

Product Requirements Document (PRD)

Trade Ocean Namibia Web-Based Shipping System

Document Version: 1.0 **Date:** December 23, 2025 **Author:** Petrus Nghilukilwa **Project Supervisor:** Mrs. G Rukanda **Institution:** International University of Management

1. Product Overview

The Trade Ocean Namibia Web-Based Shipping System is a digital platform designed to streamline cargo shipment registration, customs documentation submission, freight tracking, and communication for clients across Namibia. It addresses the challenges faced by businesses and individuals in rural and remote areas who struggle with physical access to ports (Walvis Bay) and customs offices (Windhoek).

The system enables remote online management of import/export shipments, reducing travel costs, processing delays, and reliance on manual paper-based processes.

2. Goals & Objectives

- Provide real-time visibility into shipment status and port clearance updates
- Allow remote submission and tracking of shipping documentation
- Reduce dependency on in-person visits to customs and port offices
- Improve operational efficiency for Trade Ocean Namibia and its clients
- Support national trade growth through accessible digital logistics

3. Target Users & Stakeholders

User Role	Description	Key Needs
Customers/Shippers	Businesses and individuals importing/exporting goods	Register shipments, upload documents, track status
Administrators	Trade Ocean staff responsible for operations and customs coordination	Review documents, update statuses, manage users
Guest Users	Anyone with a tracking number	Public shipment tracking

4. Functional Requirements

ID	Feature	Description	Priority
FR01	User Registration & Login	Secure registration, login, password reset; role-based access (customer/admin)	High
FR02	Shipment Registration	Customers create new shipments with sender/receiver details, cargo description, weight	High
FR03	Unique Tracking Number Generation	Auto-generate unique tracking number (e.g., TON-2025-000001)	High
FR04	Document Upload & Management	Upload multiple shipping documents (PDF, images); link to specific shipment	High
FR05	Shipment Status Management	Admin manually updates status; system logs all changes with timestamp and notes	High
FR06	Shipment History & Timeline	Record and display full history of status changes	High
FR07	Public Tracking Page	Anyone can enter tracking number to view current status and history	High
FR08	Customer Dashboard	Logged-in customers view list of their shipments with status and tracking numbers	High
FR09	Admin Dashboard	View/manage all shipments, users, update statuses, view documents	High

FR010	Email Notifications (Future)	Optional: Send status update alerts to customers	Medium
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5. Non-Functional Requirements

Category	Requirement
Usability	Simple, intuitive interface; responsive design (mobile-friendly)
Performance	Page load < 3 seconds on standard broadband/4G
Security	HTTPS, password hashing, role-based access control, input validation
Availability	Target 99% uptime; accessible from any internet-connected device
Language	English only
Accessibility	Basic support; compatible with modern browsers
Data Retention	Documents and history retained for at least 2 years

6. Constraints & Delimitations

- Manual final approval: All status changes and clearances require admin intervention
- No automated integrations with external customs systems
- No payment processing integrated
- Limited to Namibian users and Trade Ocean clients
- Does not support assistive technologies for disabled users
- Operates only in English

7. Technical Stack

- **Frontend:** HTML5, CSS3, Bootstrap 5, JavaScript
- **Backend:** PHP 8+
- **Database:** MySQL
- **Server:** Apache
- **Hosting:** Shared or VPS hosting with PHP/MySQL support

8. Success Metrics

- 80% reduction in physical document submissions within first year
- Average shipment registration time reduced from days to hours
- High user satisfaction from rural clients
- System adopted by at least 50 regular Trade Ocean clients