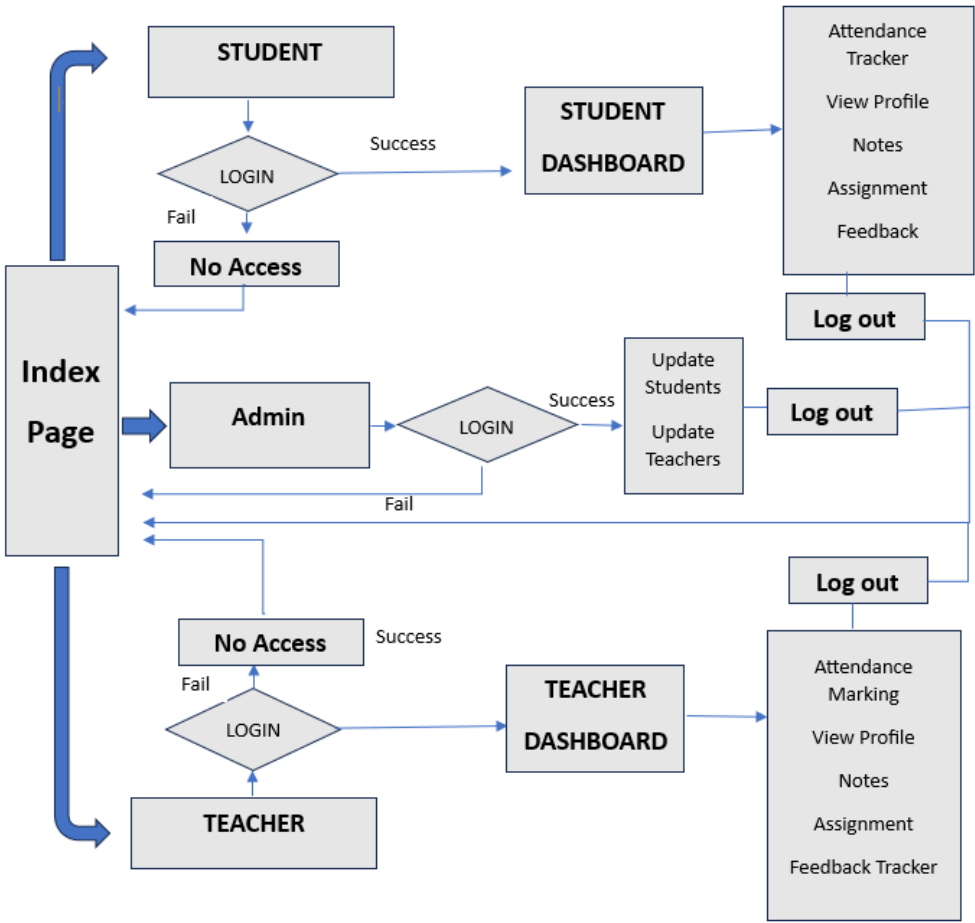




Post Graduate Diploma in Advanced Computing (PG-DAC)

March 2024 Batch

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| Group Number | Group - 1 |
| Guide | Mr. Pankaj Kumar Mahto |
| Group Members | 1. Vikram Bhardwaj 2. Prachi Mathur 3. Dhananjay Singh |
| Title | ACTS-SMS (Student Management System) |
| Objective | 1. Enhance Communication: Facilitate better communication between students and teachers through a centralized platform. 2. Streamline Academic Management: Simplify the process of managing academic tasks such as attendance, assignment submissions, and resource sharing. 3. Increase Accessibility: Ensure that students have easy access to all necessary academic resources and information from any location. 4. Improve Feedback Mechanisms: Allow students to share their learning experiences and provide feedback on teaching, helping educators refine their methods. 5. Secure Data Handling: Ensure that all user data, including login credentials, attendance records, and feedback, are securely handled and stored, leveraging Spring Boot's robust security features. |

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| <p>Abstract</p> | <p>The ACTS-SMS (Student Management System) is an innovative web application designed to better the educational experience by providing tailored solutions for both students and teachers.</p> <p>Bridging the gap between students and educators, this system fosters a more connected, efficient, and productive learning environment, driving academic success for all.</p> <p>Developed using Spring Boot for the backend and Thymeleaf for the frontend, the system provides distinct login portals for Students, Teachers and Admin. Students can easily access their profiles, monitor attendance, and provide feedback to their teachers. Admins, have the ability to manage students and teachers lists, update and modify them. Teachers, have the options for marking attendance and tracking pseudo-Anonymous feedbacks.</p> <p>Options for resource sharing is also provided which can be utilized in future prospects of this system.</p> |
| <p>Project Architecture</p> |  <pre> graph TD Index[Index Page] Student[STUDENT] --> LoginS{LOGIN} LoginS -- Success --> StudentDash[STUDENT DASHBOARD] LoginS -- Fail --> NoAccessS[No Access] NoAccessS --> Index Admin[Admin] --> LoginA{LOGIN} LoginA -- Success --> AdminDash[Update Students Update Teachers] LoginA -- Fail --> Index Teacher[TEACHER] --> LoginT{LOGIN} LoginT -- Success --> TeacherDash[TEACHER DASHBOARD] LoginT -- Fail --> NoAccessT[No Access] NoAccessT --> Index StudentDash --> LogoutS[Log out] AdminDash --> LogoutA[Log out] TeacherDash --> LogoutT[Log out] LogoutS --> Index LogoutA --> Index LogoutT --> Index subgraph StudentDashMenu [] direction TB AT[Attendance Tracker] VP[View Profile] N[Notes] AS[Assignment] F[Feedback] end subgraph TeacherDashMenu [] direction TB AM[Attendance Marking] VPP[View Profile] NP[Notes] AT2[Assignment] FT[Feedback Tracker] end </pre> <p>The diagram illustrates the project architecture of the ACTS-SMS. It features an Index Page as the central hub. Three user roles are supported: STUDENT, Admin, and TEACHER. Each role has a dedicated login process. For students, a successful login leads to the STUDENT DASHBOARD, which includes features like Attendance Tracker, View Profile, Notes, Assignment, and Feedback. For Admins, a successful login leads to a dashboard for updating students and teachers. For teachers, a successful login leads to the TEACHER DASHBOARD, which includes Attendance Marking, View Profile, Notes, Assignment, and a Feedback Tracker. All dashboards have a Log out option that returns the user to the Index Page. Failed login attempts also redirect the user back to the Index Page.</p> |

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| Application | <ol style="list-style-type: none"> 1. Admin has Access of inserting and updating students and teachers 2. Separate Dashboards for students and teachers. 3. Teachers can mark attendance and track there feedbacks and average ratings 4. Students can submit pseudo-anonymous feedbacks for the teachers and can track their overall attendance and dates they were present |
| Technologies used | <ul style="list-style-type: none"> ▪ Designing End: HTML5, CSS3, Bootstrap 5. ▪ Development End: Spring Boot(3.2.8), Spring MVC, Hibernate, Servlet, Thymeleaf. ▪ Data Base : MySQL. ▪ Web Server: TOMCAT Web Server. ▪ Tools : STS 4(JDK:17), MySQL Workbench 8.0 CE, Browser |
| Scope of Work | <ol style="list-style-type: none"> 1. We can Add Library Portal to this application to provide information to students about the availability of books. 2. Targeted Resource sharing and submissions by students. 3. Tests and Mocks are good way to know the preparedness of an individual for the final exams, we can have those features within the ambit of our application. Students would even be able to dynamically create their own Mocks to practice for any important topic 4. Expanding the system into a mobile application, allowing students and teachers to access the platform on-the-go, ensuring continuous engagement and learning outside the traditional classroom environment. 5. Incorporating real-time communication features like chat, video conferencing, and discussion forums, fostering better interaction and collaboration between students and teachers. |
| Project Timelines (Total:120 hours) | <p>Time plan of the Project:</p> <ol style="list-style-type: none"> 1. Abstract 2. Collection of information and data 3. Applying Software Engineering Methodologies 4. ER Diagram and Database 5. Coding 6. Code Testing 7. Project Report |