**Proposal for ERP (Enterprise Resource Planning) system**

**Prepared By: Vyuvan Info tech**

**Introduction**

Thank you for your interest in partnering with Vyuvan info tech for your Erp project. With well over 100,000 firms offering website development App development services, we know how challenging it can be to find the right agency for your ERP development project.

At Vyuvan info tech, we hold one goal above all others: 100% client satisfaction. Our inhouse team of web designers, App Designers, copywriters, graphic designers, and developers uphold the highest standards for project planning and execution, and we're dedicated to building the perfect website for your company ontime and onbudget.

We've built websites and application for several brands around the world with great success, and are quite excited to get to work on yours.

In this proposal, you'll find examples of our past work along with what we feel is the optimal solution for your project needs, along with the associated delivery timeline, costs, and project terms. Once you've reviewed this proposal thoroughly, simply electronically sign it at the bottom to indicate your approval.  
  
Please contact me directly if you have any queries or concerns.

Thanks again for the opportunity to earn your business!

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**Project Title: ERP (Enterprise resource Planning)**

**Objective:** Develop a customized ERP system to manage operations of a sugarcane factory, integrating functionalities for supply chain management, production, quality control, finance, and more.  
The system will streamline operations and enhance business efficiency.

### ****Scope:**** Designing and implementing a tailored ERP solution that addresses the unique needs of the sugarcane industry, including tracking from farmers, production processes, financial management, and compliance.

### Project Scope Includes As per First meeting

**Core Features:**

* **Supply Chain Management:** Track and manage sugarcane from farmers to production.
* **Production Management:** Oversee scheduling, production processes, and raw material management.
* **Quality Control:** Implement quality checks and reporting.
* **Finance & Accounting:** Manage finances, payroll, budgeting, and financial reporting.
* **Sales & Distribution:** Handle order management, customer relations, and logistics.
* **Reporting & Analytics:** Generate operational reports, sales reports, and financial summaries.
* **Compliance Management**: Ensure adherence to industry regulations and standards

### Scope of work

**Functional Requirements:**

1. **Supply Chain Management**
   * **Farmer Integration:** Track sugarcane sourcing from farmers.
   * **Inventory Management:** Monitor and manage inventory levels.
   * **Procurement:** Manage procurement processes and supplier information.
2. **Production Management**
   * **Production Planning:** Schedule and manage production runs.
   * **Raw Materials Management:** Track and manage raw materials.
   * **Production Tracking:** Monitor production processes and output.
3. **Quality Control**
   * **Quality Checks:** Implement checks at various stages of production.
   * **Data Recording:** Record quality data and analysis.
   * **Reporting:** Generate quality control reports.
4. **Finance & Accounting**
   * **Accounts Management:** Manage accounts payable and receivable.
   * **Payroll:** Handle employee payroll processing.
   * **Budgeting:** Manage budgeting and financial forecasting.
   * **Financial Reporting:** Generate financial statements and reports.
5. **Sales & Distribution**
   * **Order Management:** Process customer orders.
   * **Customer Relationship Management (CRM):** Manage customer interactions and information.
   * **Logistics:** Handle distribution planning and tracking.
6. **Reporting & Analytics**
   * **Operational Reports:** Generate reports on operational metrics.
   * **Sales Reports:** Track and analyze sales data.
   * **Financial Reports:** Produce financial performance reports.
   * **Dashboards:** Create dashboards for realtime insights and decisionmaking.
7. **Compliance Management**
   * **Regulatory Compliance:** Ensure adherence to industry regulations.
   * **Compliance Reporting:** Generate compliancerelated documentation and reports.
8. **User Management & Security**
   * **User Roles:** Define and manage user roles and permissions.
   * **Data Security:** Implement data security measures and access control.
   * **Audit Trails:** Provide audit trails and logs for system activities.

**We are proposing a web based platform for administrative tasks, allowing users to manage various aspects of the ERP system from a desktop or laptop.**

**Key Features:**

* **Dashboard:** Realtime overview of key metrics and system status.
* **User Management:** Admin control over user roles, permissions, and accounts.
* **Supply Chain Management:** Interface for tracking and managing supply chain activities.
* **Production Management:** Tools for scheduling and monitoring production processes.
* **Quality Control:** Access to quality control reports and data.
* **Finance & Accounting:** Financial management tools, including reports, payroll, and budgeting.
* **Sales & Distribution:** Order management, CRM features, and logistics planning.
* **Reporting & Analytics:** Generate and view detailed reports and analytics.
* **Compliance Management:** Ensure adherence to regulations and generate compliance reports.
* **Settings & Configuration:** Customize system settings, manage integrations, and configure system preferences.

**Technology Stack:**

* **FrontEnd:** React.js or Angular for building a responsive and interactive admin interface.
* **BackEnd:** Node.js for serverside logic and API integration.
* **Database:** MongoDB for data storage and management.
* **Hosting:** AWS For reliable and scalable hosting.

**2. Mobile Apps**

**Purpose:** To provide users with mobile access to key features of the ERP system, allowing them to perform tasks onthego.

**Key Features:**

* **Dashboard:** Access realtime metrics and notifications from mobile devices.
* **User Management:** Mobile interface for managing user accounts and roles.
* **Supply Chain Management:** Mobile tools for tracking sugarcane shipments and inventory.
* **Production Management:** View and manage production schedules and processes.
* **Quality Control:** Access and input quality control data from mobile devices.
* **Finance & Accounting:** View financial reports, manage invoices, and track expenses.
* **Sales & Distribution:** Process orders, manage customer interactions, and handle logistics from mobile.
* **Notifications:** Push notifications for important updates and alerts.
* **Reports & Analytics:** View and generate reports from mobile devices.

**Technology Stack**

* **Mobile Development Platforms:**
  + **CrossPlatform (Optional):** React Native or Flutter for developing apps that work on both iOS and Android.
* **BackEnd Integration:** Ensure mobile apps are integrated with the same backend services used by the web admin interface.
* **APIs:** Developing RESTful APIs for data exchange between mobile apps and the ERP system.
* **Push Notifications:** Use Firebase Cloud Messaging (FCM) for sending push notifications to mobile devices.

**3. Development Approach**

A. **Website Admin Interface:**

* **Design:** Create wireframes and mockups for the admin interface.
* **Development:** Build the frontend using React.js or Angular and integrate with the backend services.
* **Testing:** Perform thorough testing to ensure functionality and responsiveness across various devices.

B. **Mobile Apps:**

* **Design:** Design mobilefriendly interfaces and user experiences.
* **Development:** Using a crossplatform framework.
* **Testing:** Conduct testing on multiple devices and operating systems to ensure compatibility and performance.

C. **Integration:**

* **APIs:** Develop and document APIs for integration between the web admin interface, mobile apps, and the ERP system.
* **Data Synchronization:** Ensure realtime data synchronization between the web interface and mobile apps.

D. **Deployment:**

* **Web Admin Interface:** Deploy on a cloud platform with proper security configurations.
* **Mobile Apps:** Publish on app stores (Google Play Store and Apple App Store) and provide necessary updates.

E. **Training & Documentation:**

* **Training:** Provide training for users on how to use both the web admin interface and mobile apps.
* **Documentation:** Create detailed documentation for both the web interface and mobile apps, including user guides and troubleshooting tips.

F. **Support & Maintenance:**

* **Ongoing Support:** Offer support for any issues with the web admin interface and mobile apps.
* **Updates:** Regularly update the web and mobile applications to fix bugs, improve functionality, and add new features. **(optional service)**

**Project Phases includes**

1. **Planning & Requirements Analysis**
   * Conduct detailed requirements gathering sessions.
   * Defining project scope, objectives, and deliverables.
2. **System Design**
   * Design system architecture and database schema.
   * Create user interface designs and user experience flows.
3. **Development**
   * Develop frontend and backend components.
   * Implement database schema and integrate with the application.
4. **Testing**
   * Perform unit, integration, user acceptance, and performance testing.  
     This testing we do before deploying the final product.
5. **Deployment**
   * Prepare production environment, perform final data migration, and launch the ERP system.
   * Provide immediate postlaunch support.
6. **Training & Documentation**
   * Conduct user training sessions.
   * Prepare and distribute user manuals and technical documentation.
7. **Maintenance & Support**
   * Offer ongoing technical support and system maintenance.
   * Monitor system performance and make necessary adjustments.

**User Flow for ERP System**

**1. User Types**

* Admin
* Production Manager
* Quality Control Officer
* Finance Manager
* Sales & Distribution Manager
* Field Staff (Mobile App)
* Farmers (Mobile App)

**2. User Flow Breakdown**  
  
**Admin**

**1. Login**

* Access: Admin logs in via the web admin interface.
* Authentication: Enter credentials (username/password) or use twofactor authentication (2FA).

**2. Dashboard**

* Overview: View realtime metrics, system notifications, and quick links to key modules.

**3. User Management**

* Create/Manage Users: Add new users, assign roles and permissions, and manage existing user accounts.

**4. Supply Chain Management**

* Track Shipments: Monitor sugarcane shipments and manage procurement processes.

**5. Production Management**

* Schedule Production: Oversee production schedules and resource allocation.

**6. Quality Control**

* Review Quality Reports: Access and review quality control data and reports.

**7. Finance & Accounting**

* Financial Overview: Monitor financial status, review budgets, and generate financial reports.

**8. Sales & Distribution**

* Manage Orders: Oversee order processing, manage customer relations, and handle logistics.

**9. Reporting & Analytics**

* Generate Reports: Create and view operational, sales, and financial reports.

**10. Settings & Configuration**

* System Configuration: Configure system settings, integrations, and manage compliance settings.

**11. Logout**

* Exit: Securely log out from the system.

**Production Manager**

* 1. Login
* Access: Production Manager logs in via the web admin interface or mobile app.
* Authentication: Enter credentials.
* 2, Dashboard
* Overview: View production metrics, schedules, and tasks.
* 3. Production Scheduling
* Create/Modify Schedules: Plan and update production schedules.
* Track Progress: Monitor ongoing production activities.
* 4. Raw Materials Management:
* Manage Inventory: View and manage raw material inventory levels.
* 5. Quality Control Integration:
* Access Quality Data: View quality control reports related to production.
* 6. Reporting:
* Generate Production Reports: Create reports on production performance and efficiency.
* Logout:
* Exit: Securely log out from the system.

**Quality Control Officer**

Login:

* Access: Quality Control Officer logs in via the web admin interface or mobile app.
* Authentication: Enter credentials.
* 2. Dashboard:
* Overview: View quality metrics and inspection schedules.
* 3. Quality Checks:
* Perform Checks: Input quality control data from inspections.
* Record Findings: Document any quality issues and corrective actions.
* 4. Generate Reports:
* View Reports: Access quality control reports and analyze data.
* 5. Integration with Production:
* Sync Data: Ensure quality data is integrated with production management.
* 6. Logout:
* Exit: Securely log out from the system.

**Finance Manager**

1. Login:

Access: Finance Manager logs in via the web admin interface.

Authentication: Enter credentials.

* 2. Dashboard:
* Overview: View financial metrics, recent transactions, and alerts.
* 3. Manage Accounts:
* Accounts Payable/Receivable: Review and manage invoices, payments, and receivables.
* 4. Payroll Management:
* Process Payroll: Handle employee payroll and manage salary payments.
* 5. Budgeting & Forecasting:
* Manage Budgets: Review and update budgets and financial forecasts.
* 6. Reporting:
* Generate Financial Reports: Create financial statements, balance sheets, and profit & loss reports.
* Logout:
* Exit: Securely log out from the system.

**Sales & Distribution Manager**

1. Login:

Access: Sales & Distribution Manager logs in via the web admin interface.

Authentication: Enter credentials.

* 2. Dashboard:
* Overview: View sales metrics, order statuses, and distribution logistics.
* 3. Order Management:
* Process Orders: Manage and process customer orders.
* Track Shipments: Oversee the distribution of products.
* 4. Customer Relationship Management:
* Manage CRM: Track and manage customer interactions and relationships.
* 5. Reporting:
* Generate Sales Reports: Create and review sales performance reports.
* 6. Logout:
* Exit: Securely log out from the system.

**Field Staff (Mobile App)**

1. Login:

Access: Field staff logs in via the mobile app.

Authentication: Enter credentials.

* 2. Dashboard:
* Overview: View tasks, notifications, and key metrics.
* 3. Field Data Entry:
* Input Data: Record field data related to sugarcane quality and inventory.
* Track Deliveries: Manage and update delivery statuses.

* 4. Notifications:
* Receive Alerts: Get push notifications for important updates and tasks.
* 5. Reports:
* Generate Reports: Create and view field reports.
* 6. Logout:
* Exit: Securely log out from the mobile app.

**Farmers (Mobile App)**

1. Login:

Access: Farmers log in via the mobile app.

Authentication: Enter credentials.

* 2. Dashboard:
* Overview: View updates, notifications, and relevant information.
* 3. Supply Management:
* Track Deliveries: Update and manage sugarcane deliveries.
* View Orders: Access information about orders and supply requirements.

* 4. Notifications:
* Receive Alerts: Get push notifications for orders, delivery schedules, and updates.
* 5. Reports:
* View Reports: Access reports related to deliveries and performance.
* 6. Logout:
* Exit: Securely log out from the mobile app.

*The user flow ensures that each type of user—Admin, Production Manager, Quality Control Officer, Finance Manager, Sales & Distribution Manager, Field Staff, and Farmers—can efficiently interact with the ERP system according to their specific roles and responsibilities. The flow supports both web and mobile interfaces, providing comprehensive access to the system’s functionalities from various devices.*