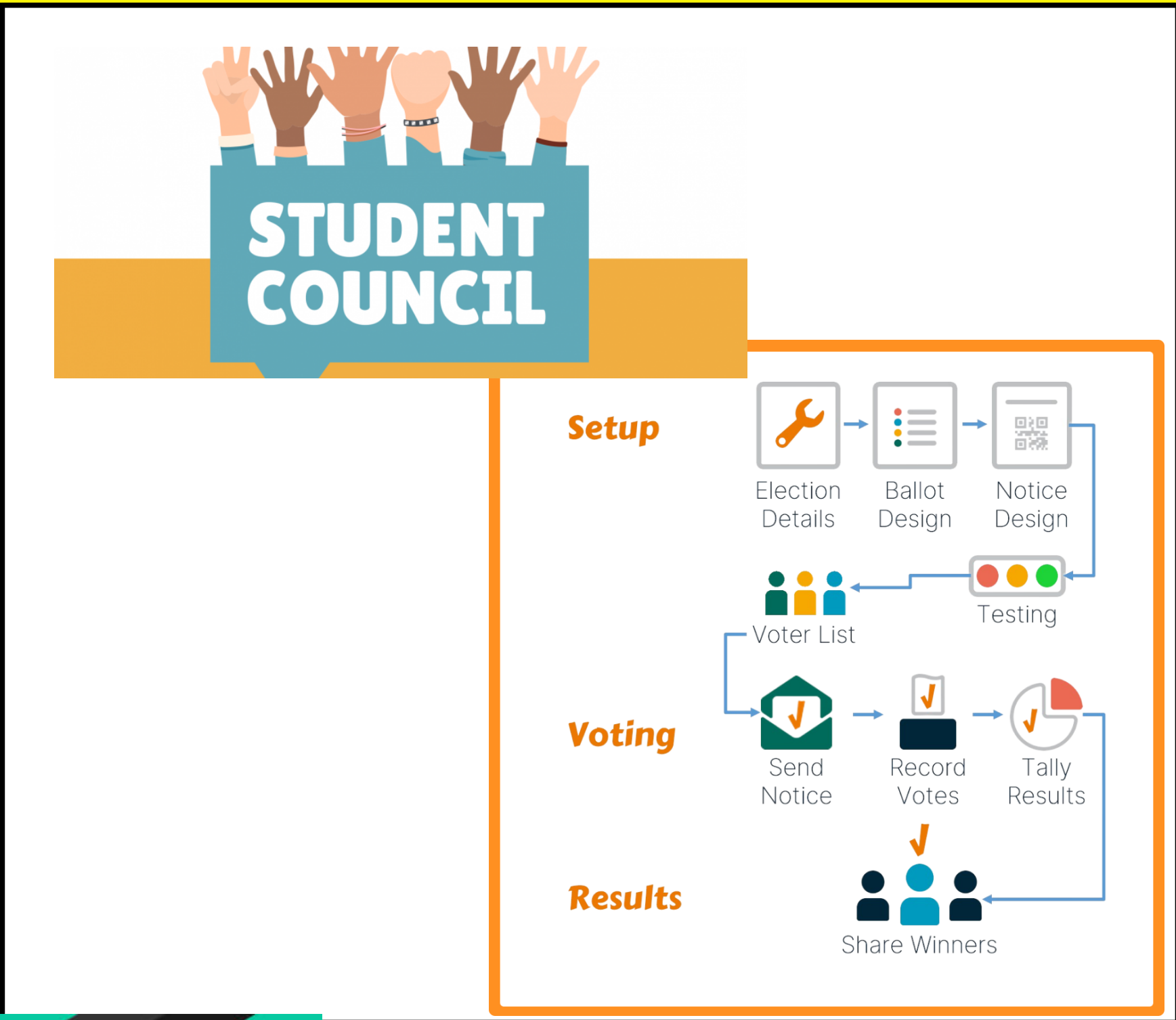
Problem Statement
Develop and implement an efficient digital solution to streamline election processes and reduce resource-intensive tasks.
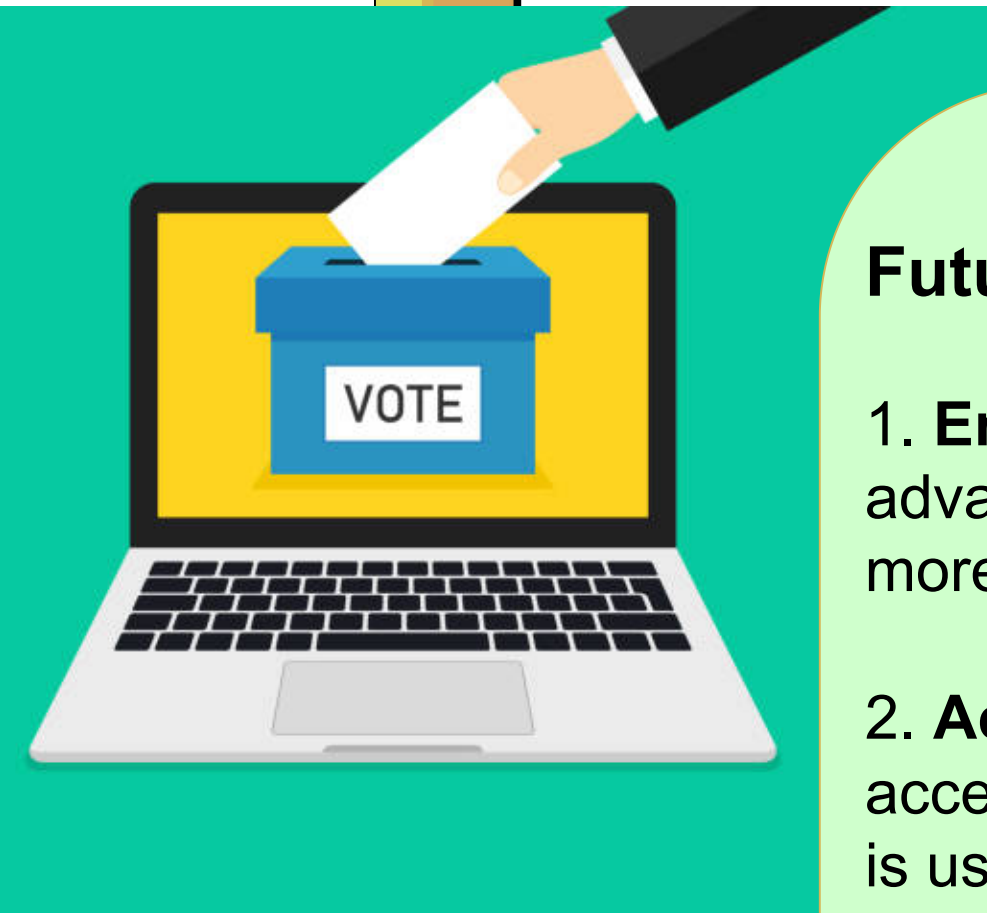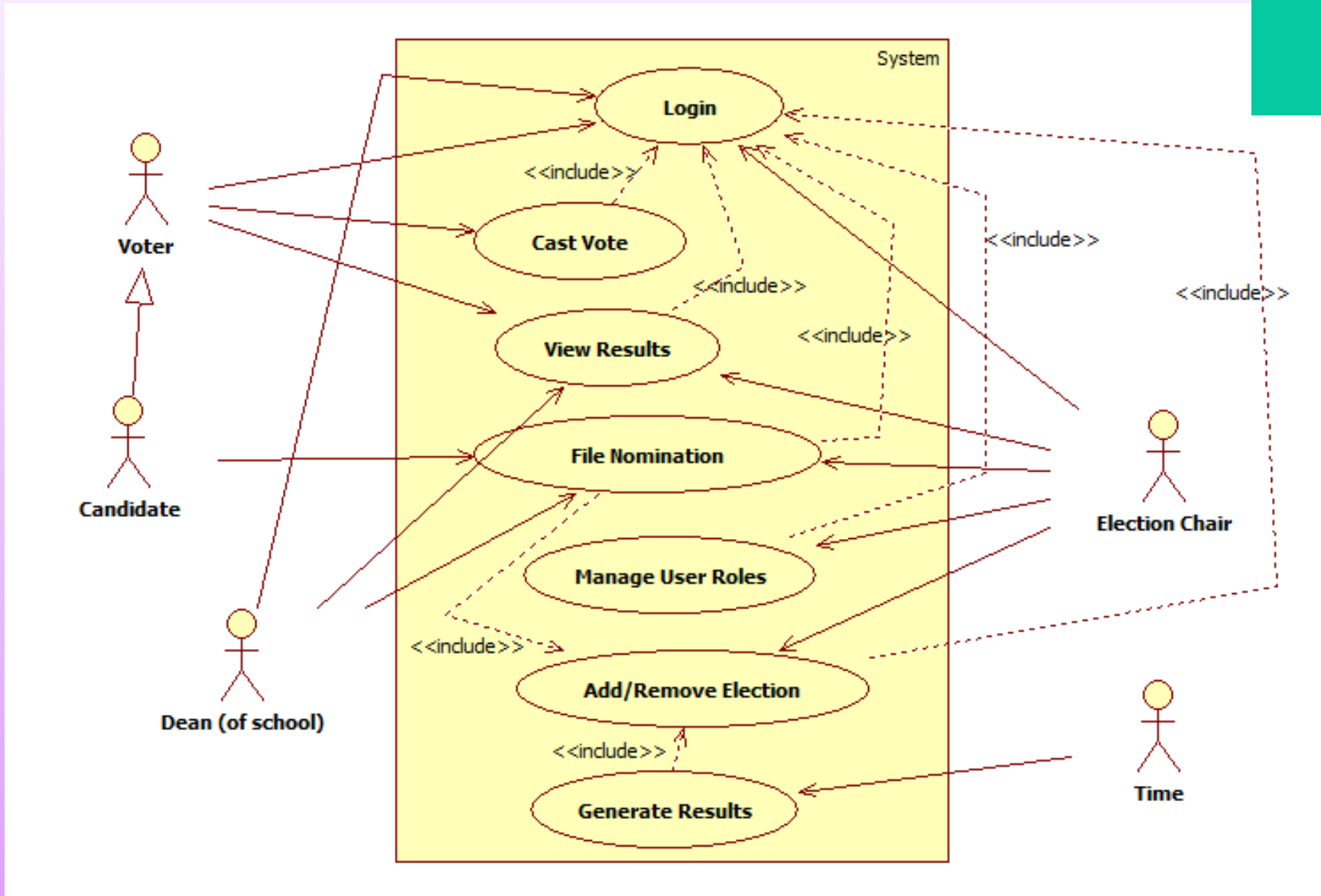
System Design

Tools used for web application:

1. JSP (Java Server Pages)
2. Java Servlets
3. MySQL (DBMS)
4. HTML
5. CSS
6. JavaScript
7. tailwindcss
8. AJAX
9. jQuery

STUDENT COUNCIL

Setup: Election Details, Ballot Design, Notice Design, Voter List, Testing
Voting: Send Notice, Record Votes, Tally Results
Results: Share Winners

Use Case Model

Future Enhancements

1. **Enhanced Security Features:** Implementing advanced encryption techniques or integrating with more secure technology like Blockchain.

2. **Accessibility Improvements:** Developing accessibility features to ensure that the voting platform is usable by individuals with disabilities.

3. **Real-time Monitoring and Reporting:** Introducing real-time monitoring and reporting tools for administrators to track voting trends, identify issues, and generate comprehensive reports.

4. **Multiple Elections Management:** Providing the users an ability to create and manage multiple elctions for various purposes within the institute / organization.

Conclusion

The application provides a seamless user experience, easier nomination process and increase voter engagement after the completion of future enhancements.

References
1. gadmin.uohyd.ac.in/all-notices/
2. www.ugc.gov.in/oldpdf/students_pdf/lyngdoh_committeemhrd2712.pdf

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