



HANMAK TECHNOLOGIES LIMITED

Innovation to your rescue!

PRODUCT INFORMATION

ENTERPRISE RESOURCE PLANNING SYSTEM

(LOYONERP)

This document provides an overview of the features, functionalities and modules provided in the software and illustrates how the product assists you in the day to day management of your business.

CONFIDENTIALITY

This document is a property of HANMAK TECHNOLOGIES LTD and no information whatsoever pertaining to any information in terms of this proposal may be divulged to any third party without the prior consent of HANMAK TECHNOLOGIES LTD in writing, and officially authorized.

DISCLAIMER

HANMAK TECHNOLOGIES LTD has taken reasonable care to provide accurate and sufficiently detailed information in this proposal document.

HANMAK TECHNOLOGIES LTD shall not under any circumstances be liable for any subsequent loss or damages arising from technical or editorial errors or omissions that may appear in this document.

PREFACE

This is an integrated new generation Enterprise Resource Planning System which converges latest technologies with your business process.

It is the ideal software for a manufacturing, retail, processing, equipment maintenance, pharmaceutical, and any other inventory and service oriented business.

The software is locally developed with local conditions in mind specifically to ease the management of purchases, sales, inventory, suppliers, customers, production, project implementation and accounts.

The software is divided into several integrated modules, each addressing a specific activity and all working together to facilitate better management of your business.

The system is modular in design, object oriented and based on the Software as a Service (SaaS) delivery model. It is built on Microsoft ASP Dot Net Core Framework and written in C# programming language. It runs on PostgreSQL, a robust open-source object-relational database. The overall design of the system makes it customizable, versatile, flexible and stable while meeting the present and future requirements of the business and therefore growing and evolving with the business into the future.

The Enterprise Resource Planning (ERP) function is highly simplified making it easy and fast to track and control business processes. Where necessary, search engines have also been included to facilitate the process of finding data and information. Moreover, alerts have also been integrated in the system to remind and alert users on critical events such as stock levels, expiry dates, invoices and so for forth.

Contents

CONFIDENTIALITY0

DISCLAIMER1

PREFACE.....2

1.0 INTRODUCTION2

2.0 SYSTEM OVERVIEW3

2.1 UNIQUE VALUE OFFERED BY THE SYSTEM.....4

3.0 SYSTEM FEATURES AND MODULES5

 3.1. Customer Billing and Sale Orders5

 3.2. End of Shift Cash Reconciliation.....6

 3.3. Manufacturing Management.....7

 3.4. Procurement.....11

 3.5. Procurement Process Flow chart.....13

 3.6. Stores & Inventory Management14

 3.7. Project Management15

 3.8. Customer Relationship Management16

 3.9. Integrated Accounting Module17

 3.10. Accounts Payable.....22

 3.11. Accounts Receivable.....22

 3.12. Accounts Reports.....22

 3.13. Asset Management.....23

 3.14. Budgeting25

 3.15. Business Intelligence Dashboard27

 3.16. Human Resource Reports27

 3.17. Employee Portal.....31

 3.18. Logistics & Fleet Management.....31

 3.19. Administration and Security31

 3.20. TECHNOLOGY USED31

 3.20.1. Application Framework.....31

 3.20.2. Application Architectural Model31

 3.20.3. Application Programming Style.....32

 3.20.4. Application Internal Organization.....32

3.20.5.	Web Server (Technologies Used)	32
3.20.6.	Graphical User Interface (GUI)	32
3.20.7.	Database	32
3.20.8.	Reporting	32
3.21.	SYSTEM REQUIREMENTS.....	32
3.21.1.	Devices Supported	32
3.21.2.	Browsers Supported	33

1.0 INTRODUCTION

LoyonERP is created to solve complex business challenges by focusing on the user. It provides a great user experience through easy to use panels and great visibility into business operations. It is intuitive, always available and customizable to your business processes and specific roles. The system core to your business, with the critical objective of ensuring sufficient oversight and control of transactions & operations. LoyonERP offers robust features and multilayered security features to manage your business data.

The system provides you visibility into key business insights including lot traceability, raw material costing, project tracking, budget control, tracing stock movements, supply chain performance and financial reporting. These insights are configurable as required by your business operations. With its depth of functionality and the best practices incorporated into its implementation, LoyonERP is a full business solution, not just a software.

LoyonERP can easily adapt and scale as required by changes in your business and processes. It is designed to be agile, responsive and highly customizable. The system is designed to be modular allowing you to deploy only what you need upfront. You can add functionality as you grow since the solution is extensible. It also provides the flexibility for you to deploy in the cloud via Software as a Service (SaaS) reducing your capital expenditure in acquiring the solution. The customer's individual business requirements and IT infrastructure are accommodated in the deployment of the system.

The system is tailor-made to address operations throughout the organization including production, finance, IT (Information Technology) and the executive level. Loyon's product roadmap is guided by customer focus. This means continuous improvement in the system's development based on customer feedback.

LoyonERP has a solid, single-code base which provides a unified, tightly knit platform. Information flows seamlessly between departments in your organization. It is developed from the ground-up on Microsoft's C# and ASP .NET Core platform. With these technologies you can easily connect existing systems and infrastructure to maximize productivity. The system is built as a mobile-first solution to provide our customers on-demand access to their information and give them a competitive edge in their markets.

2.0 SYSTEM OVERVIEW

- ✓ *Streamline your operations:* Track business processes from the shop floor to delivery. Get products to market faster, while minimizing costs and supply chain liability.
- ✓ *Advanced scheduling:* Incorporate constraints to reduce Work-in-Progress and improve time performance.
- ✓ *Optimize Production:* Improved capacity planning allows you to gain control over scrap, yield and rework metrics.
- ✓ *Enhance warehouse productivity:* Access business data via mobile devices, reduce lead times and improve customer service with quicker delivery
- ✓ *Engineering Change Control:* Eliminate paper work and minimize human error
- ✓ *Product Configuration:* Rules-based options to improve your whole Product Lifecycle Management. Integrated with automated Bill of Materials to minimize rework.
- ✓ *Financial Management:* Designed to help financial leadership analyze their performance and make innovative changes to improve operations, cut costs and increase their returns.
- ✓ *Boost Customer Service:* Get a single view of customers, contracts and orders with integrated computerized maintenance management module
- ✓ *Customer Relationship Management:* Get powerful sales automation, marketing automation and customer service capabilities. Integrated with your Customer Billing Process to improve margins with more accurate quoting and manage special customer pricing
- ✓ *Traceability of inventory:* Maintain audit trails with serial control and traceability of parts by lot number
- ✓ *Quality Control:* Obtain greater efficiency in handling defective material issues
- ✓ *Reliability Management and Maintenance Scheduling:* Determine work needs (labor, materials inventory, materials requisition), control the work and measure effectiveness in carrying out maintenance work. Confirm the validity of actions taken and measure their effectiveness.
- ✓ *Shorten decision cycle times:* Get accurate and valuable insights on-demand. Empower decision-makers with real-time visibility into business performance data. Monitor all operations remotely from a smartphone, tablet, laptop and desktop computer and keep track of every concern in your business operations. Allows for proactive adjustments to strengthen your business across the value chain.
- ✓ *Intuitive user dashboards* with drilldowns into particular business insights
- ✓ Secure and fail-over system for all business data.
- ✓ Save on infrastructure set-up and maintenance cost - you only need a device with access to the internet to use the application and hence no need for expensive servers and other hardware.
- ✓ *The application is offered as SAAS (Software as a Service):* This implies a subscription model where the pricing is based on modules, storage used and number of users accessing the application.

2.1 UNIQUE VALUE OFFERED BY THE SYSTEM

With LoyonERP, you will:

Seal revenue leakages: Eliminate errors in customer billing and eliminate the possibility of invoices being rejected by your customers.

Reduce inventory shrinkages: Keep track of all stock and other materials from the time items are procured, to where they are stored and how they are sold and consumed. Get alerts on stock expiry dates. Never run out of critical stock: Get alerts on stock reorder levels.

Get daily revenue reports for the different departments on your mobile phone – Easily access daily revenue reports for all customer bills and services you may offer

Achieve seamless and real-time collaboration in service delivery – Allow your business team to share customer and agree on the best intervention.

Streamline the business workflow – use the integrated billing module to track customer engagements from prospecting through quotation, invoicing and service delivery. Enforce the most efficient and effective business workflow.

Streamline administrative workflow – enforce business rules, standards and regulations throughout the organization. Application provides enforcement capabilities for the most efficient and effective administrative workflow

Achieve accountability – use the integrated audit trail to track all user actions and also identify deviations, omissions, and errors to mitigate various operational risks.

Have secure storage and retrieval of business data – end-to-end encryption of transmission of business data that is stored in a secure cloud. Set data access rights to prevent unauthorized access to business data. You are guaranteed to have an updated backup of the business data.

Have both operational and managerial decision support tool right in your palm – Access operational and financial reports on your mobile phone. Access informative and well organized dashboards for operational, financial, process, inventory, procurement and human resource KPIs (Key Performance Indicators). Get alerts on critical events right on your mobile phone or any internet enabled device.

3.0 SYSTEM FEATURES AND MODULES

3.1. Customer Billing and Sale Orders

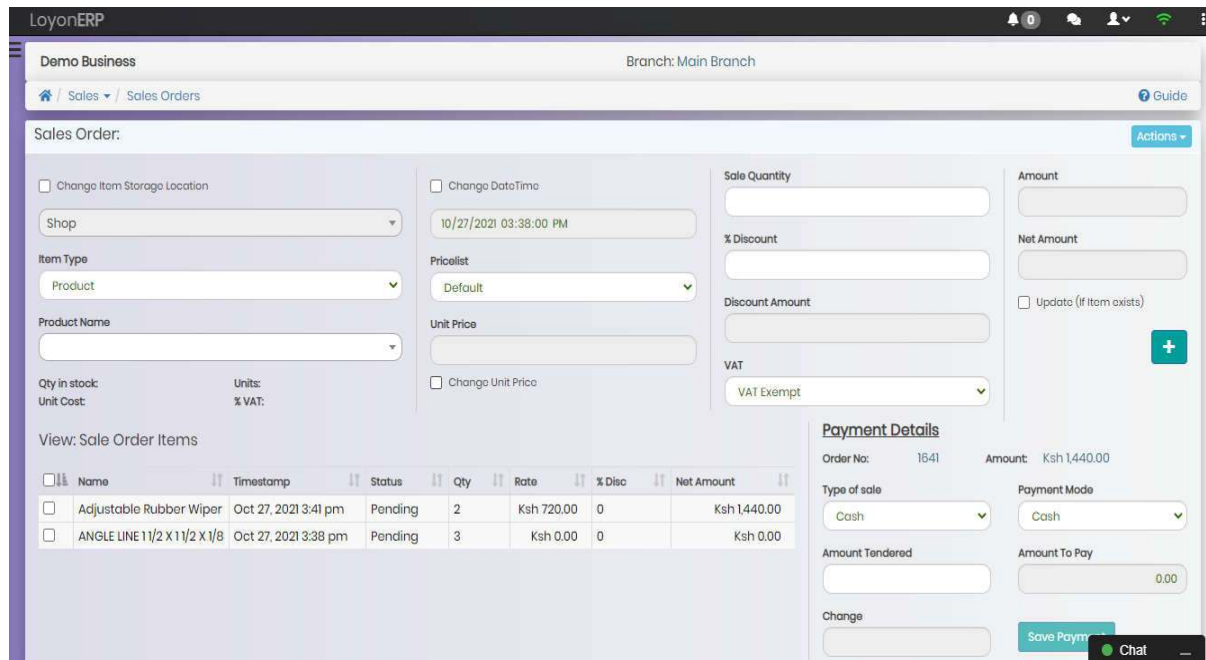



Fig 3.1a Customer Sale Order Panel

- Supports multiple cashier points
- Easy to use user interface
- Supports barcode scanners
- Provision for item codes
- Generate quotations
- Generate delivery notes
- Generate sales orders and send them to stores/cashier
- Provides creation of different types of categories for customers
- Provides options for cash and credit transactions
- Create customer accounts
- Generate receipts for cash paying customers and invoices all credit sales.
- Generate receipts for debtor payment
- Offers various payment schemes (cash, cheque, mobile money, EFT, credit cards and debit cards – with an option of creating more schemes)
- Automated VAT analysis

Share ▾

🔄 ⬇️ 🖨️ 🔍

Cash Sale Receipt

Main Branch
 **Hannak** +254 721 232 213,
 www.demobusiness.com

Print Date: 01-Nov-2021 10:43 AM
 Sales Date: 05-Jan-2021 10:24 AM
 Pmnt Mode: Cash
 Issued To: Mlolongo Wholesale And Retail Shop
 Order No: 1237
 Receipt No: 562
 Reference No:

Rate	Qty	%Disc	%Vat	Amount
Amoxill 500mg caps				
50.000	3.0	0.000	16.00	150.000
Total Amount				150.000
Amount Paid				150.00
Amount Tendered				200.00
Change Amount				50.00

Value Added Tax	16.000 %	18.420
Total Tax Amount		18.420
Total Without Tax		131.580

Paid In By: Mlolongo Wholesale And Retail Shop
 Served By: k.joseph

Excellent Service

ERP By Hannak Technologies

Fig 3.1b Cash sale receipt (Automated VAT Analysis)

3.2. End of Shift Cash Reconciliation

- Automatic user register (when user begins and ends shift)
- Generate End-Of-Shift Cash reconciliation summary report
- Generate cash receipts and payment schemes summary report (includes summary by department and revenue units)
- Generate sales and cash reports for every cashier/user

3.3. Manufacturing Management

- Kanban: Schedule your tasks and workflows for lean management
- Master Production Scheduling. Process Characterization, Process Definition, Production Planning and Product Route Definition.
- Set the appropriate production mode for your operations: discrete, assemble-to-order, engineer-to-order, make-to-stock mixed, etc.
- Material Requirements Planning
- Shop Floor Control & Dispatch
- Timesheets: Labor and Time Tracking
- Manage Work Orders
- Work-in-Progress Tracking
- Inventory Summary
- Inventory Tracking
- Bill of Materials. Accurately cost, track and schedule production
- Just-in-time sequencing
- Bar-coding and lot tracking
- Demand Management. Synchronize Supply with Demand. Use projected demand and supply in planning and creating realistic production, purchasing and supply transfer schedules.
- Access production data from anywhere using mobile devices
- Manage your entire manufacturing operation regardless of location.
- Increase On-Time Delivery: with finite capacity real-time scheduling.
- Reduce Cost of Quality: Reduce your cost of goods sold by optimizing cost of quality with embedded quality management.

Components - Standard Carry-in Sweep 6" ✕

Type of Component: Stock Item ▼ Quantity Required:

Item: ▼ +

Storage Location: ▼

View: Bill Of Material Components

Search:

Item	Quantity	Storage Location
Adjustable Rubber Wiper	1	Warehouse A
Gear Box	1	Warehouse A
Intermediate Well	1	Warehouse A
Iveco - Cylinder Head Gasket	30	Warehouse A
Production Labour Per Hour	2	
Wheels	12	Warehouse A

Fig 3.3a Bill of Materials Panel allows for inclusion of Stock and Non-Stock Components Required for Production

Bill Of Material

Product: Standard Carry-in Sweep 8"
 Reference: STD056-3122021
 Type: Manufacture
 Consumption: Strict
 Storage Location For End Product: Warehouse B
 Routing: Sample Route

Components

Item	Quantity
Adjustable Rubber Wiper	1
Gear Box	1
Intermediata Wall	1
Ivoco - Cylinder Head Gasket	30
Production Labour Per Hour	2
Wheels	12

View: Bill Of Materials

Product	Reference	Quantity	Storage Location	Consumption	Production Cost
Direct Gear Drive Sweep 8"	DGD90-30122021	1	Warehouse B	Strict	Ksh 167,376.44
Final Product	FP	1	Main Stores	Strict	Ksh 1,440.00
Final Product	-	15	Main Stores	Strict	Ksh 1,200.00
jersey	Refc4517	200	Shop	Strict	Ksh 15,000.00
Magnesium Sulphate	2211	1000	Warehouse B	Flexible	Ksh 8,000,000.00
Mega Milk 500ml	001	200	Dairy Warehouse(Production Materials)	Strict	Ksh 0.00
Mega Milk 500ml	Fresh Milk	1000	Stores - Cold Room	Strict	Ksh 3,060,000.00
Raw Material 1	RM 2	3	Main Stores	Strict	Ksh 0.00
Raw Material 3	Ref RM3	2	Main Stores	Strict	Ksh 80.00
SQUARE TUBE 2X)		12	Warehouse A	Strict	Ksh 0.00
Standard Carry-in Sweep 8"	STD056-3122021	1	Warehouse B	Strict	Ksh 34,915.00

Fig 3.3b Bill of Materials panel – Allows for selection of Storage Location for End Product

Work Center

Name: Milk Processing Plant 1
 Cost Per Hour: 1000
 Time Efficiency %: 95
 Overall Equipment Effectiveness %: 97
 Daily Potential Output (Quantity): 1

Operations

Name	Duration
Storage	15 mins
Clarification	10 mins
Preheating	8 mins
Separation	15 mins
standardization for fat content	20 mins
Homogenization	15 mins
Pasteurization	10 mins

View: Work Centers

Name	Efficiency	Capacity	Cost Per Hour	OEE
Assembly Station 1	90 %	1	Ksh 150.00	98 %
Corn Oil - Thika Plant	95 %	1000	Ksh 78,787.00	95 %
Milk Processing Plant 1	95 %	1	Ksh 1,000.00	97 %
Pan Africa Chemicals	94.9 %	350	Ksh 17,000.00	96.8 %
warehouse	90 %	10	Ksh 0.00	90 %
workshop	99 %	50	Ksh 0.00	0 %
WORKSHOP B	90 %	10	Ksh 0.00	95 %
workshop-mugundoi	99 %	1	Ksh 0.00	99 %

Fig 3.3c Work Centre Management

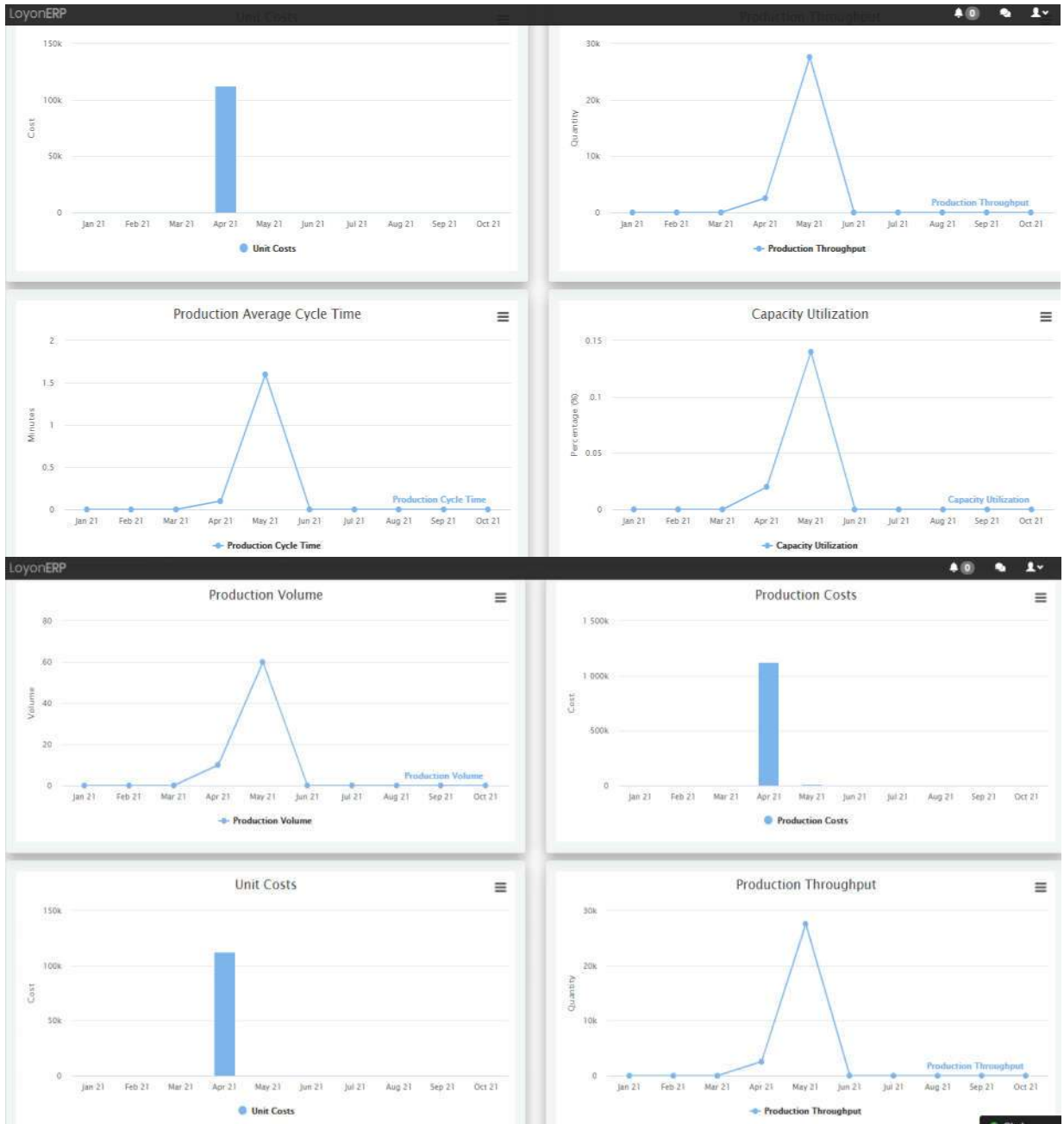


Fig 3.3d Manufacturing Dash Board

3.4. Procurement

Fig 3.4a Purchase Orders Panel

Item ID	Name	Is stock item	Rate	Purchasing Quantity	Purchasing Units	% VAT	% Disc	Net Amount
157	HARD BRUSH	Yes	Ksh 34.00	4	Piece	0	0	Ksh 136.00
158	steel	Yes	Ksh 580.00	3	Piece	0	0	Ksh 1,740.00

Fig 3.4b Purchase Order Items

Purchase Order

Business Information:
 Demo Business
 www.demobusiness.com
 Branch: Main Branch
 Address: Located at Mburu Gichua/Maralal Road Behind Kanini Wholesalers Opp. Olunguruone Stage, P.O. Box 1535, NAKURU
 Telephone: +254 721 232 213,
 Email: main@demo.com
 PIN: -

Supplier Information:
 Supplier: Kazuri
 Address: Eldoret
 Telephone: 0701276XXX
 Email: test@gmail.com
 Town: Eldoret
 Country: Kenya

Printed On: 01-Nov-2021 10:37 AM Order No:
 Purchase Order No: 105 Created On: 25-Aug-2021 12:53 PM
 Order Ref: 78667 Authorized Valid Until: 24-Aug-2021

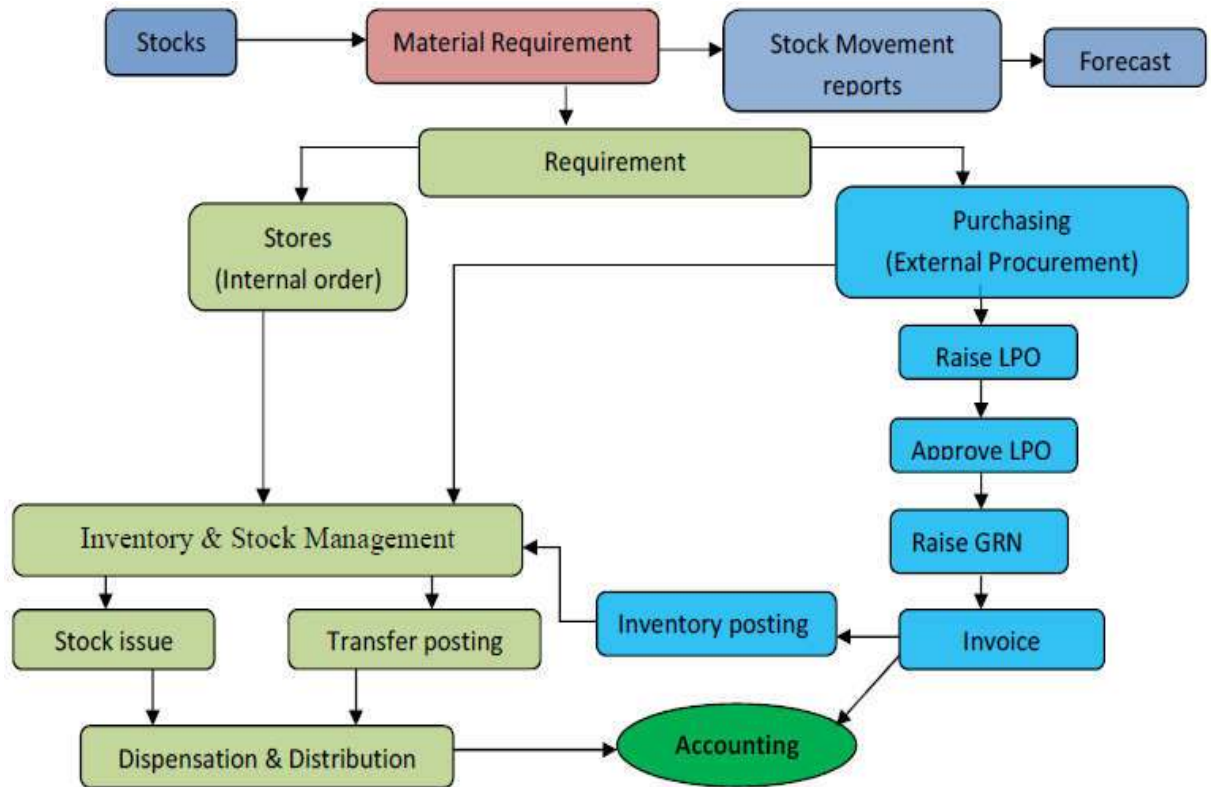
No	Name	Units	Qty	Rate	%Vat	%Disc	Amount	Net Amount
1	steel	Piece	3.00	580.00	0.00	0.00	1,740.00	1,740.00
2	HARD BRUSH	Piece	4.00	34.00	0.00	0.00	136.00	136.00
Total:							1,876.00	

Prepared By: admin Date: 25 Aug, 2021 12:53 PM Sign: _____
 Checked By: admin Date: 25 Aug, 2021 12:57 PM Sign: _____

Fig 3.4c Purchase Order (Printable)

- Raise LPO for stock items and services
- View pending and unauthorized orders/LPO
- Automatically update stock with Goods Delivered Note
- Automatically create supplier invoice upon receiving goods.
- Merged LPO-GRN-A/P Invoice reports
- Automatic alerts when supplier bills are due
- Pay supplier invoices and bills
- Automatically generate supplier statements
- View supplier payment history

3.5. Procurement Process Flow chart



3.6. Stores & Inventory Management

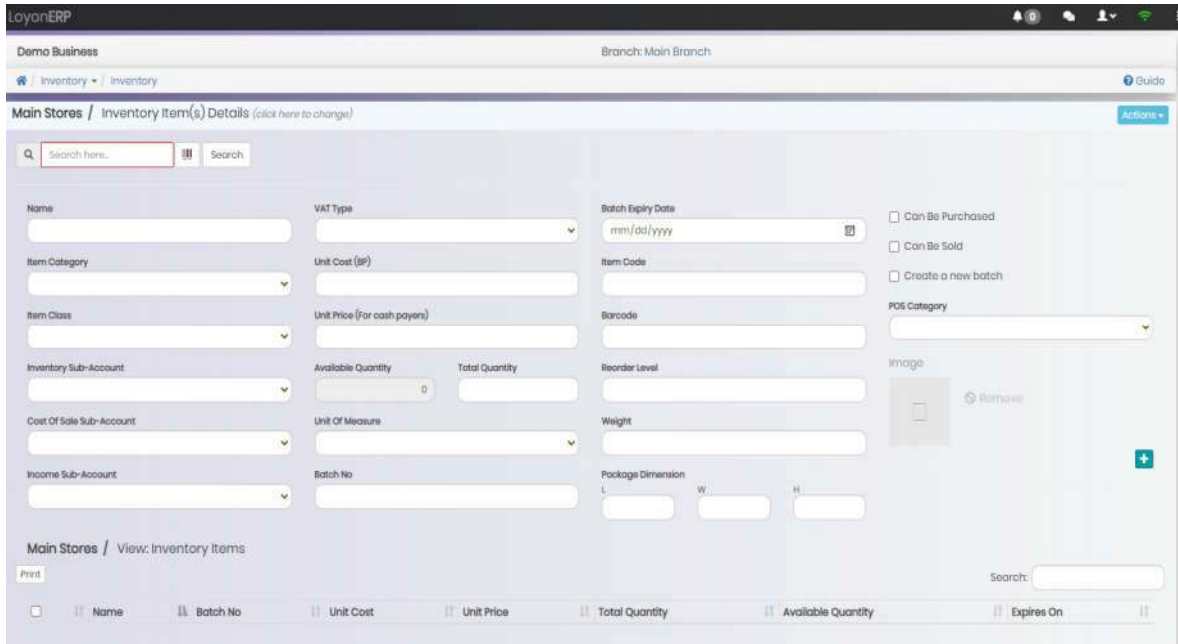


Fig 3.6a Inventory Panel

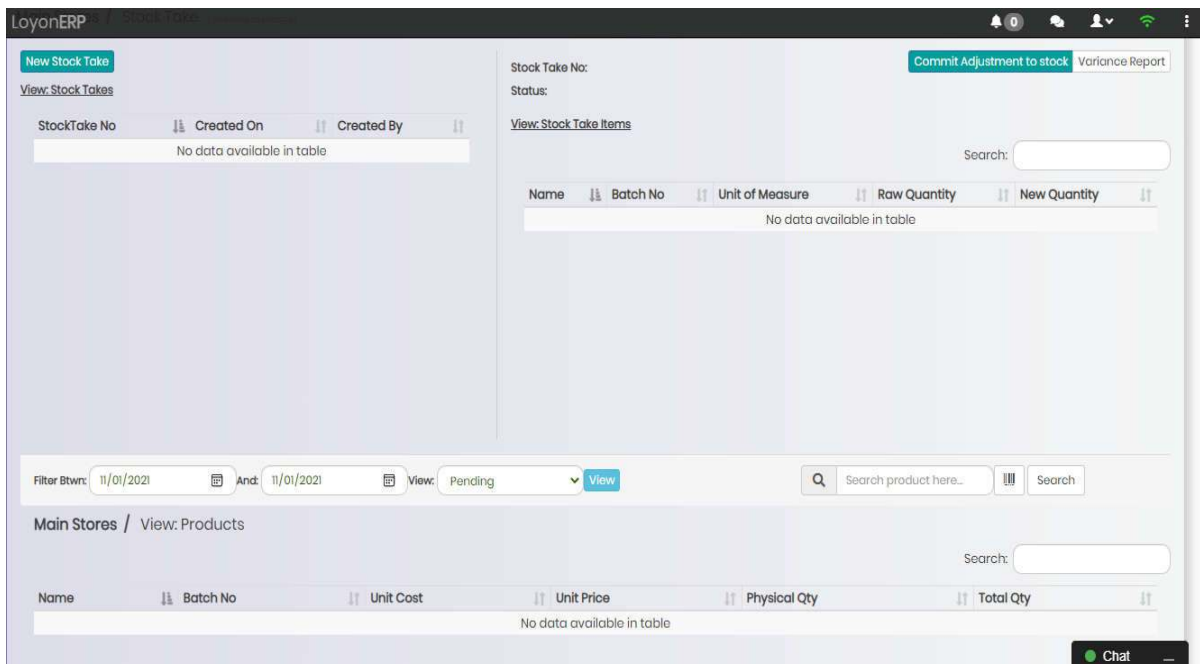


Fig 3.6b Stock Take Panel

- Supports multiple storage locations
- Create different categories and sub-categories for all items
- Add new and update existing stock items

- Alerts and reports for items with short expiry dates (where applicable)
- Alerts and reports for stock levels
- Track stock movement from purchases, return outwards, sales, return inwards, internal consumption and stock adjustments.
- Adjust stock when necessary
- Inter-departmental (and branch) stock orders (issue items between storage locations and departments)
- Automatic mark up on unit cost
- Stock take functionality with variance reports

3.7. Project Management

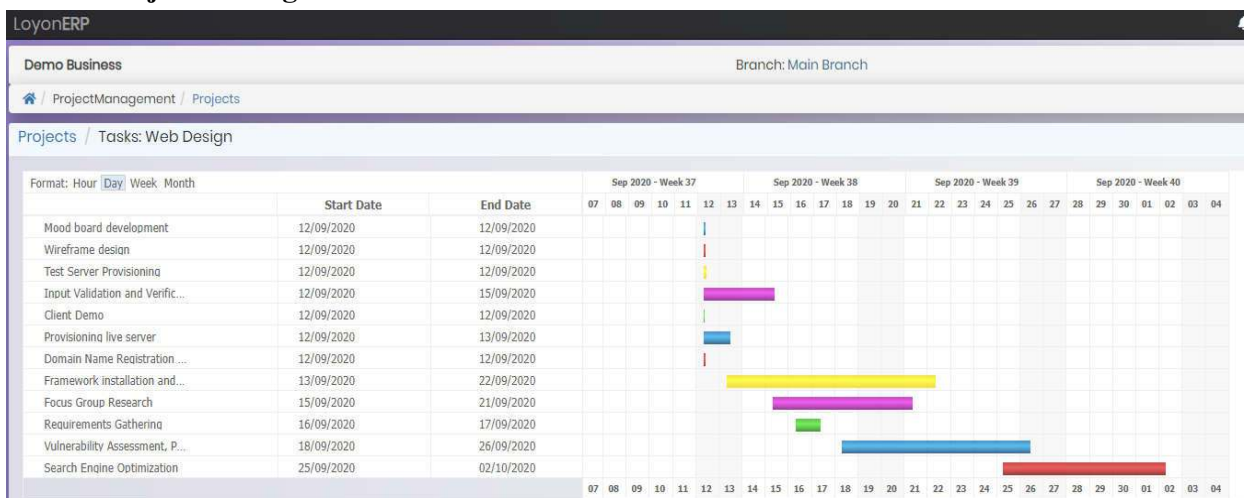


Fig 3.7a Project Management Module - Displaying Tasks on Gantt Chart

- Project Accounting
- Project Definition
- Project Scheduling, Resource Management and Task Tracking
- Provides Gantt Chart and Kanban options for viewing Project Tasks
- Program Cost Accounting
- Project Administration
- Project Billing
- Project Resource Planning
- Project Analysis & Reporting
- Project chat: discussion of documents, tasks; sharing, collaboration
- Project closure
- Issue Tracking



Fig 3.7b Project Management Dash Board

3.8. Customer Relationship Management

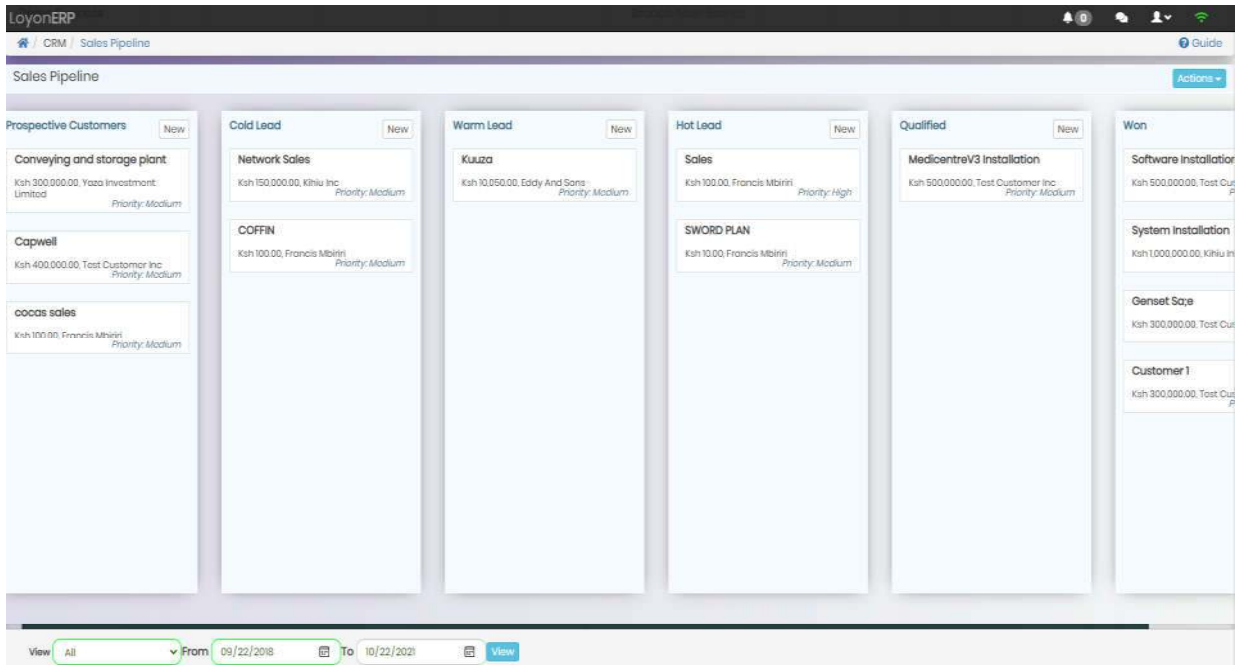


Fig 3.8 Customer Relationship Management – Sales Pipeline (Kanban View)

- Lead management – Attribution by Lead Source, Lead Qualification by Stage
- Pricing and Discount Matrix
- Account Management
- Track sales campaigns
- Contract Management
- Sales Orders
- Sales Quotes
- Integrated with Customer Invoicing module

3.9. Integrated Accounting Module

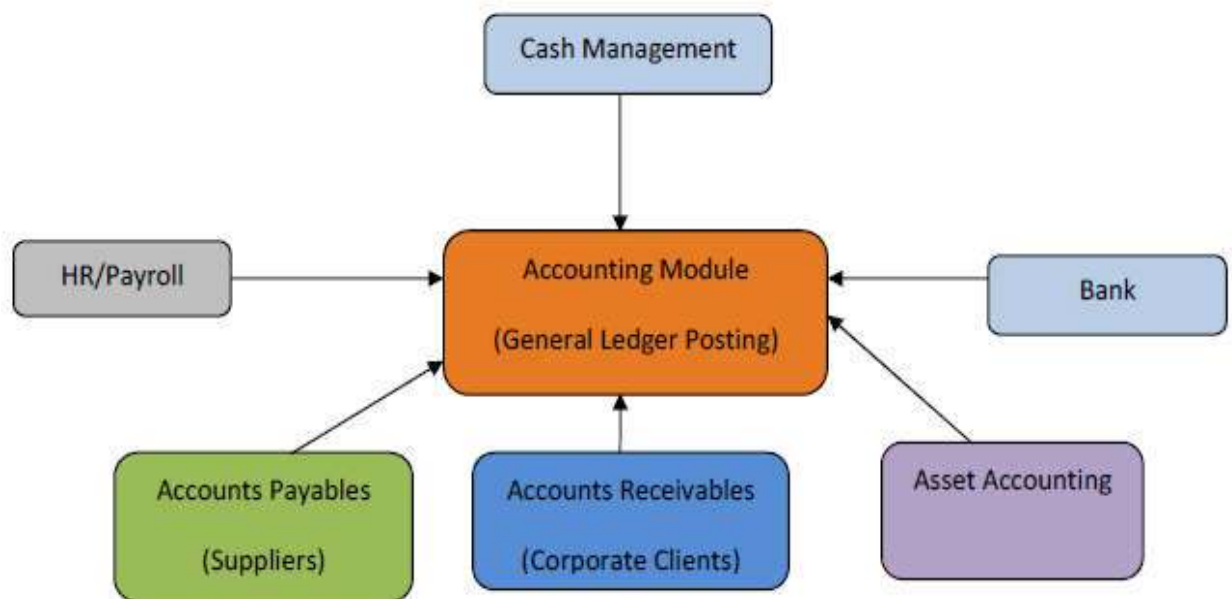


Fig 3.9a Integrated Accounting Function

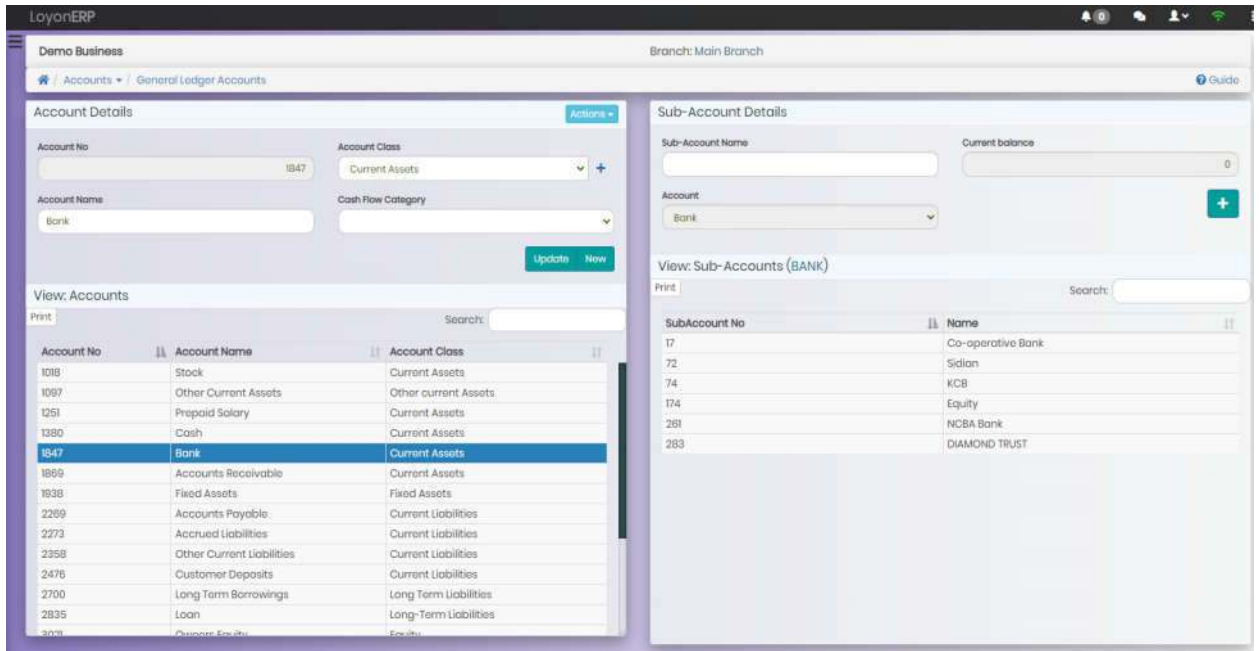


Fig 3.9b Ledger Accounts and Sub-Accounts - Configuration

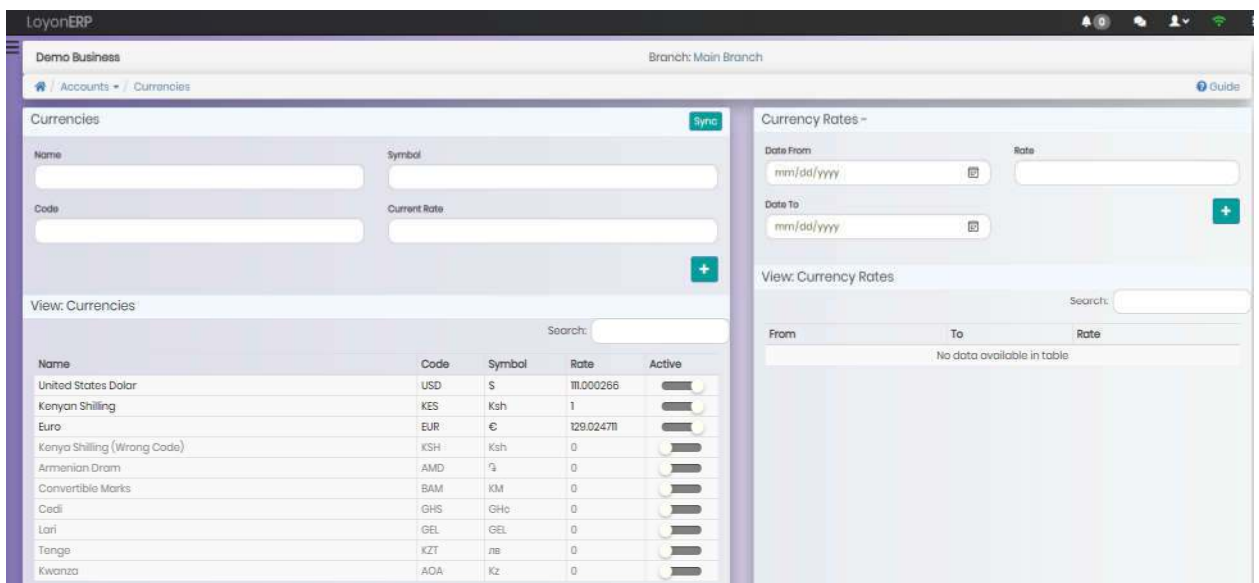


Fig 3.9c Manage Trading Currencies and Rates of Exchange

- An extensive, flexible and well organized chart of accounts to support all accounting needs for your business. Informed by IFRS (International Financial Reporting Standards)
- Asset Management – Automated depreciation, asset maintenance
- Accounts Receivable - for individual and corporate customers
- Accounts Payable – for all suppliers
- Aging schedules for both payables and receivables

- Automatically generate corporate statements
- View statement per company at a click of a button
- Allocate invoices once payment is received and automatically remove them from pending
- invoices.
- Cash management (Petty cash, cash transfers, banking)
- Create and monitor bank deposits
- Write cheques to suppliers and also for other payments
- Budgeting – Automated budget schedule for monthly, quarterly and yearly periods
- Bank reconciliation and reconciliation report
- Multi-currency support

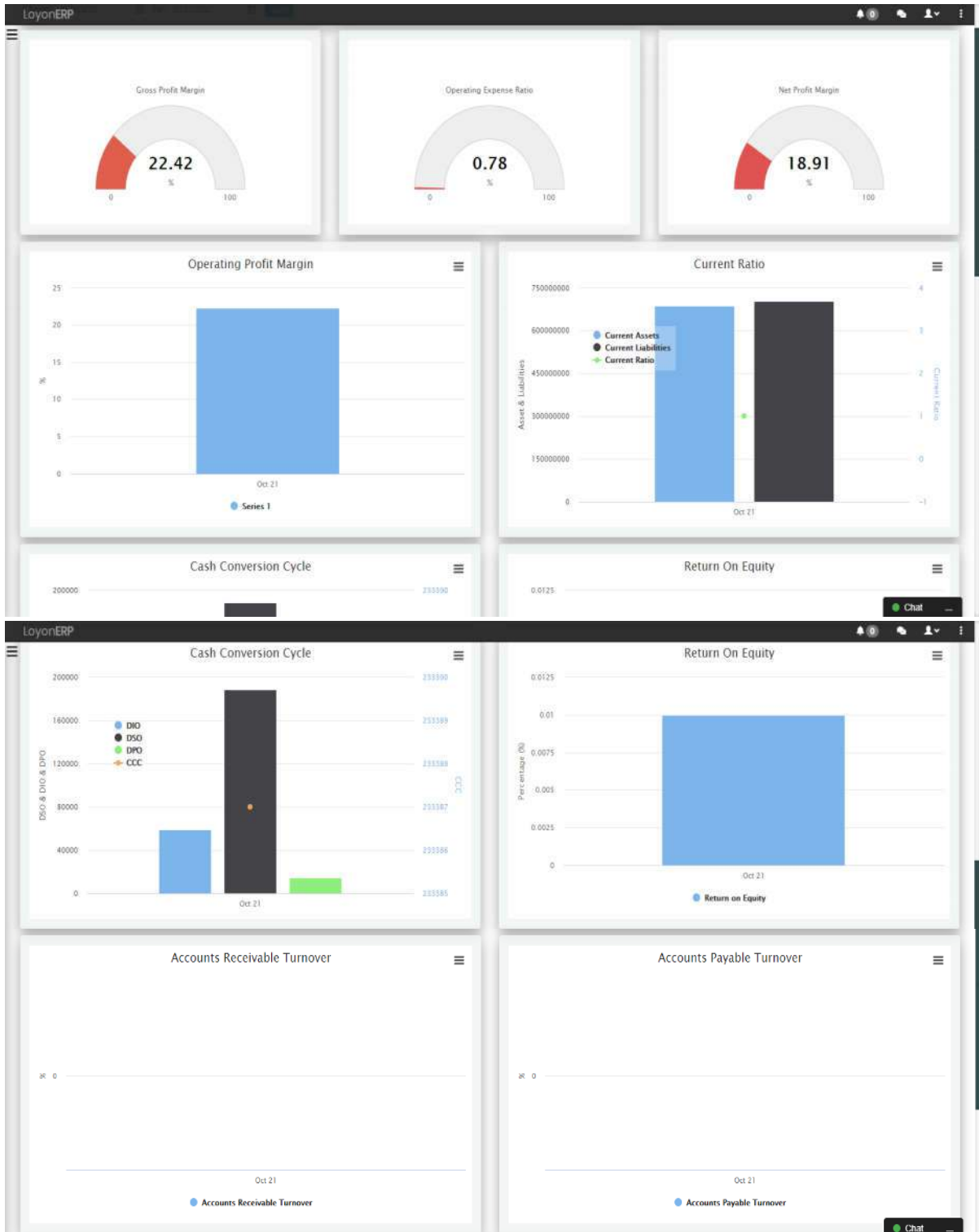


Fig 3.9d Financial Dash Board

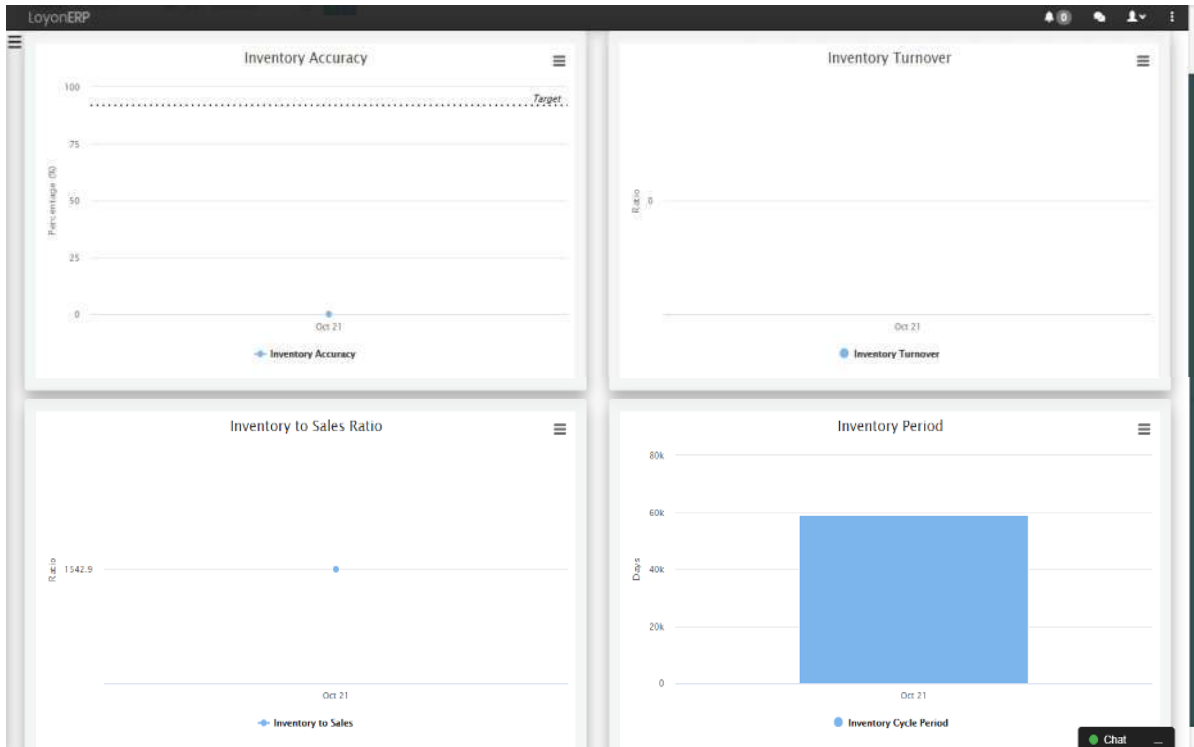


Fig 3.9e Inventory Dash Board

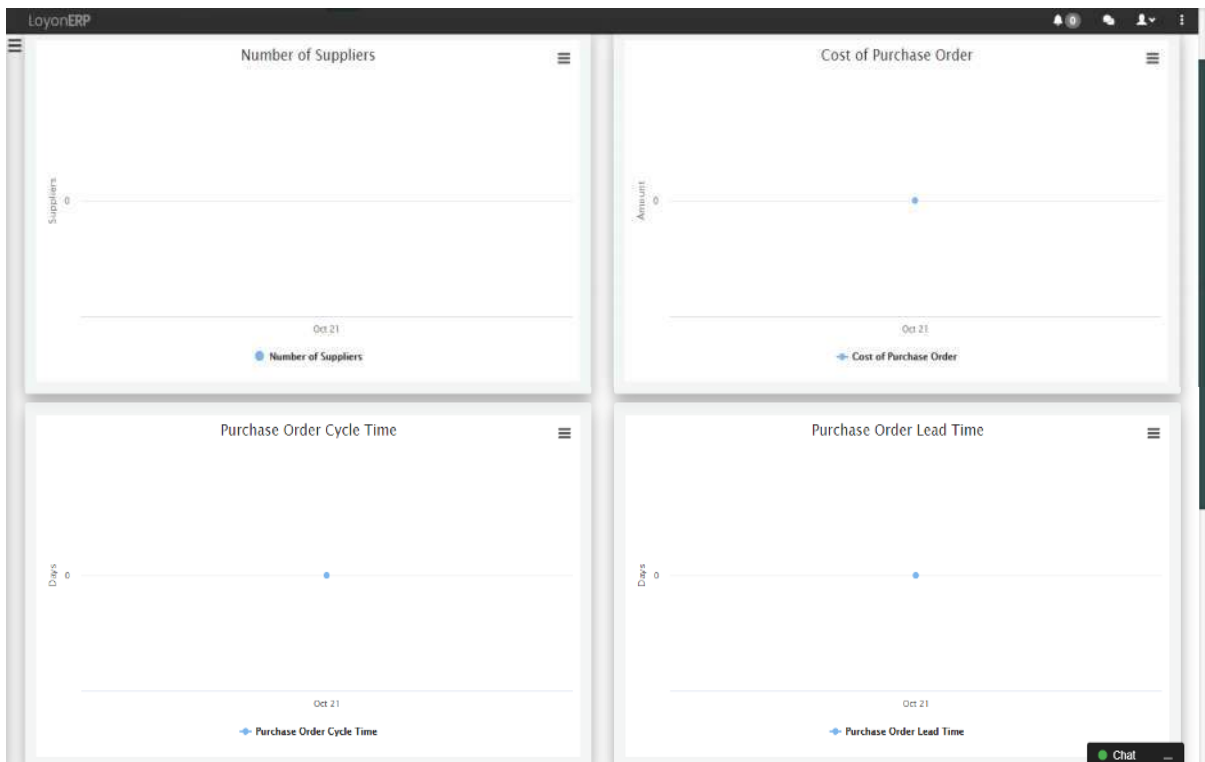


Fig 3.9f Procurement Dash Board

3.10. Accounts Payable

- Accounts payable ledger
- Supplier ledger
- Supplier bills report
- Supplier aged analysis report by month. Provides an option of matching the invoices against the payments
- General ledger accounts
- Automated payment vouchers & remittance for payments
- Merge GRNs, LPOs, delivery notes and the invoices
- Batch supplier bills (A/P invoices) payments.
- Partial A/P invoice payments

3.11. Accounts Receivable

- Accounts receivable ledger
- Corporate statements
- Accounts receivable aging analysis (summary / per customer / per organization)
- Batch payments for A/R Invoices
- Partial A/R invoice payments

3.12. Accounts Reports

- Revenue ledger report
- Revenue Reports (Outlet/Branch, Department)
- Revenue graphs (daily/weekly/monthly)
- Aging Analysis (Schedule) for both payables and receivables
- Reports for Cash receipts, Cheque payments and other payment modes
- Bank reconciliation reports
- Ledger account statements
- Financial Statements - Trial Balance, Income Statement, Balance sheet, Budget, Cash-flow Statement and Budget

3.13. Asset Management

The screenshot displays the 'Fixed Asset Management' interface in LoyonERP. The top navigation bar shows 'Demo Business' and 'Branch: Main Branch'. The breadcrumb trail is 'Accounts > Fixed Asset Management'. The main form is titled 'Fixed Asset Management' and includes an 'Actions' button.

The form fields are organized as follows:

- Asset Name:** Compressor
- Manufacturer:** Atlas
- Quantity:** 1
- Date Of Acquisition:** 09/11/2020
- Asset Sub-Account:** Buildings and Structures
- Make:** [Empty]
- Initial Rate Per Unit:** 650000
- Asset Location:** [Empty]
- Income Sub-Account:** Gains on Sale of Fixed Assets
- Model:** [Empty]
- Initial Value:** 650000
- Employee in charge:** [Empty]
- Expense Sub-Account:** Loss of Sale of Fixed Assets
- Serial Number:** [Empty]
- Current Value:** 650000
- Asset Class:** Plant and Equipment
- Barcode:** [Empty]
- Salvage Value:** 162500

An 'Update Now' button is located at the bottom right of the form.

Below the form is a 'View: Fixed Assets' section with a search bar. It contains a table with the following data:

Name	Class	Initial Value	Current Value	Salvage Value	Useful Life	Depreciation Method
Compressor	Plant and Equipment	Ksh 650,000.00	Ksh 650,000.00	Ksh 162,500.00	48 months	Straight Line (Use Depr Rate)
HP Probook						
Mazda Demio K8B 123B	Motor Vehicles	Ksh 550,000.00	Ksh 280,500.00	Ksh 137,500.00	60 months	Straight Line (Use Depr Rate)
Toyota Harrier KCL 985J	Motor Vehicles	Ksh 4,700,000.00	Ksh 4,089,000.00	Ksh 1,175,000.00	60 months	Straight Line (Use Depr Rate)
Vipingo Ridge 35 Acre-Beach Plot	Buildings	Ksh 44,065,000.00	Ksh 41,130,271.00	Ksh 17,626,000.00	120 months	Straight Line (Use Salvage Value)

Fig 3.13a Asset Management Module

Asset Servicing

Name: Maintenance

Done On: 10/22/2021

Description:

Next Service Date: 10/22/2021

Done By:

Amount Paid:

View: Asset History *Hover For Additional Info*

Search:

No	Type	Done By	Amount Paid	Done On	Next Date	Recorded By
1	Maintenance	XYZ Garage	Ksh 5,000.00	Nov 11, 2019	Jun 11, 2020	admin

Fig 3.13b Asset Servicing and Maintenance

- Asset capitalization: track cost of asset acquisition
- Track depreciation, transfer, revaluation, and disposal
- Record asset insurance policy details and keep track of premium payments
- Preventative Maintenance: track technical servicing scheduled for the asset
- Asset tagging

The screenshot shows the 'Asset Depreciation Runs' window in LoyonERP. It displays a table of assets with the following data:

Asset	Method	From	To	Cost	Depreciation Amount	Valuation
<input checked="" type="checkbox"/> Vipingo Ridge 35 Acre-Beach Plot	Straight Line (Use Salvage Value)	Apr 16, 2021	Oct 22, 2021	Ksh 44,065,000.00	Ksh 1,374,828.00	Ksh 41,180,271.00
<input type="checkbox"/> Mazda Demio KBB 123B	Straight Line (Use Depr Rate)	Apr 16, 2021	Oct 22, 2021	Ksh 550,000.00	Ksh 71,500.00	Ksh 280,500.00
<input type="checkbox"/> Toyota Harrier KCL 965J	Straight Line (Use Depr Rate)	Sep 11, 2020	Oct 22, 2021	Ksh 4,700,000.00	Ksh 1,304,250.00	Ksh 4,089,000.00
<input type="checkbox"/> Compressor	Straight Line (Use Depr Rate)	Sep 11, 2020	Oct 22, 2021	Ksh 650,000.00	Ksh 180,375.00	Ksh 650,000.00

Fig 3.13c Automated Asset Depreciation

3.14. Budgeting

The screenshot shows the 'Budget Yr 2020 - Edit Mode' window in LoyonERP. It displays a monthly budget grid for 2020 with the following data:

Sub Account	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Bad Debt Expense	0	1000	2000	3000	-4000	5000	6000	7000	8000		9000	10000	11000
Cash Shot	200	100	100	100	100	100	100	100	100	100	100	100	100
Consultant Fee	200	200	200	200	200	200	200	200	200	200	200	200	200
Cost Of Goods Sold - Drugs	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Of Goods Sold - Products	0	0	0	0	0	0	0	0	4698	13914	88943	0	0
Depreciation Expense	0	0	0	0	0	0	0	0	0	0	0	0	0
Gains on Sale of Fixed Assets	0	0	0	0	0	0	0	0	0	0	0	0	0
Import Duty Expense	0	0	0	0	0	0	0	0	0	0	0	0	0
INSURANCE	0	0	0	0	0	0	0	0	0	0	0	0	0
Loss of Sale of Fixed Assets	0	0	0	0	0	0	0	0	0	0	0	90	0
NHIF	0	0	0	0	0	0	0	0	0	0	17450	0	0
Other Income	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Cost-Bulto	0	0	0	0	0	0	0	0	0	0	0	0	0
Repairs and Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0
Salaries and Wages	0	0	0	0	0	0	0	0	0	0	0	263100	0
Sales - Drugs	0	0	0	0	0	0	0	0	0	0	0	0	0
Sales - Products	0	0	0	0	0	0	0	0	6748.99	184583504.36	451838.23	0	0
Sales - Services	0	0	0	0	0	0	0	0	0	0	0	0	0
Sales Discount	0	0	0	0	0	0	0	0	0	0	0	0	0
Transportation	0	0	0	0	0	0	0	0	0	0	0	0	0
Withholding Tax Expense	0	0	0	0	0	0	0	0	0	0	0	0	0

Fig 3.14a Budgeting Module


Budget Vs Actual													
 Demo Business www.demobusiness.com		Branch: Main Branch		Report DateTime: 22-Oct-2021 07:35 AM									
Budget Yr 2020													
Jan 2020 - Dec 2020													
Sub Account	Overall Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Revenue													
Other Income													
Other Income													
Budget:	0	0	0	0	0	0	0	0	0	0	0	0	0
Actual:	0	0	0	0	0	0	0	0	0	0	0	0	0
% of Budget:	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%
Overall Budget for Other Income:													0.00
Revenue													
Gains on Sale of Fixed Assets													
Budget:	0	0	0	0	0	0	0	0	0	0	0	0	0
Actual:	0	0	0	0	0	0	0	0	0	0	0	0	0
% of Budget:	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%
Sales - Drugs													
Budget:	0	0	0	0	0	0	0	0	0	0	0	0	0
Actual:	0	0	0	0	0	0	24,835	7,997	0	340	0	20,235	0
% of Budget:	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%
Sales - Services													
Budget:	0	0	0	0	0	0	0	0	0	0	0	0	0
Actual:	0	11,096,768	12,431	8,340	59,379	464,825	231,212	8,818	3,114	4,298	3,119	27,972	0
% of Budget:	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%
Sales - Products													
Budget:	185,051,394	0	0	0	0	0	0	0	0	6,750	184,593,504	451,139	0
Actual:	0	758,489	72,704	225,453	199,198	219	28,163	4,800	1,556	11,904	31	132	0
% of Budget:	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	176.4%	.0%	.0%	.0%

Fig 3.14b Budgeting Variance Report

- Generate and adjust budgets easily monthly/quarterly/yearly
- Pre-fill newly generated budgets with data from a previous budget summary
- Obtain budget variance reports for analysis of your spending
- Assess favorable and unfavorable variances against Standards
- Assess the efficiency of organizational spending across departments

3.15. Business Intelligence Dashboard

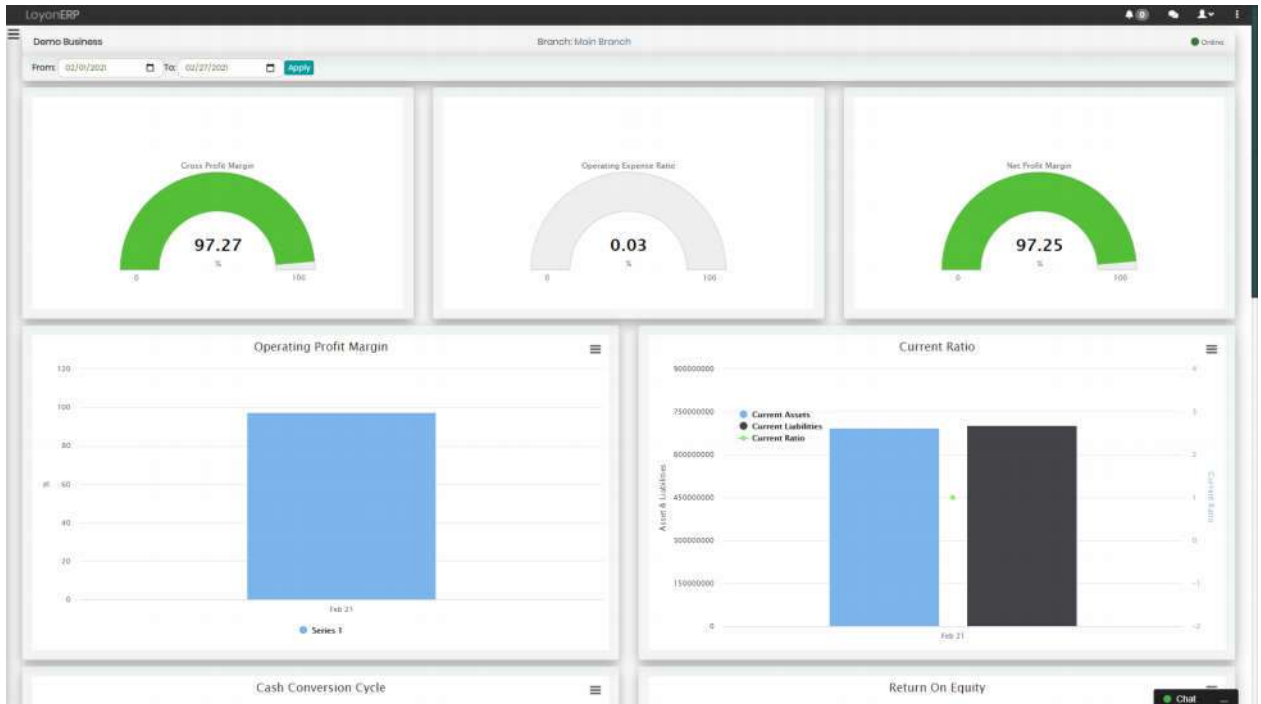


Fig 3.15 Business Intelligence Dashboard - Financial metrics

- Provides insights on business KPI's
- Metrics displayed on Financial section: Gross Profit Margin, Operating Expense Ratio, Current Ratio, Operating Profit Margin, etc
- Metrics displayed on Inventory section: Inventory Turnover, Inventory Period, Inventory to Sales Ratio, etc
- Metrics on Project Management section: Initiated vs Completed Projects, Workload, Project Cost, Time Spent on Projects, etc
- Metrics on Procurement section: Purchase Order Cycle Time, Purchase Order Lead Time, Supplier Availability, etc
- Metrics on HR section: HR Cost per Employee, Revenue per Employee, Monthly Salary Expense, Employee Turnover, etc

3.16. Human Resource Reports

- Employee registration
- Ledger integrated pay slip generation
- Leave management
- Automated master payroll reports
- Payroll analysis (PAYE, NHIF, NSSF, Loan and other payroll parameters)

- Ledger integrated pay slip generation
- Leave and off-duty management
- Scheduling and Duty Roster
- Diary

The screenshot shows the LoyonERP interface. On the left, a sidebar lists employees: Surname, Kihiu (selected), Mwaaura, Udoh, Otieno, Gatoto, Kadima, Okware. The main window displays the 'Payslip' for Kihiu Kelvin Doe, Main Branch, with phone number +254 721 232 213. The print date is 22-Oct-2021 05:46 AM. The employee's name is Kihiu Kelvin Doe, Department is SCM, Designation is -, Payslip No is 65, Pay Period is August, 2021, Bank is Sidian, A/C No is 03993939, KRA PIN is A0002556, NSSF No is 0367888, and NHIF No is 356456787.

Earnings	
Basic Pay	100,000.00
Over Time	0.00
Gross Earnings	100,000.00
Pre-Tax Deductions	
NSSF	1,080.00
Sacco	1,000.00
Taxable Pay	97,920.00
Tax Chargeable	24,159.00
Tax Relief	
Personal Relief	1,408.00
PAYE	22,751.00
Post-Tax Deductions	

Fig 3.16a Employee Payslip

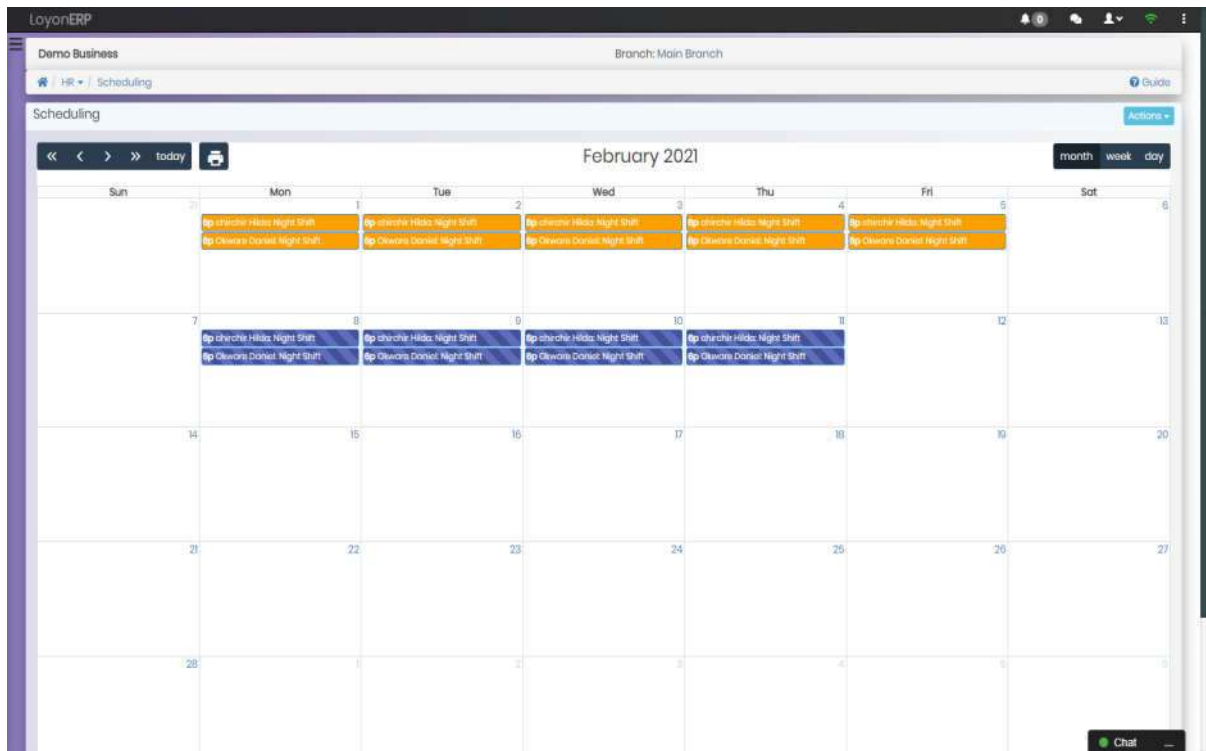


Fig 3.16b Scheduling

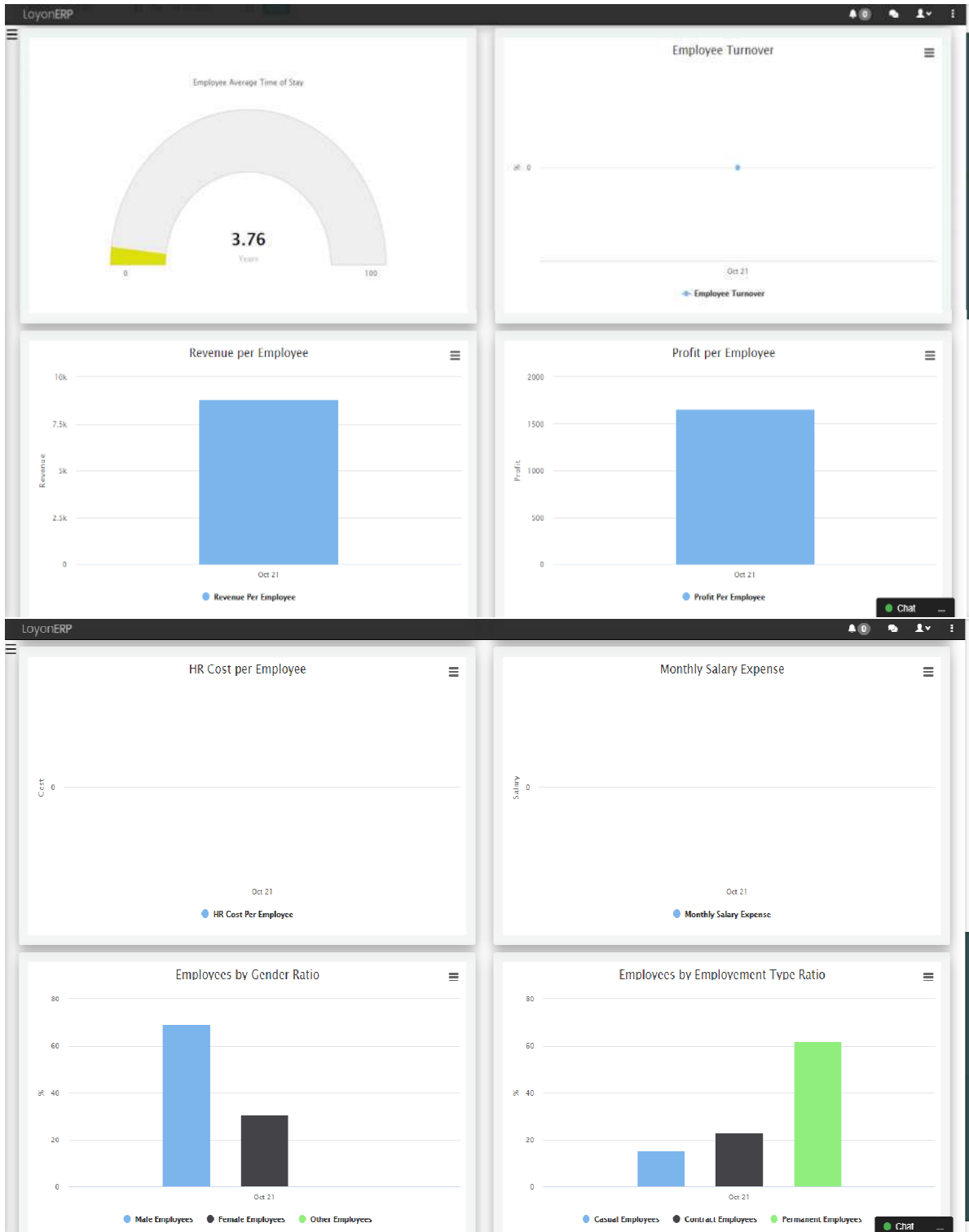


Fig 3.16c HR Dashboard

3.17. Employee Portal

- Request for leave
- View pay slips
- View diary for scheduled tasks
- View Income Tax Deduction Card

3.18. Logistics & Fleet Management

- Licensing and registration, Insurance claims management
- Vehicle maintenance: Schedule Preventive Maintenance based on manufacturer's recommendations
- Create checklists for routine and preventive maintenance
- Driver inspection and reporting
- Track Haulage Load, Return Load & Vehicle Allocation
- Manage Trip Expenses & Freight Memos for each vehicle
- Fuel efficiency. Track Rate of Fuel use against vehicle mileage
- Record Accident Reports
- Manage Vehicle insurance details including Accident Claim, Documents Renewal (Vehicle/Driver), Renewal Alerts

3.19. Administration and Security

- Each user has their own username and password
- Unlimited user groups/roles within distinct privileges
- Assign user privileges according to group role
- Centralized administration and set ups
- Audit trail for all user actions
- System logs
- Supported by high performance Relational Database Management System (RDBMS)
- Automated backups and fail over of the system

3.20. TECHNOLOGY USED

3.20.1. Application Framework

- Microsoft Dot Net Core Framework

3.20.2. Application Architectural Model

- Onion Architecture

3.20.3. Application Programming Style

- Object Oriented Programming (OOP)

3.20.4. Application Internal Organization

All the components in the system are designed around a four-layer structure, namely:

- Presentation (GUI) Layer – provides the user with interaction interface
- Business Logic Layer – all business rules and computations run in this layer.
- Data Access Layer – facilitates communication between the underlying database and the business layer
- Database – all data is stored in this layer

3.20.5. Web Server (Technologies Used)

- C#, Microsoft ASP.Net Core
- SQL (Structured Query Language)
- Nginx

3.20.6. Graphical User Interface (GUI)

The graphical user interface is designed on:

- HTML5/Javascript/CSS
- Bootstrap
- JQuery

3.20.7. Database

- PostgreSQL (default database)
- Oracle
- MS SQL
- MySQL
- MariaDB

3.20.8. Reporting

- FastReport

3.21. SYSTEM REQUIREMENTS

3.21.1. Devices Supported

- Desktops Computers
- Laptops
- Smart phones
- Tablets & Phablets

3.21.2. Browsers Supported

- Google Chrome
- Chrome for Android
- Mozilla Firefox
- Microsoft Edge
- & Internet Explorer
- Safari
- Opera
- Opera mini