Meter Reading Application (MRA) - FAQs & Technical Specifications

1. Frequently Asked Questions (FAQs)

- Q: What platforms is the MRA mobile app available on?

A: The MRA mobile app is available on Android. iOS support can be added on request.

- Q: Does the app work offline?

A: Yes, meter readings can be stored offline and synced once the device is back online.

- Q: How secure is the data transmission between the app and backend?

A: Data is transmitted using HTTPS with token-based authentication and CSRF protection.

- Q: Can this application be integrated with existing ERP systems?

A: Yes, MRA integrates seamlessly with SAP via OData APIs and can support other ERP systems with customization.

- Q: Is there support for multiple vendors or field agents?

A: Yes, both the admin and vendor portals support multi-user and multi-role configurations.

- Q: How is OCR implemented in the app?

A: OCR is custom-implemented for real-time meter reading, without relying on Google ML Kit.

- Q: Can I generate printable bills from the app?

A: Yes, the app supports spot billing and real-time printing using compatible printers.

2. Technical Specifications

Below are the core technical specifications of the MRA system:

- Mobile Platform: Flutter , React Native (Cross-Platform: supports Android and IOS)
- Backend API: PHP-based custom backend (Interacts with SAP)
- SAP Integration: OData Services using Basic Auth and CSRF Tokens
- Authentication: Bearer Token (App), Basic Auth (SAP)
- OCR Engine: Custom-developed for number extraction
- Printing: Supported via Bluetooth/wireless printers
- Database: SAP as primary data source; optional MySQL for logging
- Security: HTTPS, Role-Based Access, Token Auth, CSRF Protection
- UI/UX: Modern red-themed interface with responsive design
- Reporting: Available via admin portal with export options