

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

Date: July 3, 2025

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.

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.

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

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.

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.