

# DejaVu Tours

## Luna WhatsApp Assistant

### An Intelligent Multilingual Sales Assistant

<b>Project Type:</b>	n8n Workflow Automation
<b>Platform:</b>	WhatsApp Business API
<b>Industry:</b>	Travel & Tourism
<b>Location:</b>	Bali, Indonesia
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# 1. Executive Summary

Luna is an intelligent WhatsApp sales assistant built with n8n that automates the entire customer journey for DejaVu Tours in Bali. The system handles customer qualification, provides personalized package recommendations, answers questions using AI-powered search, and schedules sales calls based on business hours. With built-in spam protection and multilingual support, Luna provides a seamless experience for tourists planning their Bali adventure.

# 2. What Luna Does

- **Greets customers** in their language and qualifies them with simple questions
- **Recommends personalized Bali packages** (Family or Couple)
- **Answers package questions** using AI-powered search via Pinecone vector database
- **Schedules sales calls** based on business hours (09:00 - 18:00)
- **Prevents spam** with intelligent rate limiting and keyword detection
- **Sends weekly reports** to track leads and conversions

# 3. Technical Architecture

## Core Technologies

<b>Component</b>	<b>Technology</b>	<b>Purpose</b>
Workflow Engine	n8n	Automation platform
Database	Airtable	Customer data & package catalog
Vector Search	Pinecone	Package information retrieval
AI Engine	OpenAI GPT-4.1	Conversations & qualification
Chat Memory	MongoDB	Conversation history storage

## How It Works

WhatsApp Message → Spam Check → User Lookup → AI Agent → Response ↓ Update  
Airtable & MongoDB

## 4. Customer Journey States

Luna guides users through four distinct states, ensuring a smooth and personalized experience:

<b>State</b>	<b>Description</b>	<b>Actions</b>
NEW	First-time visitor	Sends friendly greeting
QUALIFYING	Data collection phase	Collects: name, country, dates, package type, group size
SELECTING	Package browsing	Generates package link, answers questions (max 10)
RETURNING	Previous customer	Recognizes by name, offers to continue or explore new

## 5. Database Structure

The system uses Airtable as the primary database with three key tables for managing customers, preventing spam, and handling blocklists. Base ID: **appE9PPe6PtxpWYhP**

### Table 1: Qualification\_table

Stores customer information and conversation state

<b>Field Name</b>	<b>Type</b>	<b>Description</b>
wa_id	String	WhatsApp ID (unique identifier)
Full Name	String	Customer's full name
country	String	Country of origin
group size	Number	Number of travelers
travel dates	String	Format: YYYY-MM-DD to YYYY-MM-DD
Package Type	Options	Family or Couple
Selected Package Name	String	Generated package URL
no of questions	Number	Questions asked (max 10)
status	Options	NEW/QUALIFYING/SELECTING/RETURNING

### Table 2: rate\_limiting

Tracks message frequency to prevent spam

<b>Field Name</b>	<b>Type</b>	<b>Description</b>
wa_id	String	WhatsApp ID
message	String	Message content
Created time	Auto-generated	Timestamp of message

### Table 3: List (Blocklist)

Manages blocked users

<b>Field Name</b>	<b>Type</b>	<b>Description</b>
wa_id	String	WhatsApp ID

Name	String	User name (optional)
Status	String	Normal or Blocked

## 6. Key Features

### 6.1 Intelligent Package Recommendation

Luna generates custom package links based on trip duration, automatically calculating the number of days and nights. The system supports two package categories:

- **Family Packages:** [https://dejavubali.com/FM-\[DAYS\]D\[NIGHTS\]N](https://dejavubali.com/FM-[DAYS]D[NIGHTS]N)
- **Couple Packages:** [https://dejavubali.com/HM-\[DAYS\]D\[NIGHTS\]N](https://dejavubali.com/HM-[DAYS]D[NIGHTS]N)
- **Example:** 8-day trip → FM-8D7N or HM-8D7N (8 Days, 7 Nights)

### 6.2 Smart Question Quota System

To ensure efficient resource utilization and encourage direct sales engagement, Luna implements a question limit system:

- Each user can ask **up to 10 detailed questions** about packages
- Uses Pinecone vector search to find relevant answers from the knowledge base
- After 10 questions, Luna suggests scheduling a call with a specialist
- Question count is tracked in the 'no of questions' field in Airtable

### 6.3 Group Size Handling

The system intelligently routes customers based on their group size:

- **Groups ≤10 people:** Continue with self-service flow
- **Groups >10 people:** Automatically route to a specialist for custom planning

### 6.4 Comprehensive Spam Protection

Luna employs multiple layers of spam detection to maintain conversation quality:

<b>Mechanism</b>	<b>Trigger</b>	<b>Action</b>
Rate Limiting	≥10 messages in 5 minutes	Block user
Keyword Detection	Spam phrases (e.g., "click here", "free money", "bitcoin")	Flag/Block
URL Spam	More than 3 URLs in message	Block message

### 6.5 Business Hours Management

Luna adapts its behavior based on DejaVu Tours' operating hours:

- **Operating Hours:** 09:00 - 18:00 (server timezone)
- **During business hours:** Notifies sales team for immediate follow-up
- **After hours:** Sends booking link: <https://schedule.dejavubali.com/>

## 6.6 Multilingual Support

Luna detects and responds in the customer's preferred language using OpenAI's advanced language detection capabilities, ensuring seamless communication with international travelers.



## 7. AI Models Used

Luna leverages different OpenAI models optimized for specific tasks:

<b>&lt;b&gt;Purpose&lt;/b&gt;</b>	<b>&lt;b&gt;Model&lt;/b&gt;</b>	<b>&lt;b&gt;Temperature&lt;/b&gt;</b>
Greeting & Qualification	GPT-4.1-mini	0.2 - 0.3
Package Selection	GPT-4.1	Default
Embeddings (Pinecone)	OpenAI text-embedding	512 dimensions

## 8. Conversation Memory

All conversations are stored in MongoDB to enable context-aware interactions:

- **Database:** dejaVu
- **Collection:** dejaVu
- **Key:** wa\_id (WhatsApp ID)
- **Purpose:** Remembers context across conversations and recognizes returning customers

## Weekly Reporting

An automated scheduler generates weekly reports showing:

- New leads from the past 7 days
- Conversion status
- Customer demographics
- Engagement metrics

## 9. n8n Workflow Visualization

Below is the complete n8n workflow diagram showing all the interconnected components, decision nodes, and data flows that power Luna's intelligent conversation handling:

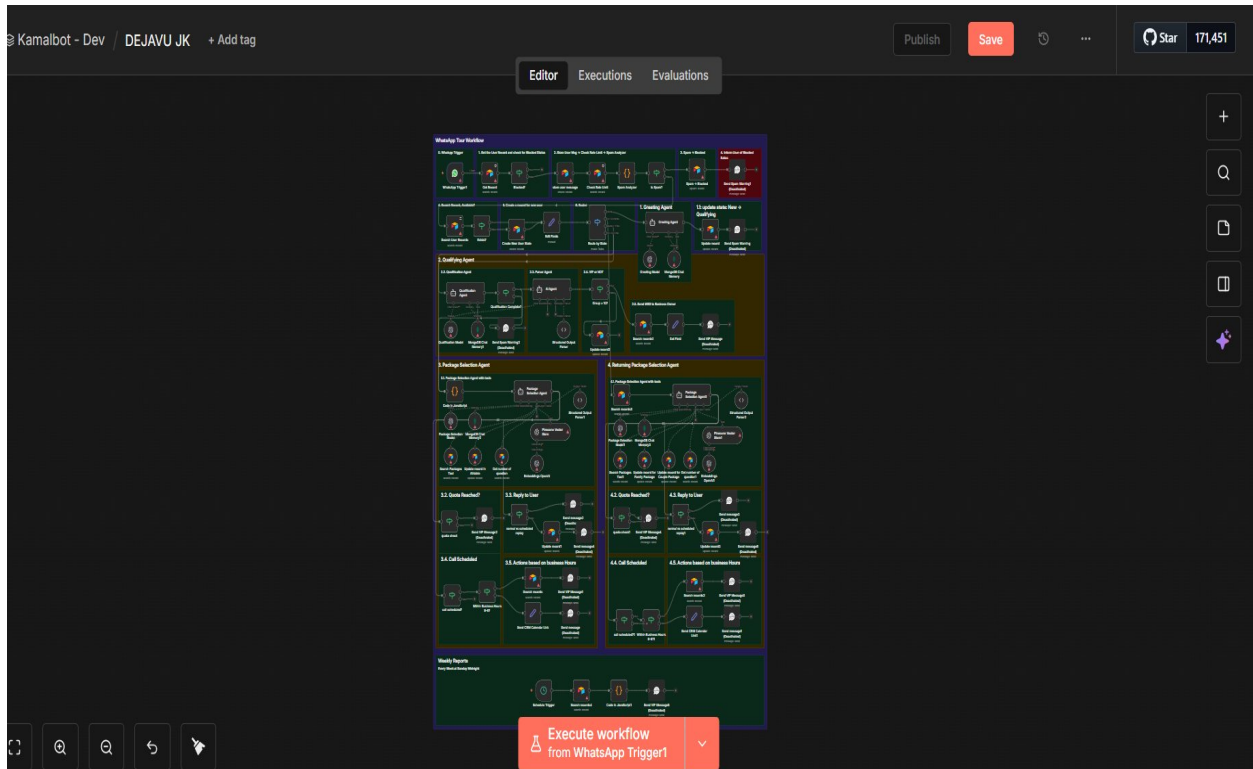


Figure 1: Complete n8n workflow architecture

## 10. Setup Requirements

To deploy Luna, you'll need the following infrastructure:

- ✓ **n8n instance** (self-hosted or cloud)
- ✓ **Airtable account** with base ID: appE9PPe6PtxpWYhP
- ✓ **Pinecone account** with index: dejavu (512 dimensions)
- ✓ **OpenAI API key** with access to GPT-4.1 models
- ✓ **MongoDB instance** for conversation storage
- ✓ **WhatsApp Business API** access

### Configuration Checklist

- Set up Airtable base with all three tables
- Configure Pinecone index with package information
- Add OpenAI API credentials to n8n
- Connect MongoDB for chat history
- Set up WhatsApp webhook trigger
- Configure business hours timezone
- Enable weekly report scheduler
- Test spam detection rules

## 11. Sample Interactions

### First Contact

*Luna:* "Welcome to DeJaVu Tours! ■ I'm Luna, your Bali travel assistant. May I have your name?"  
*Customer:* "Hi, I'm Sarah" *Luna:* "Nice to meet you, Sarah! Which country are you traveling from?"  
*Customer:* "United States" *Luna:* "Great! When are you planning to visit Bali?" *Customer:* "From March 15 to March 22, 2026" *Luna:* "Perfect! Will this be a family trip or a couple's getaway?" *Customer:* "It's a family trip" *Luna:* "How many people will be traveling?" *Customer:* "Four of us - two adults and two kids"

### Package Recommendation

*Luna:* "Perfect! Based on your 8-day family trip from March 15-22, I recommend this package: <https://dejavubali.com/FM-8D7N> This package includes accommodation, daily tours, and meals. Would you like to know more details, or shall I schedule a call with our team to discuss this further?"

### Question Limit Reached

*Customer:* [After asking 10 questions] "And what about transportation between hotels?" *Luna:* "You've reached the limit for detailed package questions. I'd love to schedule a call with our specialist who can answer all your remaining questions in detail! They're available during business hours (09:00 - 18:00). Would you like to book a call at <https://schedule.dejavubali.com/?>"

### Returning Customer Recognition

*Luna:* "Welcome back, Sarah! ■ I see you previously looked at our FM-8D7N family package. Would you like to continue with that package or explore other options?"

# Workflow Logic

## New Customer Flow

1. Receive WhatsApp message 2. Check blocklist → If blocked, stop 3. Rate limit check → If spam, block 4. Look up user in Airtable 5. If new → Create record (status: NEW) 6. Send greeting → Set status: QUALIFYING 7. Ask qualification questions one by one 8. Generate package link → Set status: SELECTING 9. Answer questions (up to 10) using Pinecone 10. Offer call scheduling

## Returning Customer Flow

1. Recognize user by wa\_id 2. Greet by name + mention previous package 3. Offer to continue or explore alternatives 4. Apply same quota and scheduling logic

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**Built with ♥■ for DeJaVu Tours Bali**

For technical support or workflow modifications, please contact the development team.