



PRAVESH

SMART ENTRY-EXIT SYSTEM

Transforming the Way You Enter-Exit the College

NEXT



PRAVESH

Presented by **OnlyPans**

OUR TEAM

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PROBLEMS

1. Time-Consuming

Process :- Manual data entry prone to errors and time-consuming.

3. Verification Issues :-

No automated system to cross-check student identity instantly.

2. False Entries :-

Lack of strict verification allows unauthorized or false entries.

4. Poor Data Management :-

Difficulty in managing and maintaining accurate records.



SOLUTION!

PRAVESH

Automated Entry

Generates unique QR codes, eliminating manual entry delays.

Efficient Data Management

Logs stored in an SQL database for admin monitoring .

Fraud Prevention

Node.js backend (Strapi) ensures only valid entries.

Secure Verification

REALTEK-CAM with Arduino scans and authenticates QR codes.



PRAVESH

FEATURES

- **GPS-Restricted QR Codes** – QR generation limited to gate proximity.
- **Screenshot Prevention** – Screenshots disabled to prevent sharing of QR codes .
- **Time-Limited QR Codes** – A new QR code has to be generated preventing it's duplication.
- **Encrypted QR Codes** – Hashed & encrypted to prevent tampering.
- **QR Logging & Anomaly Detection** – Logs scans with timestamps; alerts on unknown devices.

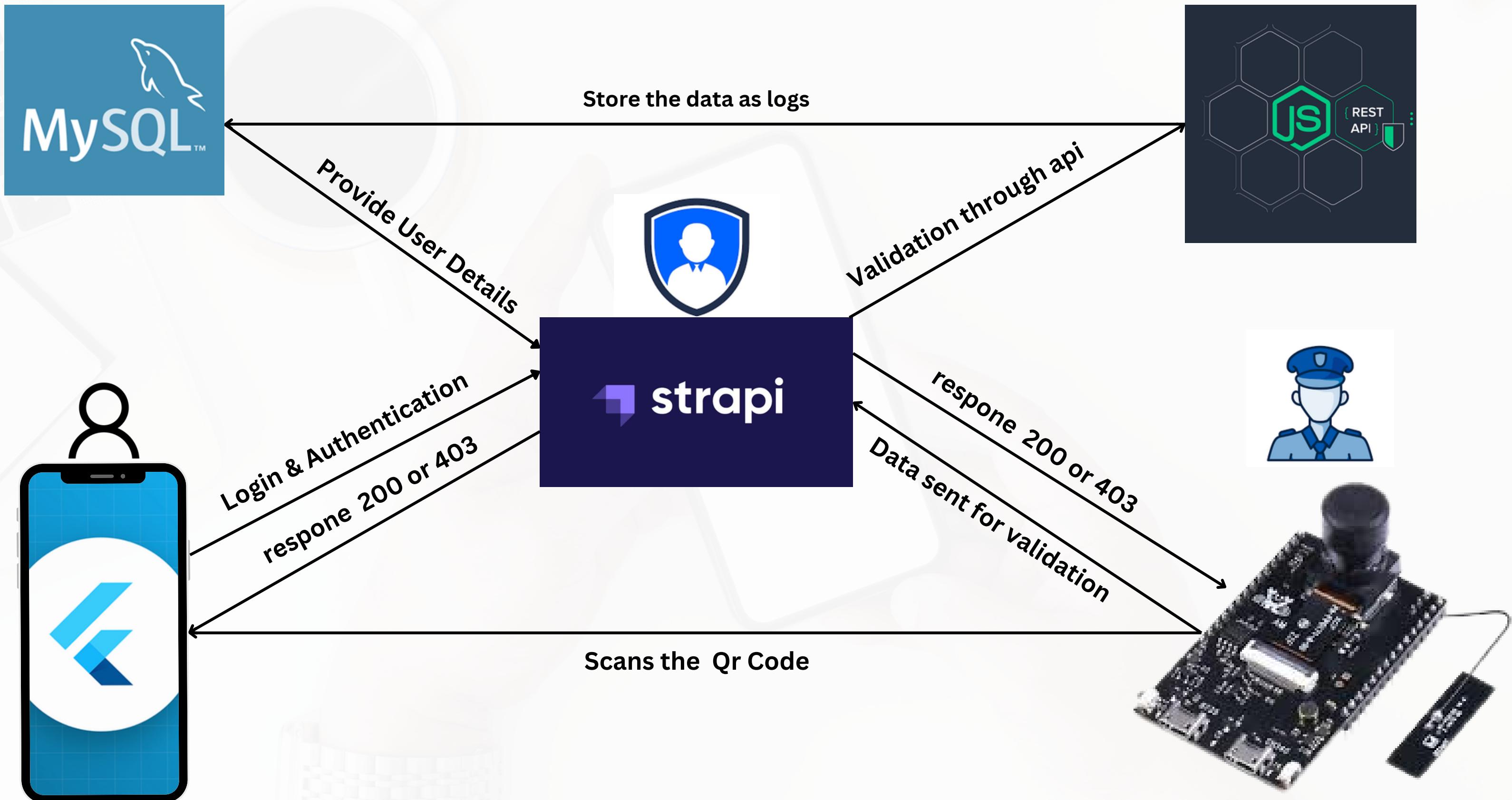
- QR Code Generation

- Fast And Simple

- Automated Data entry

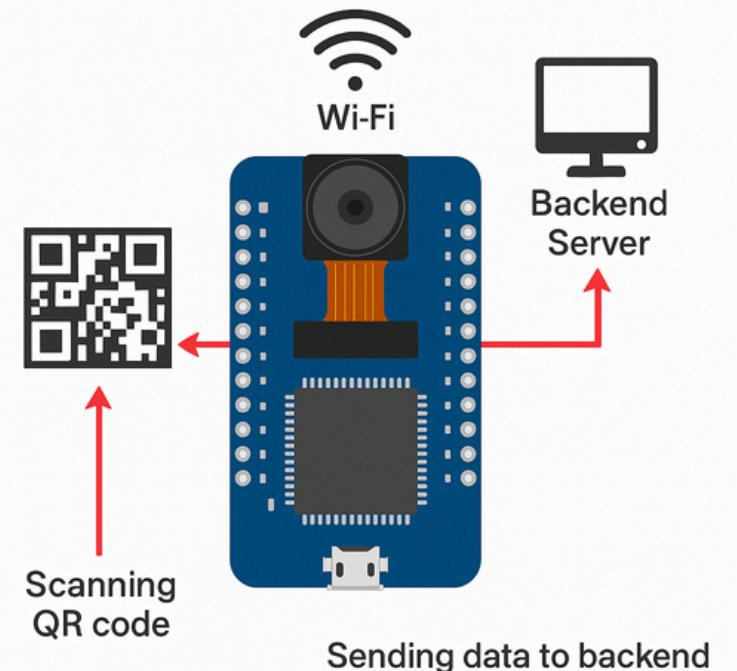
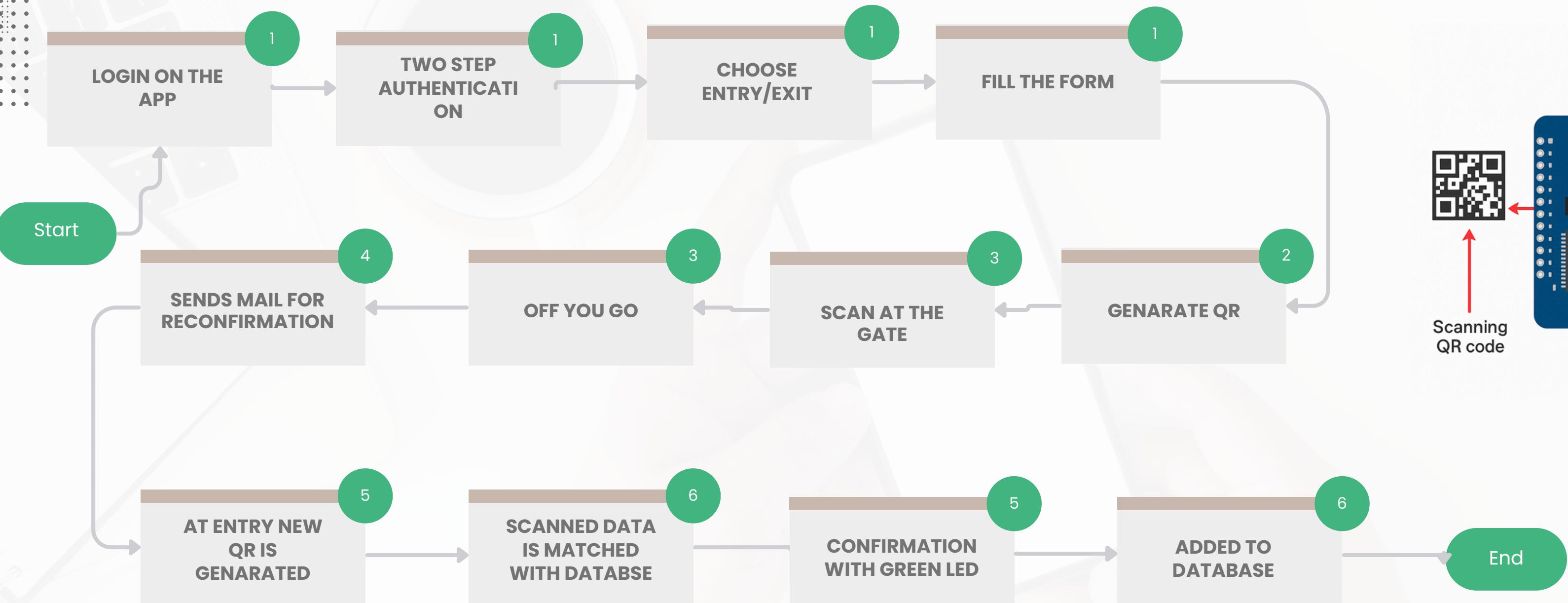
- Secured Verification

SOLUTION ARCHITECTURE



APP WORKFLOW

HARDWARE



Comprehensive Overview

FEASABILITY

- **Financial:** Lower cost and a simple mobile app.
- **Locally Hosted:** Won't require additional cost for admin domain and hosting.
- **Operational:** Automates logging, enhances security, and integrates with admin systems.

SCALABILITY

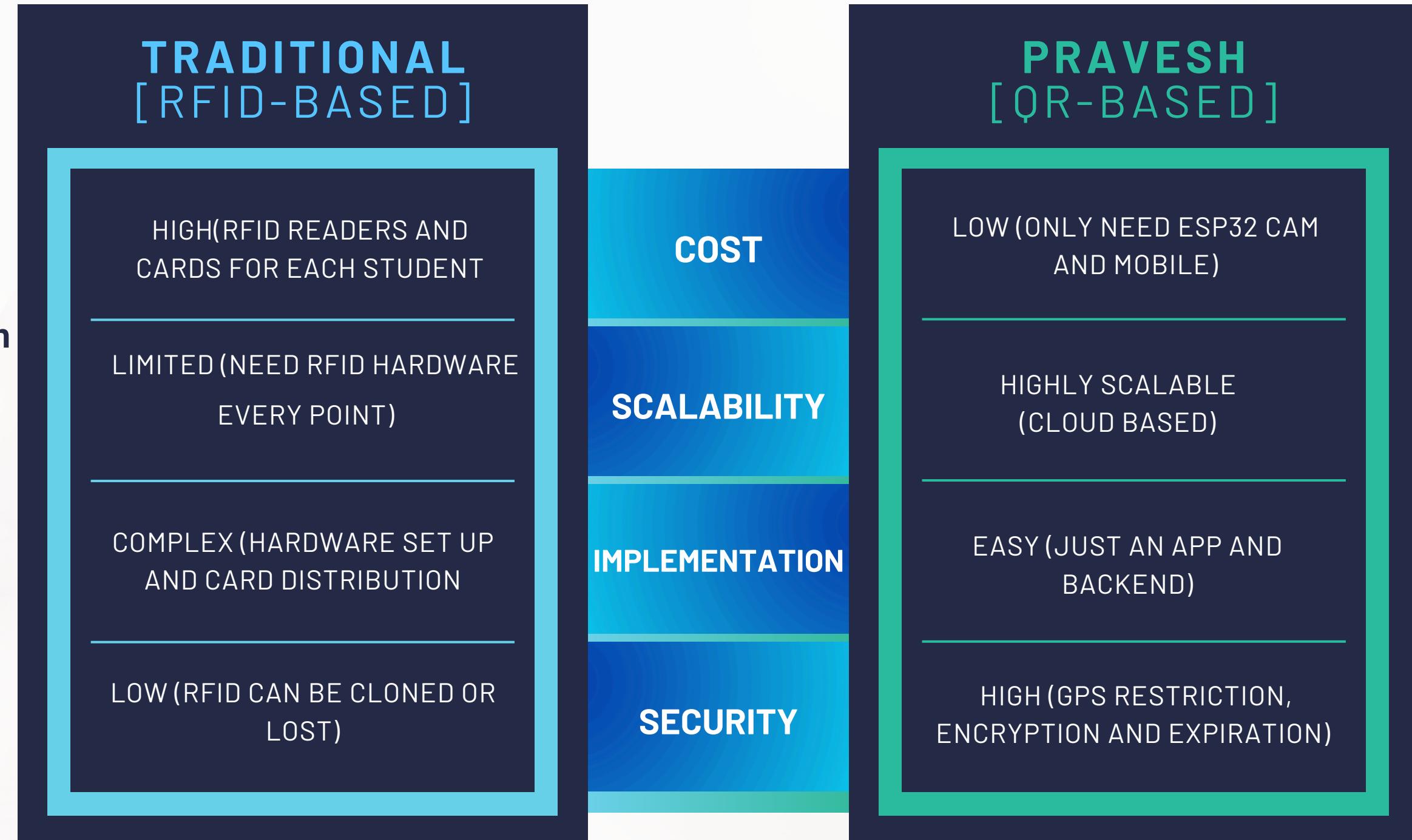
- **Backend:** We can easily scale our backend to handle a large amount of users
- **Frontend:** Optimized Flutter app for real-time updates.
- **Hardware:** Multiple QR-code scanners with local caching for offline functionality.

FUTURE ASPECTS

- **Visitor Management:** We aim to also integrate visitor management with PRAVESH.
- **Offline Mode :** Design the system to also work while offline.
- **Scalability:** Integration with larger campus security and attendance systems.

CONCLUSION

- PRAVESH revolutionizes college entry-exit by merging security, efficiency, and automation.
- Our system ensures seamless verification through encrypted, GPS-restricted QR technology.
- With scalability and cost-effectiveness, PRAVESH sets the foundation for smarter campus management.



Thank You

TEAM OnlyPans