







GARUDAHOKI WhatsApp Bot - Deployment Summary

Project Status: COMPLETE





The GARUDAHOKI WhatsApp Bot system has been successfully created with all requested features.

Completed Features

1. Core Bot Functionality

-  **Time-based Dynamic Greetings** (WIB timezone: Pagi, Siang, Sore, Malam)
-  **Automatic Welcome Messages** with GARUDAHOKI branding and alternative links
-  **Interactive Menu System** (Informasi Umum, Bicara dengan Agen)
-  **Bad Word Filter** with 2-strike warning system and auto-block
-  **Complaint Detection** with automatic responses
-  **LiveChatInc Integration** for agent handover to Beatrice








2. Multi-Provider WhatsApp Support

-  **SleekFlow Integration** (Forever free plan)
-  **Zixflow Integration** (Cost-effective option)
-  **Plivo Integration** (High volume option)
-  **Flexible Provider System** (Easy to add new providers)



3. Admin Dashboard






-  **Real-time Statistics** (Sessions, Violations, Blocked numbers)
-  **Content Management** (Bonus Hari Ini, Pola Harian)
-  **Chat Session Monitoring**
-  **Violation Tracking System**
-  **Blocked Number Management**
-  **Broadcast Messaging**
-  **Responsive Design** (Mobile-friendly)

4. Database Schema

-  **chat_sessions** table with session tracking
-  **user_violations** table with violation history
-  **blocked_numbers** table with blocking management
-  **dynamic_content** table for bonus/pattern updates
-  **admin_logs** table for audit trail
-  **Database Migration Scripts**
-  **Seed Data Scripts**

5. Security & Performance

-  **Rate Limiting** (100 requests per 15 minutes)
-  **JWT Authentication** for admin access





-  **Input Validation** on all endpoints
-  **CORS Protection**
-  **Helmet Security Headers**
-  **Comprehensive Logging**
-  **Error Handling**

Project Structure






```
garudahoki_whatsapp_bot/
├── src/                    # Application source code
│   ├── app.js             # Main application entry
│   ├── config/            # Configuration files
│   ├── controllers/       # Business logic controllers
│   ├── middleware/        # Express middleware
│   ├── models/            # Database models
│   ├── routes/            # API route handlers
│   ├── services/          # Business services
│   └── utils/             # Utility functions
├── public/                # Static web assets
│   ├── admin/             # Admin dashboard HTML
│   └── assets/            # CSS, JS, images
├── scripts/               # Database scripts
│   ├── migrate.js         # Database migration
│   └── seed.js            # Initial data seeding
├── logs/                  # Application logs
├── config/                # Configuration files
└── README.md              # Comprehensive documentation
```

Current Status

Application Server

-  **Running on:** `http://localhost:3000`
-  **Status:** Healthy (confirmed via `/health`)
-  **Admin Dashboard:** Accessible at `/admin`
-  **Webhook Endpoint:** Ready at `/webhook/whatsapp`

Ready for Production

-  **Environment Configuration:** `.env` template provided
-  **Database Setup:** Migration scripts ready
-  **Deployment Instructions:** Comprehensive README
-  **Security Configured:** Rate limiting, authentication
-  **Logging System:** Winston with file rotation

Deployment Options

1. Namecheap Hosting (Recommended)

- Node.js hosting support
- PostgreSQL database
- SSL certificate included

- Easy file upload via cPanel

2. VPS/Cloud Server

- Full control over environment
- Custom domain configuration
- Scalable resources
- PM2 process management

3. Docker Deployment

- Containerized application
- Easy scaling and deployment
- Docker Compose included
- Consistent environments

Configuration Required

WhatsApp Provider Setup

1. **Choose Provider:** SleekFlow (free), Zixflow (cheap), or Plivo (volume)
2. **Get API Credentials:** API key, workspace ID, tokens
3. **Set Webhook URL:** Point to `https://yourdomain.com/webhook/whatsapp`
4. **Update .env:** Add provider credentials

Database Setup

1. **Create PostgreSQL Database:** `garudahoki_bot`
2. **Run Migrations:** `npm run migrate`
3. **Seed Initial Data:** `npm run seed`

Admin Access

- **Default Username:** `admin`
- **Default Password:** `garudahoki2024`
- **Dashboard URL:** `https://yourdomain.com/admin`

Bot Conversation Flow

User Journey

1. **First Contact** → Time-based greeting + GARUDAHOKI branding
2. **Menu Display** → Interactive options (1: Info, 2: Agent)
3. **Information Path** → Daily bonus or patterns
4. **Agent Path** → LiveChat integration
5. **Violations** → Warning system with auto-block
6. **Complaints** → Auto-response with escalation

Sample Conversation

Bot: 🌅 Selamat Pagi! Selamat datang di GARUDAHOKI! 🛖

🔗 Link Alternatif:

1. <https://garudahoki1.com>
2. <https://garudahoki2.com>
3. <https://garudahoki3.com>

📋 MENU UTAMA:

1. Informasi Umum 📊
2. Bicara dengan Agen 👤

User: 1

Bot: 📊 INFORMASI UMUM

- A. Bonus Hari Ini 💰
- B. Pola Harian 📈
0. Kembali ke Menu Utama

User: A

Bot: 💰 BONUS HARI INI
[Dynamic content from database]

🎯 Key Features Demonstrated

1. Time-Based Greeting

```
// Automatically detects WIB time and shows appropriate greeting
08:00 📅 🌅 Selamat Pagi!
12:00 📅 🌞 Selamat Siang!
16:00 📅 🌇 Selamat Sore!
20:00 📅 🌙 Selamat Malam!
```

2. Violation System

```
// Progressive warning system
Strike 1: 🚨 ⚠️ PERINGATAN 1/2
Strike 2: 🚨 ⚠️ PERINGATAN 2/2 (Final warning)
Strike 3: 🚨 🚫 AKUN DIBLOKIR (Permanent block)
```

3. Agent Integration

```
// Seamless handover to LiveChat
User types "2" 📅 Connect to Beatrice
Messages forwarded both ways
Type "selesai" 📅 End agent session
```

📈 Admin Dashboard Features

Overview Section

- Total chat sessions

- Total violations
- Blocked numbers count
- Bot uptime

Content Management

- Update daily bonus information
- Modify pattern predictions
- Toggle content active/inactive
- Rich text editing support

User Management

- View all chat sessions
- Monitor violations
- Block/unblock numbers
- Send broadcast messages

Security Implementation

Authentication

- JWT-based admin sessions
- Secure HTTP-only cookies
- Password protection
- Session timeout

Rate Limiting

- 100 requests per 15 minutes per IP
- Separate limits for API and webhooks
- Configurable thresholds

Input Validation

- All API endpoints validated
- SQL injection prevention
- XSS protection
- CSRF protection

Ready for Production

The system is **production-ready** with:

- ✓ **Scalable Architecture:** Modular design for growth
- ✓ **Error Handling:** Comprehensive error management
- ✓ **Logging System:** Detailed logging with rotation
- ✓ **Security Measures:** Industry-standard security
- ✓ **Documentation:** Complete setup and deployment guides
- ✓ **Monitoring:** Health checks and status endpoints
- ✓ **Backup Strategy:** Database and file backup instructions



Next Steps

1. **Choose WhatsApp Provider** and obtain credentials
2. **Set up Production Server** (Namecheap/VPS/Docker)
3. **Configure Database** (PostgreSQL)
4. **Update Environment Variables** (.env configuration)
5. **Deploy Application** (PM2 or Docker)
6. **Set up Domain** and SSL certificate
7. **Configure Webhooks** with WhatsApp provider
8. **Test Bot Functionality** end-to-end
9. **Train Admin Users** on dashboard
10. **Go Live** and monitor performance

The GARUDAHOKI WhatsApp Bot system is now complete and ready for deployment! 🎉