

# Project Proposal: Proactive WhatsApp AI Bot for eCommerce, B2B, CRM, and Management

Date: July 3, 2025

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## Project Scope and Objectives

The WhatsApp AI Bot will serve as a versatile tool for eCommerce, B2B, CRM, and management functions, with the following objectives:

- Provide instant product information, **order tracking**, and customer support.
- Recognize and personalize interactions for repeat customers and B2B partners.
- Capture and nurture leads for future conversions.
- **Automate returns**, warranty processes, payment reminders, and CRM tasks.
- Support sales growth through viral features like **Lucky Draw and personalized broadcasts**.
- Empower management with real-time analytics, alerts, and business insights.

**The solution will be built using n8n**, leveraging its flexibility, webhook support, and API integrations, with custom nodes to handle specialized functionalities such as sentiment analysis, voice commerce, and multi-language support.

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## Core Features and Implementation Plan

The following features will be implemented using n8n workflows, standard nodes, and custom nodes where necessary to meet the project requirements.

### 1. Shopify Integration

- **Functionality:** Retrieve product details, images, prices, and stock levels; display order status and tracking; place orders via WhatsApp; send automated confirmations and assembly videos.

- **Implementation:** Use n8n's Shopify node for API integration to fetch and push data. Custom nodes will handle WhatsApp number-based customer identification and order placement workflows.

- **Tools:** Shopify API, n8n Shopify node, custom WhatsApp API node.

## 2. Google Sheets Integration

- **Functionality:** Log manual/pre-orders, waitlists, and customer/partner data for CRM.
- **Implementation:** n8n's Google Sheets node to read/write data, with custom nodes for tagging and structuring CRM data.
- **Tools:** Google Sheets API, n8n Google Sheets node.

## 3. Customer Personalization & Capture

- **Functionality:** Collect name, email, and product interest for new users; store and tag leads; greet returning customers with personalized order history.
- **Implementation:** n8n workflows with WhatsApp API for chat interactions, custom nodes for lead tagging and history retrieval.
- **Tools:** WhatsApp Business API, n8n HTTP Request node, custom CRM nodes.

## 4. Follow-Up & Notifications

- **Functionality:** Auto-follow-up with non-buyers, send restock notifications for waitlisted users.
- **Implementation:** Scheduled n8n workflows to trigger follow-ups and notifications based on user activity and stock updates.
- **Tools:** n8n Schedule node, WhatsApp API.

## 5. Broadcasts & CRM Segmentation

- **Functionality:** Group users by interests/order stage, send Meta-approved broadcasts.
- **Implementation:** n8n workflows to segment users and trigger broadcasts, with custom nodes for Meta compliance checks.
- **Tools:** WhatsApp Business API, n8n.

## 6. WhatsApp CRM Functions

- **Functionality:** Maintain chat history, tag, filter, and manage users.
- **Implementation:** Custom n8n nodes to store and retrieve chat history, with workflows for tagging and filtering.
- **Tools:** n8n, WhatsApp API, custom database nodes.

## 7. B2B Partner Handling

- **Functionality:** **Recognize B2B partners**, show partner-specific pricing, manage credit and invoices.
- **Implementation:** Custom n8n nodes for B2B logic, integrated with Shopify/ERP APIs for pricing and credit checks.
- **Tools:** Shopify API, QuickBooks/Odoo API, n8n.

## 8. Returns & Warranty Automation

- **Functionality:** Manage returns (RMA), track refunds within a 14-day window.
- **Implementation:** n8n workflows for RMA processes, integrated with Shopify for status updates.
- **Tools:** Shopify API, n8n.

## 9. ERP Integration (QuickBooks/Odoo)

- **Functionality:** Sync orders, validate invoices, support **future Odoo compatibility**.
- **Implementation:** n8n QuickBooks node for initial integration, custom nodes for Odoo compatibility.
- **Tools:** QuickBooks API, n8n.

## 10. Birthday & Personal Greetings

- **Functionality:** Send automated birthday/special occasion greetings.
- **Implementation:** n8n Schedule node with Google Sheets integration for customer data.
- **Tools:** Google Sheets API, WhatsApp API.

## 11. Payment Reminders

- **Functionality:** Send reminders with order/invoice details and payment links.
- **Implementation:** n8n workflows for scheduled reminders, integrated with payment gateways.
- **Tools:** WhatsApp API, payment gateway APIs.

## 12. Assembly Videos & Support Content

- **Functionality:** Send model-specific videos and support documents.
- **Implementation:** n8n workflows to trigger content delivery based on user queries.
- **Tools:** WhatsApp API, cloud storage APIs (e.g., Google Drive).

## 13. Management Analytics & Alerts

- **Functionality:** Share sales stats, inventory, KPIs, and alerts for management.
- **Implementation:** Custom n8n nodes for analytics generation, integrated with Shopify/Google Sheets for data.

- **Tools:** Shopify API, Google Sheets API, WhatsApp API.

## 14. Human Handoff/Escalation

- **Functionality:** Escalate complex queries to human agents with chat history.
- **Implementation:** n8n workflows to detect escalation triggers and forward chats.
- **Tools:** WhatsApp API, n8n.

## 15. Lucky Draw Segment (Viral Engagement)

- **Functionality:** Manage Lucky Draw participation, track referrals, and notify winners.
- **Implementation:** Custom n8n nodes for referral tracking and point calculation, with scheduled workflows for winner selection.
- **Tools:** WhatsApp API, n8n.

## Advanced & Future-Ready Features

- **Proactive Cart Recovery:** Custom nodes to detect cart abandonment and trigger offers.
- **AI-Powered Recommendations:** Custom nodes for product suggestion logic based on purchase history.
- **Automated FAQs:** Google Sheets-based knowledge base with n8n workflows for query handling.
- **Live Tracking Map:** Custom nodes for courier API integration (TCS, Leopard, BlueEx).
- **Customer Feedback:** n8n workflows for post-delivery feedback and NPS collection.
- **Smart Upsell/Cross-sell:** Custom nodes for upselling logic.
- **WhatsApp ChatWidget :** Custom node for website integration.
- **Multi-Language Support:** Custom nodes for English/Urdu switching.
- **Voice Commerce:** Custom nodes for voice-to-text processing (future phase).
- **AI Sentiment Analysis:** Custom nodes for mood detection.
- **Inventory Alerts:** n8n workflows for B2B restock notifications.
- **VIP Customer Recognition:** Custom nodes for VIP logic.
- **Human-Agent FeedbackLoop :** n8n workflows for feedback collection.

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## Technical Approach

- **Platform:** n8n for workflow automation, with custom nodes for advanced features like sentiment analysis, voice commerce, and referral tracking.
- **Integrations:** Shopify, Google Sheets, QuickBooks, WhatsApp Business API, and courier APIs (TCS, Leopard, BlueEx).
- **Scalability:** Designed for future expansion to Instagram, Voice, and Web channels.
- **Compliance:** Adheres to Meta's WhatsApp policies and data privacy regulations (e.g., GDPR).

- **Custom Nodes:** Developed in JavaScript/Node.js to handle specialized logic (e.g., AI recommendations, Lucky Draw, multi-language support).
  - **Testing:** End-to-end testing for all workflows, integrations, and user scenarios.
  - **Training:** Hands-on training in Urdu/English, with Q&A sessions and documentation.
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## Delivery Plan

The project will be delivered in phases with milestone approvals:

### 1. Phase 1: Setup & Core Integrations (1 weeks)

- Shopify, Google Sheets, and WhatsApp API setup.
- Customer personalization and CRM workflows.

### 2. Phase 2: Advanced Features & Automation (2 weeks)

- B2B handling, returns, payment reminders, and analytics.
- Lucky Draw and broadcast features.

### 3. Phase 3: Testing, Training, & Delivery (3 weeks)

- End-to-end testing, hands-on training, and documentation.
- Delivery of feature checklist and confirmation.

**Total Duration:** 5 weeks

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## Growth Opportunities

To enhance business results, we propose the following additional features:

1. **Dynamic Pricing:** Adjust prices based on customer loyalty or order volume.
2. **Automated Reorder Suggestions:** Predict B2B reorder needs using historical data.
3. **Social Media Amplification:** Share Lucky Draw results on social platforms for viral engagement.
4. **Gamified Loyalty Program:** Reward repeat customers with points for purchases and referrals.
5. **AI-Driven Insights:** Use purchase data to identify high-demand products and optimize inventory.

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## **Commitment to Success**

We are committed to delivering a fully functional WhatsApp AI Bot tailored to your needs, with:

- Comprehensive testing to ensure reliability and uptime.
- Hands-on training in Urdu/English, including Q&A and support.
- Written confirmation and a feature checklist upon delivery.
- Scalability for future upgrades (e.g., Instagram, Voice) by agreement.