



King Digital Recharge Ltd. (KDRL) - Portfolio



We Think & Work Digitally.

Legal Name	King Digital Recharge Ltd.
Legal status	Limited Liability Concern (Registered under the Companies Act, 1994)
Year of Registration	2012, Registration No. C-105695/12
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Trade License	No. 046796 e-Trade License No.: TRAD/DNCC/116214/2022
VAT Registration Number	BIN: 001930429-0402 Old BIN: 19031084354
TIN	e-TIN: 531356386996/Circle-321 (Companies)
Number of years of overall experience in ICT	Above 12 years (December 2012)
Number of IT professionals	15 Professionals

Areas of Operation

- ✓ Software development, customization, implementation, maintenance, operation, support and servicing
- ✓ ICT Infrastructure Development: Data Centre and Disaster Management Site – Design, Implementation and Management
- ✓ Design, Implementation and Management of Networking, IT Security, Cyber Security, Server, Storage, LAN, WAN and Wireless LAN
- ✓ ICT Supply and Services
- ✓ ICT Consultancy Service and Project Management
- ✓ ICT Skill/ Competency Development: Training and capacity building on ICT

Technology Competency

KDRL is always aligned with advanced technologies in ICT using different platforms, methods and techniques, databases and programming languages and tools.

<i>Operating System</i>	Windows, Linux, Android and iOS
<i>Language and Scripting</i>	Java, Dart, Python, C# Dot Net, XML, SQL, PL SQL, HTML, CSS, Angular JS, Required JS, Bootstrap, JavaScript, jQuery, Shell (bash), JSON
<i>Database Management Systems</i>	PostgreSQL, Oracle, MS SQL, MySQL, SQL Lite
<i>Framework and Pattern</i>	Entity Framework, Hibernate, Spring, Strut, Dot Net Framework, MVC, n-Tier MVC (Spring, J2EE), Flatter
<i>Architecture</i>	Service Oriented Architecture (SOA), Restful
<i>Studio/ IDE</i>	Eclipse, AndroidStudio, Xamarin Studio, Xcode, PgAdmin
<i>Source-code editor</i>	VisualStudioCode/ VS Code
<i>Version Controlling</i>	Git/ Subversion Git
<i>File Transfer Tool</i>	WinSCP, Putty
<i>Testing Tools</i>	Junit, JMeter, Selenium, Load Runner
<i>Other Tools</i>	Microsoft Office Suit, Microsoft Visio, Microsoft Project Profession, MS Paint, Photoshop, Adobe Illustrator, Tomcat, IIS, Apache Server, Java WebSocket, JVM, JRE

Product and Service

KDRL developed following products/ services:

- ✓ Remote Device Management System
- ✓ Education Management & Information System
- ✓ Bio-metric based Attendance System
- ✓ Automated Integrated System (AIS) software in the form of a website, mobile applications and APIs

Short Description of Products & Projects



Remote Device Management System

Remote device management (RDM) is an international standard software. It can recognize with few names like remote computer management software, or remote access software or remote control software.

One can remotely control one computer from another. Remote control means you can take over the mouse, keyboard, task manager etc. of the computers connected to your computer, and you can use the connected computers just like your own computer.

RDM enables you to remotely administer the connected computers (called the Client Computer) resided across the office premises from your work station (called the Agent Computer). It requires a software (called the Client) to be installed on the client computers that you want to administer. And on the top of all the client computers, another software (called the Agent) to be installed on the agent computer from where you can administer the client computers.

The concerned officer will be able to operate/ control the computers within the LAN. The features of RDM software are as follows:

Remote Device Monitoring:

- **Live Monitoring** - Agent can view client PC/ Laptop.
- **Remote Control** - Agent can view client PC/ Laptop and can control the activities (such as closing the program, window, opening new folder/ file, deleting folder/ file etc.)

Remote Device Control:

- **Task Manager Enable/ Disable** - Agent can enable/ disable the task manager of the client PC/ Laptop.
- **Program Control** - Agent can restrict the running of certain programs installed in the client PC/ Laptop.
- **Work Station Lock/ Unlock** - Agent can lock/ unlock the monitor of the client PC/ Laptop.

- **One-way Messaging** - Agent can send message to the client PC/ Laptop.
- **Both way Messaging** - Agent can send message to the client PC/ Laptop where the user of the client PC/ Laptop must response; otherwise, the message window will always stay over any working window, even user cannot move the position of message window.
- **Video Recording and Screenshot of Work Station** - Agent can start capturing video and screenshot of the client PC/ Laptop continuously.
- **Website Control** - Agent can restrict the client PC/ Laptop to browse certain web sites.
- **Volume Control** - Agent can control the volume (increase, reduce or even mute) of the client PC/ Laptop.
- **CD-DVD Disable/ Enable** - Agent can enable/ disable the CD/ DVD ROM of the client PC/ Laptop provided that the Client software holds the administrative privilege.
- **Removal Disk (USB) Disable/ Enable** - Agent can enable/ disable the USB drive of the client PC/ Laptop provided that the Client software holds the administrative privilege.
- **Video Recording and Screenshot of Agent** - Agent can start capturing video and screenshot of the own PC/ Laptop continuously.



Education Management & Information System

Education Management and Information System (called emis360) refers to the administration of the education system in which human, material resources and processes are combined to form educational structures to strategize, plan, implement and oversight the execution of educational functions. Education is the equipping of knowledge, skills, values, beliefs, habits, and attitudes with learning experiences. The education system is an ecosystem of professionals in educational institutions including ministry, directorate, boards, universities, local government bodies, agencies and education enhancement projects and programs. The education system consists of decision makers, research bodies, principals, teaching staffs, non-teaching staffs, administrative personnel and educational professionals working together to ensure quality education. At all levels of the educational ecosystem, management is key requirement involving planning, organizing, implementation, review, evaluation and integration of educational institutes.

Effective Education Management System is important for teaching-learning and emis360 can help any educational institute with its user friendly solution to ease the process. emis360 is a complete solution align with the requirements of educational institutes and can be customized as per need. emis360 is built to support end-to-end operations through its flexible and user friendly features.

emis360 manages all activities of educational institutes from admission, regular class activities, examination, promoting to next level etc. including teacher, staff, parents and resource management of any schools and colleges.

It is a web based application accessible at anytime from anywhere by any authorized user. The application provides a set of features including:

- Managing education related activities of educational institutes

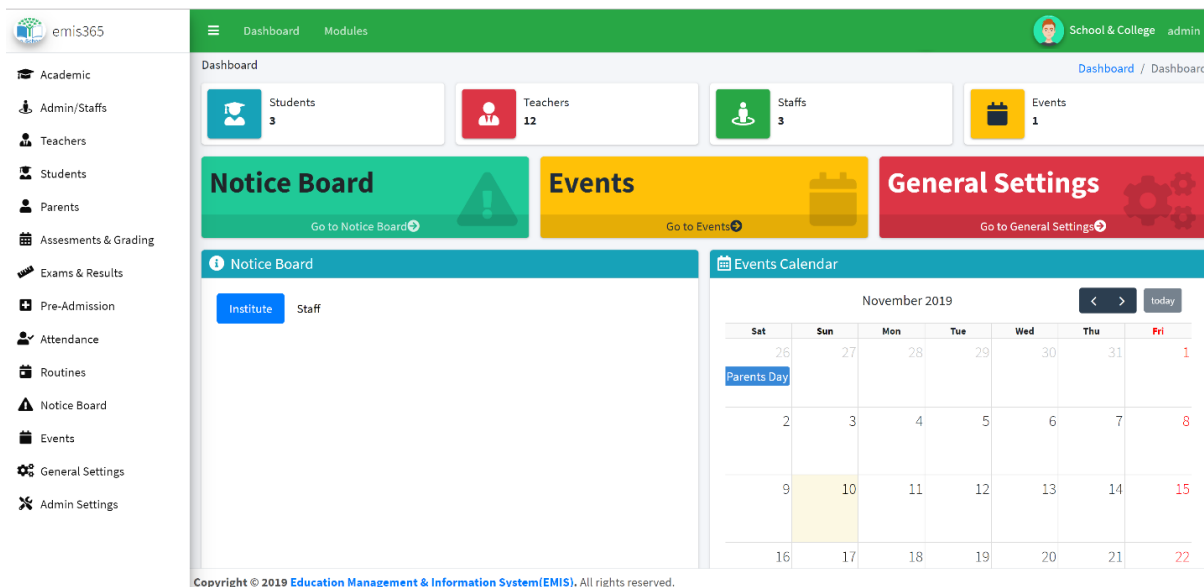
- Streamlining and customizing academic and administrative functions
- Bringing teachers, students, parents and staffs under one umbrella
- Information dissemination from one single point source
- Integrated reporting and data warehouse analytics for visualizing educational information from one single central platform
- From admissions to alumni and everything in between, discover how to innovate institution's student & learning activities
- Make education industry more efficient and more effective

It can be hosted to a domain (say, emis360 domain). Any educational institute can become part of emis360 platform through subdomain (like pbdc.emis360.com). The application allows authorized Admin/Staff, Teacher, Student and Parent to access their concerned functions.

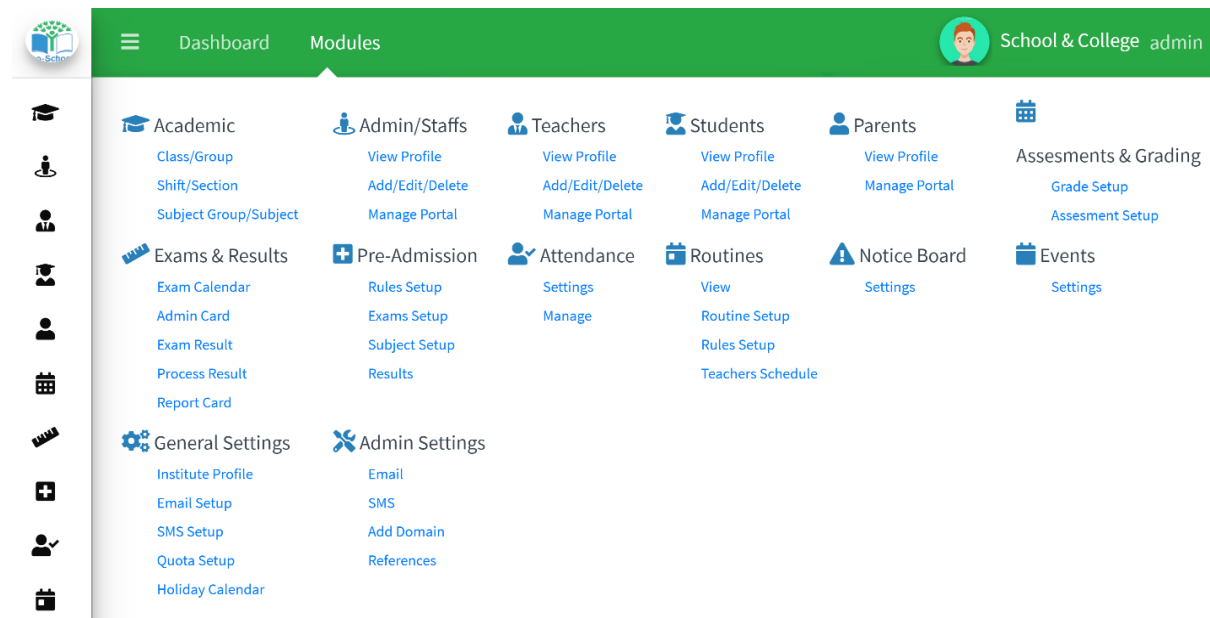
Portal/Dashboard:

Clear communication between teachers, students and parents is vital to the learning process. emis360 helps develop strong bonds between all parties through forums, portals, and other interactive elements. Parents and students have tools that promote easy communication among themselves, teachers and administrators. Everyone related with institute has their own portal/dashboard to view and manage personal and academic information. Students, parents, teachers and administrators can manage their needs with emis360.

Interactive Dashboard



Modules and Sub-modules



Academic Module:

The basic elements like Class, Group, Shift, Section, Subject Group and Subject of certain educational institute, optional subjects, co-curriculum activities (CCA) can be configured and setup easily and effectively with this module.

Admin/Staff Module:

This module captures the records of admin/staff personnel of an educational institute and enables them to access the application. User having access to this module is able to add/edit others stakeholder (teachers, students and parents) of the system and manage their permissions.

Teacher Module:

This module captures teachers' information in details including subject, class, shift etc. allocated to teachers of an educational institute and enables them to access the application. Teachers will be able to take students attendance very easily and quickly and communicate with parents/guardians through SMS/email with notes.

Student Module:

This module provides necessary information about students within the institution at the click of a button. Typically, each student will have a profile, in which their grades, attendance and vital information (such as the emergency contact, address, blood group etc.) are available. This helps schools and parents to access those information whenever required.

Parents Module:

This module contains parents' profile. Using the portal assigned to the parents, they can view attendance, report cards and other necessary information of their sons/daughters and can communicate with the institute easily.

Assessment & Grading Module:

As assessment (Class Test, Assignment, Presentation, Half Yearly/Annual/Practical Exams etc.) and grading process vary over educational institutes, this module provides provision to configure assessment system and grading rules for every class of any educational institute.

Exams and Results Module:

With this module, exam calendar, entrance card to exam hall/room/center, examination record, result processing and necessary functions can be executed. Compiling a student's report card at the end of the year can be a time-consuming process. A student's grades throughout the year have to be taken into account, the correct weightage assigned to each and then the final grade calculated. emis360 can simplify the entire process. Since grades are automatically recorded in the application, final grade can be prepared instantly. The auto-generated report cards can also be sent immediately to parents and students.

Pre- Admission Module:

Pre-admission module makes admission processes simple. User can be able to setup quota, admission rules, admission subjects and priorities, input admission results, process result and prepare merit/quota list easily by using emis360 features.

Online admission forms are very easy and convenient for students to apply to the institution. User will be able to incorporate newly admitted students' information into the concerned institute's emis360 easily.

Attendance Module:

Tracking a student's attendance is one of the most important features of any institute management software. Taking student attendance using emis360's attendance module is very easy. A parent or student can apply for a leave directly through the dashboard so that the teacher gets notified immediately. Parents can view their children's attendance with teacher's comments with attendance status summary in attendance report. Teachers can send SMS/email notification to parents/guardians in case of absent. This can be a huge time-saver for teachers as they no longer have to actively maintain and update student attendance records. It also ensures greater accuracy in the data, since the whole process is automated. It also keeps the provision of integrating biometric based attendance.

Routines Module:

This module mainly contains rules to create routine of each class and also class schedule of the teachers.

Notice Board Module:

Any notice (such as Exam Notice, Holiday Notice etc.) can be circulated to the Dashboard of the application with this module. Notice board is segregated for students, parents, teachers, staffs and institution itself. It is very easy to setup notices.

Events Module:

Events (such as Program in 21st February, Annual Sports Program, Farewell Program etc.) can be furnished with this module. It's very easy to setup events. Events will be shown in calendar with events details.

General Settings Module:

This module enables the users to keep Institute's Profile in the application. The rules for setting up email, SMS, quota and holidays can also be configured with this module.

Messaging:

Generally, whenever an important announcement has to be made to students or parents, a school's admin staff needs to personally call each individual or send emails to them. With emis360, however, this manual work is no longer necessary. emis360 features enables the admin users to simply select the group they want to send a notification by SMS or emails. emis360 also allows users to send notifications to selected parents, specific grades obtained students within a school, parent groups, etc.

emis360 is an interactive, user-friendly and process centric educational platform and can be scalable to any number of educational institutes. It is a single centralized system capable of comprising and streamlining educational activities of institutes (Schools and Colleges) and can be able to provide integrated educational information to the stakeholders.



Bio-metric based Attendance System

It is a solution that has proven to deliver reliable fingerprint registration, for small and large scale purposes.

Our biometric technology is designed to capture the highest quality image templates. It integrates with enrollment software and works with a range of scanners, from single to multi-finger. It provides all biometric-related functions, including real-time feedback to the operator to ensure the data being registered is of the highest standards.

- Easy to integrate - This system can be deployed either as a stand-alone or online system, it can be embedded or connected to other systems in order to meet your specific needs.
- Quick and Accurate - It only takes seconds to scan an employee's fingerprint. This system can enroll/register fingerprints, photo and personal information as well as documents without any hassle.
- Highly Customizable - This system has been designed in such a way that, it can be customized easily based on customer's requirement.
- Highly Scalable - Highly scalable system that is fit for small to large scale purposes.

Features:

- Registration of employees in both biometric device and web based application
- Holiday calendar entry/ update
- Leave / duty in holiday entry / update
- Meeting schedule entry / update
- SMS dispatching to alert / notify about meeting, duty
- Dashboard with status of Attendance, late, absent, leave etc.



An Automated Integrated System (AIS) software in the form of a website, mobile applications and APIs – Web and Mobile App

An Automated Integrated System (called AIS) software is developed and implemented in the form of website, mobile applications and API for real-time dissemination of weather and climate products to the key stakeholders including feedback facilities from the users.

AIS collects weather and climate products, forecast, alert/ warning and weather related information/ data from IFMSS/ FPS and concerned databases & system of BMD. AIS will then disseminate those collected weather and climate products, forecast, alert/ warning and weather related information/ data to the respective stakeholders through several modes (e.g. publish in web, mobile apps, SMS, email etc.) either upon requests from the stakeholders or automatically. AIS Software is comprised of the following Software Components as stated below:

1. Web based Application

The Web based Application is restricted to the authorized users only. It contains administrative functions like configuration, settings, data input/update screen, user management etc. of the AIS. The associated program in the backend of the Web based Application works like a hub to interact with own Database/ File Repository and respective Software Components of the AIS.

2. Public Web Portal

The Public Web Portal is open for all users. Weather and climate products, forecasts, alerts/ warnings are displayed to the web portal with downloading facility. It also contains necessary information regarding latest Weather Information and Services provided by BMD.

3. Mobile App

The Mobile Apps are to be built on both Android and iOS platforms. They must be capable of dissemination of weather and climate products and interactive display of weather information. Data visualization has to be facilitated by displaying maps and text, graphical and tabular information on various parameters.

4. Website to Invoke API (Application Programming Interface)

This website has to be built on a test basis. It invokes API Service from the AIS to show weather and climate products. The purpose is to facilitate other organizations to view weather information after implementing this API in their own website.

5. Website to Cope with Link/ URL of RSS (Really Simple Syndication) Feed

This website has to be built on a test basis. It copes with RSS Feed from the AIS to present weather and climate products. The purpose is to facilitate other organizations to view weather information after implementing this Link/ URL of RSS Feed in their own website.

6. Interaction with Database/Software of BMD

This part of the AIS is for connecting with software/ database of BMD to only retrieve the required weather and climate products / weather data so that the AIS can disseminate/ display such as weather and climate products / weather data to Mobile Apps, public web portal, API etc. to serve the desired purpose of the AIS.

7. API Service

The API Service should hold the capability to make weather and climate products available for the institutional users.

8. RSS Feed Service

RSS Feed Service should provide the Link/ URL containing weather information / weather news. RSS Feed capability should enable concerned organizations (Govt. Organization, NGO, News Portal etc.) to show weather information / news in their website through invoking the Link/ URL.

9. Interaction with Mobile App

This part of the AIS should have the facility to manage both way interactions among Mobile Apps and respective Software Component to serve pull requests initiated from Mobile Apps and push necessary information to Mobile Apps.

10. Program to Integrate with API of Telecom Operator

This program should be connected with API of telecom operators of Bangladesh (TeleTalk, Grameenphone, Banglalink, Robi & Airtel) to get their services (cell numbers of active mobile holders in certain location and SMS service).

11. Program to Integrate with SMS Gateway

This program should have the facility for connecting with national SMS gateway to dispatch SMS from the AIS to the mobile SIM of any mobile operator of Bangladesh.

12. Utility Tool

The job of Utility Tool is to create a backup of the database and to send both file repository and database backup to another server (or storage server).

13. Monitoring Panel

The AIS will comprise of Monitoring Panel to get working status (in form of running/ down state) of respective Software Components, Production Server, Database Server etc.

Interaction among the components:



The following functions is belonging to the above stated Software Components of AIS:

1. Registration of Stakeholders (Individuals/ Organizations) for Accessing Weather Information
2. Managing Stakeholders (Individuals/ Organizations)
3. Registration of Institutional Users (Stakeholders) for API Service
4. Management of Institutional Users (Stakeholders)
5. Registration of Organizations for RSS Feed of Weather Information/ News
6. Managing Organizations
7. Dissemination of Weather and Climate Products to Email ID of Registered Stakeholders
8. Dissemination of Alert/ Warning as SMS to Cell Phones of Registered Stakeholders

9. Dissemination of Alert/ Warning to Mobile App of Mobile Users in Disaster Prone Areas
10. Dissemination of Alert/ Warning Message as SMS to Mobile Phones in Disaster Prone Areas
11. Dissemination of Weather and Climate Products/ Information to Mobile App
12. Dissemination of Location Specific Weather Information to Mobile App
13. Visualization of weather information in Mobile App
14. Visualization of weather information in web interface
15. Visualization of Extreme Weather Event On Map
16. Location Sharing by Mobile User and Dissemination of Weather Information
17. Withdrawal of Alert/ Warning Message
18. Download Weather and Climate Product
19. Provision to Capture Weather/Climate Data Input
20. Stakeholders' Feedback Management
21. Provision to Store Installer, Guideline etc. in the Public Web Portal
22. User (Software User of BMD) Management and Security
23. Configuration and Setup
24. Integration with Database/Software of BMD
25. Invocation of API Service
26. Invocation of RSS Feed Service
27. Interaction with Mobile App
28. Program to Integrate with API of Telecom Operator
29. Integration with SMS Gateway
30. Utility Program
31. Monitoring Panel



Online Helpdesk System (OHS) – Web and Mobile App

OHS is a combination of both mobile and web based app integrating with SMS gateway. OHS can record, respond and track the queries (mentioning problem, feedback, complain, information etc.) with provision to notify by SMS.

OHS can be hosted in the server of the organization and can be served centrally to authorized users of various division/ department/ wing/ unit of the organization. Alternatively, OHS can also be used as user based license service.

One can send message/ queries (such as problem, feedback, complain etc. in text) through mobile app and/or web app. The authorized personnel of the organization can reply, and the reply becomes available to requester on SMS and/or on both mobile and web apps.

Features of OHS:

1. User can send message/ queries (such as problem, feedback, complain etc. in short textual description) through mobile app. User also needs to input Name, Designation and Mobile Number where by validating the user through employee list of the organization and OTP.
2. User can also send message/ queries through web based app.
3. Admin user can reply the queries from web based app.
4. The replies are available on SMS, web based app and also mobile app.
5. The system maintains the feedback loops of queries and reply(ies)
6. Provision to search the queries and reply(ies)
7. Security and admin features



Notification System (by SMS)

This is a web based application. It enables the use to dispatch SMS to one or multiple mobile. It is integrated with SMS gateway.

Its design is flexible. It can be customized easily to meet users' requirements.

Features of Notification System:

1. Employee registration with name, designation, mobile number etc.
 2. SMS dispatching to one mobile number
 3. SMS dispatching by searching and selecting recipient(s)
 4. SMS dispatching to all officers (recipients) selected by designation
- SMS dispatching to selected officers of certain designation



Asset Management Software (AMS)

AMS is a web based application. It is able to record every asset of an organization and to track asset throughout its life cycle starting from acquisition to disposal of the asset. The asset includes computer h/w, office equipment, furniture, fixtures, electronic appliance etc.

It is a centralized system that enables the organizations to track important details about each asset in real time basis. It provides information like where certain asset is located, user of the asset, how long asset is being utilized, present condition of the asset, life of the asset, supplier of asset etc.

Features/ modules of AMS:

1. Asset catalogue management
2. Organization and officer information recording
3. Supplier information recording
4. Asset acquisition management
5. Asset receive management
6. Asset allocation management
7. Asset return (from using) management
8. Asset warranty claim management
9. Asset repair and maintenance recording
10. Asset status updates and tracking
11. Asset register, reporting and dashboard
12. Security and admin features



Document Archiving System (DAS)

A Document Archiving System (DAS) is a web based application to store, share, track and manage files or documents.

Features:

1. Configure parameters by which the documents can be searched
2. Document scanning and archiving with entering parameters
3. File checking during archiving to avoid duplication of same document
4. Setting unique tag as identifier with the document to link with hard copy document
5. Tagging supporting documents (appendix, attachment, annexure etc. of master document) as having prefix/suffix with identifier of master document
6. Generic search provision – Search document with textual attributes
7. Document search by configured parameters

8. Provision to create folder to store documents in folder hierarchy fashion
9. Provision to share entire document or certain part of the document for certain time/ download/ copy option etc.
10. Provision to hide certain part of the document or block (by white/ black color) certain information of the document
11. Restrict the users to download, share, copy and delete documents
12. Multilevel authentication – Restrict users, assign features (like share, download etc.) to role, allow user to access, copy file/ folder, role based user management etc.
13. Provision to store document as digitized format in the repository of the organization
14. Provision of regular back-up of digitized documents



Inventory and Accounting System - Web and Mobile App

Inventory management software is a software system for tracking inventory levels, orders, sales and deliveries. It is a tool for organizing inventory data that before was generally stored in hard-copy form or in spreadsheets.

Features:

1. Order Management
2. Sales Management
3. Delivery Management
4. Barcoding & Tagging
5. Inventory Tracking
6. Inventory Forecasting
7. Inventory Alerts
8. Inventory Security & Backups
9. Stock Returns Handling
10. Reporting

The Accounting Management System is to help an organization to keep track of all incomes, expenses, and every other financial transaction.

Features:

1. Provision to capture Chart of account
2. Journal posting
3. General Ledger (GL) posting
4. Trial balance
5. Financial Statement (Profit/ Loss statement)
6. Balance Sheet
7. API/ web service of accounting system that can be invoked by Inventory System, POS, Payroll system or any other system having financial transaction having similar chart of accounts