



Inntri Labs
n2n Solutions

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INNTRI LABS

SOLUTION PROPOSAL FOR

ESWARAN BROTHERS – Export Management System

Version 1.2

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ABOUT US

Inntri LABS (Pvt) Ltd is at the forefront of innovative software development, delivering tailored and cutting-edge digital solutions to businesses worldwide. Specializing in virtual environments that allow users to visualize and manage business processes with ease, our software empowers companies to make informed decisions through intuitive, real-time data visualization and seamless communication tools. With a focus on minimizing data entry and ensuring a user-friendly experience, our platform is designed by industry veterans to replicate real-life business workflows, making it accessible to users with minimal technical expertise. By offering a robust framework built on security, data integrity, and a strong computational backbone, we guarantee that our clients can focus on growth, while we safeguard their critical data.

What we do

- Enterprise Solutions - CUSTOM ERP Digitizing Business Processes
- Web Solutions - DESIGN & DEVELOP Analyze, Design, Develop and Maintain
- Mobile Solutions - ANDROID / iOS Native, Hybrid and React-Native

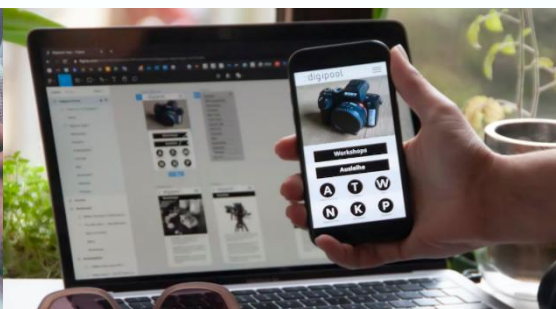
The document consists of the initial understanding of the project, estimation for time and costs alongside the project terms. The cost estimate is done based on the scope, any changes to the initial scope will vary the cost estimate accordingly.

CONTACT US

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1. Introduction

1.1 Purpose

The Export Management System (EMS) is designed to facilitate the entire export process of tea and other products. The system will help the sales, pre-shipment, documentation, CHB (Customs House Brokerage), and logistics teams to efficiently process orders while maintaining an audit trail and tracking shipment progress. The system will be developed in **three phases** to ensure smooth implementation and continuous improvement.

1.2 Scope

- The Sales team will place Delivery Orders (DO) in the existing ERP system, and the EMS system will be updated via an Excel file in the agreed format
 - The Pre-shipment team validates and updates orders to Pre-shipment status for further processing.
 - Orders progress through a **status workflow**, capturing audit logs.
 - Notifications via **email**.
 - Documentation team updates required export documents.
 - **Custom clearance process** with container number updates.
 - Manage **in-transit shipments** with tracking via Google Maps.
 - Integration with **third-party shipping lines** for real-time shipment tracking.
 - **Comprehensive reporting and analytics** for management.
-

2. Phased Development Approach

The system will be developed in three phases:

Phase 1: Core Order Management & Workflow Implementation

- User Management & Authentication
- Delivery Order Pull from ERP
- Order Status Workflow & Audit Logging
- Pre-shipment Team Order Processing
- Documentation team updates required export documents.
- Shipment Preparation (CHB & Custom Clearance)
- Notification System (Email, SMS)
- Management Dashboard (Basic Order Tracking & Status Overview)

Phase 2: Report Implementation & Dashboard Widgets

- **Shipment & Order Reports:** Real-time tracking of shipments, delays, and processing times.
- **Weekly – Delivery Plan:** Week wise delivery plan.
- **Shipment Role Over:** Planned or unplanned shipments are rolled over to the following week due to operational delays, pending documentation, or unavailability of cargo space.
- **Tea Board Status:** This Report provides a comprehensive overview of all tea export consignments that require or have obtained Tea Board approvals.
- **Goods Readiness Date vs Loading Plan:** Provides a comparative overview of when goods are declared ready for shipment versus when they are actually loaded for export.

- **Documentation status:** Provides real-time tracking and visibility into the preparation and completion of export documentation for each shipment.
- **Invoice Aging:** The report segments unpaid invoices into aging brackets.
- **Vendor Invoice Tracking:** Monitoring incoming payments and outstanding balances.
- **Vendor Invoice Status Report:** Displays pending, completed, and overdue payments.

Phase 3: in-transit shipments with tracking

- Integration with Shipping Lines for Tracking
- Google Maps Integration for Transit Tracking
- Container Number & Logistics Tracking Updates
- Automated Notifications for Unexpected Delays

3. Functional Requirements

3.1 User Management & Authentication

- User registration and role-based access control.
- Different user roles: Sales, Pre-shipment, Documentation, Production, CHB, Logistics, Management.
- Authentication through **username/password**.

Role	Permissions & Actions
Admin	Full system access, manage users, view all reports
Sales Team	Create orders, edit orders, view assigned orders
Pre-shipment Team	Approve orders, update order details, request documentation
Documentation Team	Upload and update export documents, set documentation deadlines
CHB (Custom House Brokerage)	Prepare shipment with required certificates, update customs clearance status
Management Team	View dashboards, approve key decisions

3.2 Delivery Order Processing

Once a DO is created, the Export Management System (EMS) automatically retrieves the initial order data from the ERP and displays it within the EMS interface for further processing and tracking.

DO Number

Week

Customer

Plan Date

003057

▼

▼

▼

Q search

DO Number	Week	Plan Date	Customer	Ship to Country	Final Port	Service Status	Action
✓ 003057	14	2025-06-01	TEARTH CO.	Japan	Osaka	OPEN	select >
<div> <div>Payment Term</div> <div>Container Type</div> <div>Shipment Term</div> <div>PO NO.</div> <div>Ship to</div> </div> <div> <div>CAD (30 Days)</div> <div>40FT</div> <div>CIF</div> <div>T24/1103</div> <div>CUST-000233-S1</div> </div>							
DO Number	Week	Plan Date	Customer	Ship to Country	Final Port	Service Status	Action
✓ Orange tea	14	2025-06-01	TEARTH CO.	Japan	Osaka	pre-shipment	select >
DO Number	Week	Plan Date	Customer	Ship to Country	Final Port	Service Status	Action
✓ 003057	14	2025-06-01	TEARTH CO.	Japan	Osaka	OPEN	select >
DO Number	Week	Plan Date	Customer	Ship to Country	Final Port	Service Status	Action
✓ 003057	14	2025-06-01	TEARTH CO.	Japan	Osaka	OPEN	select >
DO Number	Week	Plan Date	Customer	Ship to Country	Final Port	Service Status	Action
✓ 003057	14	2025-06-01	TEARTH CO.	Japan	Osaka	OPEN	select >

3.4 Pre-shipment Team Order Update

Certificates <input type="checkbox"/> Phytosanitary Certificate <input type="checkbox"/> Food Safety Certificate <input type="checkbox"/> Certificate of Origin		Blend Sheet <input type="text"/> <input type="button" value="ADD"/>	
Custdec NO <input type="text"/>		Custdec <input type="text"/> <input type="button" value="ADD"/>	
Shipping Line Detail			
Shipping Line <input type="text"/>	Release Order No <input type="text"/>	Booking No <input type="text"/>	
Estimate Date <input type="text"/>	Estimate Arrival Time <input type="text"/>	Awarded Freight Cost <input type="text"/>	
Average Freight Cost <input type="text"/>	Estimated Transit Time (Hours) <input type="text"/>	Comment <input type="text"/>	
Container Details			
Container type <input type="text"/>	Number Of Containers <input type="text"/>	<input type="button" value="ADD"/>	
Special Handling Instration storage & temperature control			
<input type="checkbox"/> Store in a cool , dry place		<input type="checkbox"/> temperature control required	
<input type="checkbox"/> Humidity control required		<input type="checkbox"/> No direct sunlight explore	
Packaging & protection			
<input type="checkbox"/> Use air-tight packaging		<input type="checkbox"/> Doble seal for export	
<input type="checkbox"/> Use oxygen absorber		<input type="checkbox"/> Fragile - handle with care	

3.5 Documentation Team Order Update

Invoice (Attachment)	<input type="text"/> select	packing list (Attached)	<input type="text"/> select	Insurance (Attached)	<input type="text"/> Select
certificate of origin (coo)	<input type="text"/> select	Type of Certificate of origin	<input type="text"/> ▼	bill of lading number	<input type="text"/>
Bill (Attached)	<input type="text"/> Select	Non - Prefecoo			
Additional Export Document		Submission Deadline		Remark	
Document		10 / 02 / 2024 01 : 00 pm		<input type="text"/>	
<input type="text"/> ▼		<input type="text"/> ▼			
ADD			Submit		

3.6 CHB Team Order Update

Custom Dec. Number	<input type="text"/> ▼	Tea Board Approval	<input type="text"/> Pending ▼
Loading Date	<input type="text"/>	Vessel Cutoff Date	<input type="text"/>
Shipment Arrived Time	<input type="text"/>	Number Of Days To Complete	<input type="text"/>
Transporter	<input type="text"/>	Vehicle Number	<input type="text"/>
		Shipping Charges Completed	<input checked="" type="radio"/> Yes <input type="radio"/> No
		Transport Cost	<input type="text"/>

3.7 Shipment Tracking & Transit Management

- **Integration with third-party shipping lines** for tracking.
- Google Maps integration for **real-time shipment tracking**.
- Define transit points and estimate arrival times.
- If shipment is delayed, system triggers **automatic notifications**.

3.8 Admin Registrations

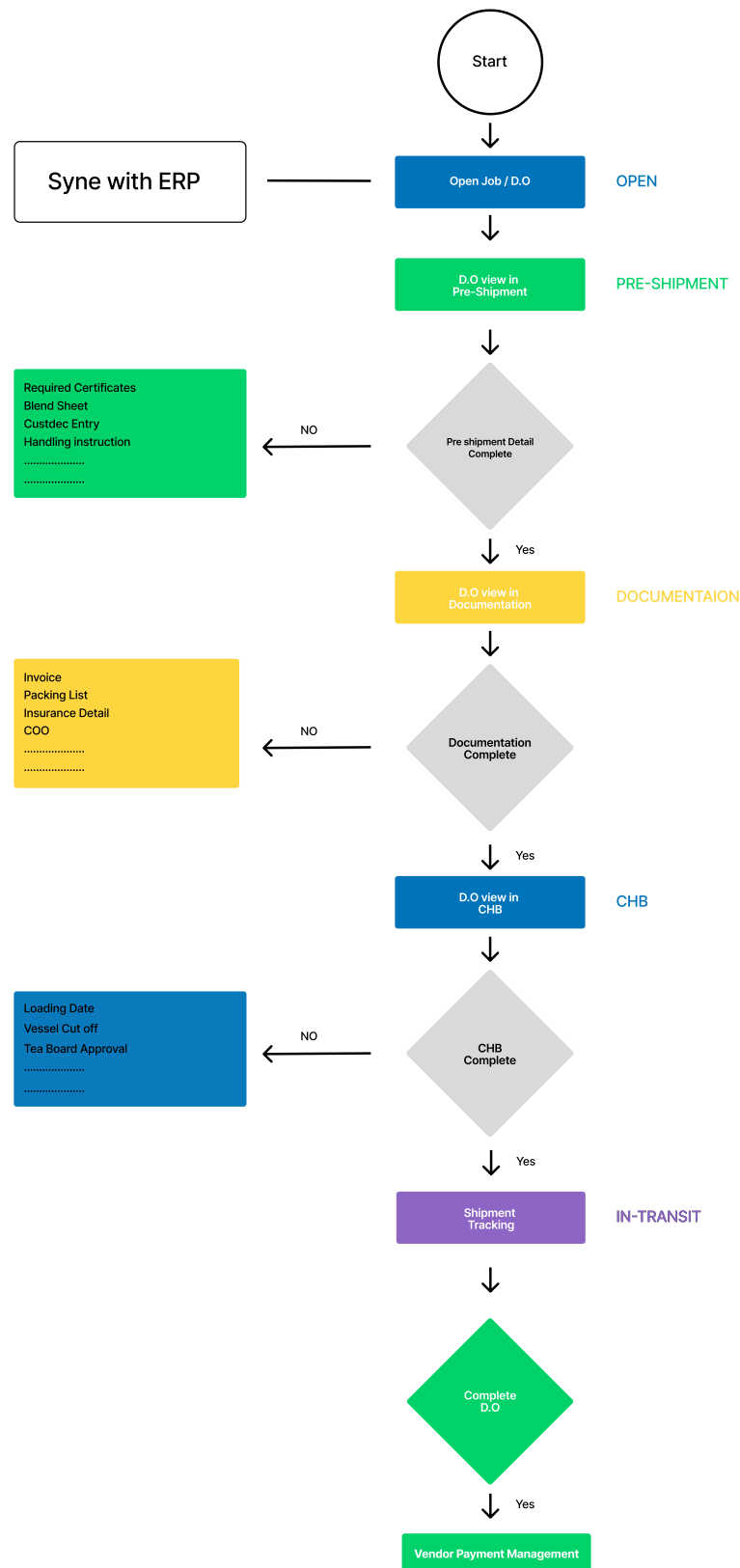
- Vendor Registration Implementation.
- Transporter Registration Implementation.
- Supplier Registration Implementation.
- Trader Registration Implementation.
- Shipment Role Over Implementation.

3.9 Vendor Payment Management

After the shipment is completed, a vendor payment management system needs to be designed to handle payments associated with the amended Delivery Order. This system should accommodate various post-shipment charges, including.

- Insurance bills
- Freight forwarder invoices
- Transportation costs
- Other miscellaneous charges
- Detention fees
- Amendments related to the Bill of Lading (BL).

3.10 EMS Process Flowchart: Streamline Export Operation



4. Reports

- Weekly – Delivery Plan Report
- Shipment Role Over Report
- Week-Wise Shipment Role-Over Summary Report
- Delivery Order Receiving Pattern Report
- Tea Board Status Report
- Goods Readiness Date vs Loading Plan Report
- Documentation status Report
- Invoicing Status Report
- Invoice Aging Report

5. Non-Functional Requirements

5.1 Security & Compliance

- Role-based access control.
- Secure data storage (SSL encryption).
- Compliance with **export regulations and data protection laws**.

5.2 Performance & Scalability

- Handle **high volumes of orders**.
- Optimized database for fast order retrieval.

5.3 Integration Capabilities

- Third-party **shipping line APIs** for tracking.
- Google Maps API for **real-time location tracking**.

6. Technology Stack

System Architecture

6.1 High-Level Architecture

The system will follow a **3-tier architecture**:

1. Presentation Layer (Frontend):

- Web-based UI (React.js)

2. Business Logic Layer (Backend API):

- API-based microservices (Java Spring Boot)
- Authentication using OAuth 2.0 / JWT
- Role-based access control (RBAC)

3. Data Storage Layer (Database):

- **Relational DB (MySQL)** for transactional data

7.PROJECT DEVELOPMENT COSTING

7.1 PROJECT MAINTENANCE AND SUPPORT

Maintenance and Support Includes:

System Maintenance

- **Regular Software Updates**
 - Bug fixes, performance improvements, and new features
- **Third-party API/Integration Updates**
 - Monitoring third-party shipping lines for tracking
- **Database Maintenance**
 - Indexing, cleanup, backups, and performance tuning

Security Management

- **Vulnerability Scanning and Patch Management**
- **User Access Reviews & Role Audits**

- **Audit Logs Monitoring**

Performance Monitoring

- **System Up time Monitoring**
- **Load/Stress Testing (if peak loads are expected)**

Backup & Disaster Recovery

- **Scheduled Data Backups (Daily/Weekly)**
- **Recovery Testing**

7.2 PROJECT DELIVERY DURATION

Milestone Summary:

- Functional Spec Approved: **2025-06-02**
- Phase 01 Developed: **2025-08-07**
- All Modules Developed: **2025-09-20**
- Go-Live: **2025-10-01**

Phase No.	Task / Phase	Description	Start Date	End Date	Duration	Milestone
1	Requirements Gathering	Stakeholder interviews, document collection	2025-03-06	2025-03-13	1 week	Functional Spec Approved
1	System Design &	ERD, modules, tech	2025	2025	1 week	Design Sign-off

	Architecture	stack, UI mockups	-06-02	-06-07		
1	User Management & Authentication	User registration and role-based access control	2025-06-07	2025-06-13	1 week	Authentication Completed
1	Database Design	Schema creation, normalization, test datasets	2025-06-16	2025-06-20	1 weeks	DB Ready
1	Module 1: Sales Management	sales order sync with ERP and Define Weekly shipment	2025-06-23	2025-06-30	1 weeks	Sales Module Completed
1	Module 2: Pre-Shipment Process	Pre-shipment Team Order Processing	2025-07-01	2025-07-07	1 weeks	Pre-Shipment Module Done
1	Module 3: Documentation	Invoice, packing list, commercial docs	2025-07-08	2025-07-15	1 weeks	Docs Module Completed
1	Module 4: Logistics & CHB (Customs House Brokerage)	Shipment booking, Export declaration, customs clearance	2025-07-16	2025-07-23	1 weeks	CHB Module Completed
1	Reporting & Dashboards	Order Management Reports, Weekly – Delivery Plan Report, Tea Board Status Report, Documentation status Report, Dashboards Widget	2025-07-24	2025-08-07	2 week	Reports Completed
2	Integration & Workflow Management	order life cycle tracking Integration with Shipping Lines.	2025-08-11	2025-08-25	2 weeks	Integrated Flow Ready
3	Reporting & Dashboards	Shipment Role Over, Invoicing Status Report	2025-08-26	2025-09-11	3 week	Reports Completed
3	Testing (Unit + UAT)	Unit, system, and user acceptance testing	2025-09-12	2025-09-19	1 weeks	UAT Sign-off
3	Deployment & Training	Production deploy, user training, manuals	2025-09-22	2025-09-30	1 week	Go-Live
3	Support & Feedback Loop	Post-live bug fixes, enhancements	2025-09-26	2025-10-31	4 weeks	Hypercare Period Ended

Approximately 18 **Weeks** to hand over the project to User Acceptance Testing (UAT)

- Project delivery duration mentioned above excludes the client user acceptance testing period.
- Project completion date will be determined with user confirmation of the user acceptance test.
- Any improvement or change request reported by the user during UAT will be estimated separately.

Notes:

1. The above project development cost is for the development of the proposed solution only. The client needs to facilitate access to third-party integration (if any).
2. The project delivery duration mentioned above is to release the development to the client for user acceptance testing. Project completion and go-live dates will be determined once receive confirmation from the client on the user acceptance test.
3. Any improvement or change request reported by the client during UAT will be estimated separately.

7.3 ADDITIONAL SERVICES & FEES

Other Services and Fees – The Client and the service provider may agree to provide additional services about the system. The cost for these additional services will be agreed upon in advance between the Client and the service provider.

7.3.1 HOSTING COSTS

Component	Cost (USD)
AWS HOSTING	100 PER MONTH

7.3.2 THIRD PARTY INTEGRATION SERVICE

Component	Cost (USD)
WHATSAPP MARKETING CONVERSATION	0.073 (per conversation)

7.3.2.1 SHIPMENT TRACKING

Tradlinks' pricing structure is based on the number of Master Bill of Ladings (MBLs) tracked per month. The cost is \$3.00 USD per MBL, regardless of the number of containers associated with it. You can track multiple containers under a single MBL at no additional cost.

The Discount pricing table

Professional		Price by Volume
Plan	# of Shipments (Master B/L)	Volume Discount(%)
Professional	1-70	0%
Enterprise (Pro)	71-499	10%
Enterprise (Pro)	500-999	15%
Enterprise (Pro)	1000-1999	20%
Enterprise (Pro)	2000-2999	25%
Enterprise (Pro)	3000-	30%

Essential		Price by Volume
Plan	# of Shipments (Master B/L)	Volume Discount(%)
Essential	1-70	0%
Essential	71-499	0%
Essential	500-999	5%
Essential	1000-1999	10%
Essential	2000-2999	15%
Essential	3000-	20%

Note

If we require access to tracking data beyond one month, we will need to move to Tradlinks' API integration process. This will involve a **one-time integration fee**, as outlined below.

API Integration Fee ※ One-time pay, no renewal	\$4,500.00	\$ 2,250.00
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8. CONCLUSION

This Export Management System (EMS) will streamline order processing, shipment tracking, and document handling for export businesses. By implementing a structured phase-wise development, the company can ensure a smooth transition and gradual expansion of features.

9. TERMS AND AGREEMENT FOR DESIGN AND DEVELOPMENT

- This proposal is valid for 14 days from the submission date mentioned on the cover page.
- Web Site content Text, Photo, Video) should be supplied by the customer.
- The estimation is for the scope of work given within this quotation. Any additional features beyond the scope given in this quotation will result in the revision of the estimation accordingly.
- This quotation is exclusive of SEO and SEO-related charges.
- Payment Terms
 - 60% advance payment of the Total Project Cost on confirmation of the project is as agreed.
 - 40% of the payment one week after the Go live.
 - Maintenance charges should be paid yearly.
- **Reservation of Rights:** All rights not expressly granted above are retained by the Designer. Any use additional to that expressly granted above requires arrangement for payment of a separate fee.
- The above pricing is for the scope of work given earlier only. Any additional features beyond the scope given in these pages will result in the extension of the project pricing accordingly.
- **Cancellation Fees:** In the event of Cancellation, the Designer will be compensated for services performed through the date of cancellation in the amount of a prorated portion of the fees due. Upon cancellation, all rights to the website revert to the Designer, and all original art must be returned, including sketches, comps, or other preliminary materials.