**Introduction**

In an age marked by technological advancements, our focus turns to revolutionizing the educational landscape through the implementation of RFID student tracking systems. These systems not only enhance the safety of students within educational institutions but also contribute significantly to streamlining attendance processes, ensuring a more efficient and secure learning environment. The paramount importance of student safety is underscored as RFID systems provide a robust mechanism to monitor and authenticate students' entry into schools, colleges, and universities.

Our project centers on the development of a RFID attendance system with a web-based front end using React, coupled with Firebase as the database solution. This innovative system caters to three distinct user roles: the administrator, parents, and students. The administrator takes the helm in shaping the system's functionality by adding class schedules, fostering a structured and organized approach to attendance tracking.

For parents, the system offers a valuable tool to effortlessly access and review the attendance reports of their children. This real-time insight into their wards' attendance ensures parents stay informed and engaged in their educational journey. Simultaneously, students gain visibility into their attendance metrics, including the percentage of classes attended, empowering them to take charge of their academic responsibilities.

By leveraging React for the web-based interface and Flutter for the mobile application (accessible to parents and students), our project amalgamates the power of modern front-end technologies to deliver an intuitive and user-friendly experience. The adoption of Firebase as the backend database solution ensures seamless data management and real-time synchronization, contributing to the system's reliability and efficiency.

As we delve into the development of this RFID attendance system, our commitment extends beyond meeting the requirements of a final year project. We recognize the transformative impact this technology can have on educational institutions, promoting a safer, more efficient, and technologically advanced learning environment. Through meticulous planning, development, and adherence to best practices, our aim is to set a new standard in RFID-based attendance systems. This project not only serves as a testament to our technological prowess but also aspires to contribute to the ongoing evolution of educational technology, fostering a positive and lasting impact on the educational experience of students and their families.

**Purpose**

The purpose of the RFID attendance system project is to revolutionize and enhance the educational experience by implementing a robust and efficient student tracking system. By employing RFID technology, the system ensures the safety of students while also simplifying and optimizing attendance management. With a web-based front end developed in React and a Firebase database, the project caters to administrators, parents, and students, offering a seamless and user-friendly interface. The ultimate goal is to provide real-time attendance insights to parents, empower students to monitor their attendance, and establish a technologically advanced and secure educational environment. Through this project, we aim to contribute to the evolution of educational technology, setting new standards in attendance tracking and fostering positive outcomes in the learning process.