

PROJECT 1:

QR-Based Canteen Token System

Problem:

The traditional token-based system in the CUK collage canteen was prone to fraud. Students were purchasing tokens online and using them multiple times, allowing unauthorized access to free meals. This led to revenue loss and operational inefficiencies.

Solution:

Developed a **secure, QR-based digital token system** to eliminate fraud and ensure an efficient food distribution process.

Technologies: React Native, MongoDB, Node.js

- Designed and implemented a **secure, fraud-proof QR-based token system** for the CUK canteen, eliminating unauthorized online token purchases.
- Developed **separate admin and vendor applications** to streamline food distribution and ensure token authenticity.
- **How it works:**
 - **Admins** scan the QR code, verify the token, and select the ordered food.
 - **Vendors** scan the verified QR code to fulfill the order, ensuring seamless transactions.
- **Impact:** Achieved **100% fraud prevention**, enhanced transparency, and optimized the food distribution process.
- **30% increase in business revenue** due to fraud elimination and improved transaction efficiency.
- **Fast & optimized operations**, reducing wait times and manual errors.

PROJECT 2:

CUK Sports Management System

Problem:

CUK lacked a proper system for managing sports activities and tracking student participation. The university relied on Google Forms for data collection, which was inefficient and lacked real-time tracking.

Solution:

Developed a **web application** to centralize and streamline sports management, allowing:

- **Student activity tracking** – Maintains detailed records of student participation.
- **Form tracking system** – Improves form submission, status updates, and approvals.
- **University-wide accessibility** – Ensures both students and the university can efficiently manage sports-related activities.

Technologies: React, nextJs, MongoDB,

- Developed a **web application** to streamline sports management and student activity tracking at CUK.
- Replaced the inefficient **Google Forms-based system** with a **centralized digital platform**.
- Implemented a **form tracking system** to manage submissions, approvals, and status updates efficiently.
- Enabled **real-time student record management**, improving accessibility for both students and university administration.
- Improved **operational efficiency**, leading to better decision-making and increased student participation in sports activities.