

# Task 2 – Humanlike AI WhatsApp Chat Agent

 **Date** [🔗](#)

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 **Participants** [🔗](#)

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 [Task 2 documentation link](#) [🔗](#)

 **Project Overview** [🔗](#)

This project implements a smart AI-powered WhatsApp assistant using Twilio, DeepSeek (LLM), and Airtable CRM. The assistant acts as a friendly, engaging shoe brand bot named **Bob**, capable of understanding customer queries, providing intelligent product recommendations, and triggering personalized follow-ups when users don't respond.

The entire flow is built in **n8n**, following a modular, scalable structure to manage both initial and follow-up conversations.

 **Technologies Used** [🔗](#)

Tool	Purpose
n8n	Workflow orchestration
Twilio WhatsApp API	Receiving and sending WhatsApp messages
DeepSeek LLM	Generating intelligent, friendly, humanlike replies
Airtable	CRM - Logging user messages and bot replies

 **Workflow Summary** [🔗](#)

**Detailed Flow** [🔗](#)

```
1
2 Start (Webhook)
3 ↓
4 Search Airtable (by Customer)
5 ↓
6 If Node – Is user found?
7 |— True → (New User / First Message)
8 |   ↓
9 |   Prepare for LLM (build message from webhook)
```

```

10 |      ↓
11 |      Simulate Hubspot API (mock product, promo)
12 |      ↓
13 |      Build Prompt Text
14 |      ↓
15 |      Build JSON for LLM (DeepSeek)
16 |      ↓
17 |      LLM - Friendly Reply Generator
18 |      ↓
19 |      Send WhatsApp Reply (via Twilio)
20 |      ↓
21 |      Create Airtable Record (Log Message)
22 |      ↓
23 |      Wait (e.g., 5 min)
24 |      ↓
25 |      Search Airtable (for user, after timestamp)
26 |      ↓
27 |      If Node: Did user reply?
28 |      |   └─ True → Do Nothing
29 |      |   └─ False → Send Follow-Up Message → Log Follow-Up
30 |      ↓
31 |      └─ False → (Old User)
32 |      ↓
33 |      Function Node: Build Chat History (sort prev messages)
34 |      ↓
35 |      Prepare for LLM (extract current msg)
36 |      ↓
37 |      Simulate Hubspot API
38 |      ↓
39 |      Build Prompt Text (include history)
40 |      ↓
41 |      Build JSON (DeepSeek format)
42 |      ↓
43 |      LLM - Friendly Reply Generator
44 |      ↓
45 |      Send WhatsApp Reply
46 |      ↓
47 |      Create Airtable Record
48 |      ↓
49 |      Wait (e.g., 5 min)
50 |      ↓
51 |      Search Airtable (for new reply after timestamp)
52 |      ↓
53 |      If Node: Did user reply?
54 |      |   └─ True → Do Nothing
55 |      |   └─ False → Send Follow-Up → Log Follow-Up

```

## Webhook Trigger [🔗](#)

- **Trigger:** When user sends a WhatsApp message
- **Captured Data:** From, To, Body

## Airtable Setup [🔗](#)

- **Table Name:** Table 1
- **Fields:**

- **Customer** (Single line text)
- **User Message** (Long text)
- **Bot Reply** (Long text)
- **Timestamp** (DateTime)
- **Message Type** (Single select: `initial`, `followup1`, `followup2`)

## Step-by-Step Node Details [🔗](#)

### 1. Search Airtable (User Exists) [🔗](#)

- **Purpose:** Determine if this user has interacted before
- **Filter Formula:**

```
1 {{Customer}} = '{{ $json.From }}'
2
```

### 2. IF Node: New or Old User [🔗](#)

- **Condition:**

```
1 '{{ $json.length }}' is equal to 0
2
```

## New User Flow [🔗](#)

### 3. Simulate HubSpot API (Set Node) [🔗](#)

- Output Sample:

```
1 {
2   "productRecommendation": "Nike Downshifter RM199 🏃 Light and comfy untuk jog
   petang!",
3   "promotionInfo": "Buy 1 get 30% off on 2nd pair today only!"
4 }
5
```

### 4. Prepare Prompt (Set Node) [🔗](#)

```
1 {
2   "model": "deepseek-chat",
3   "messages": [
4     {
5       "role": "system",
6       "content": "You are Bob 🧑 - a friendly, funny, emotional AI WhatsApp assistant
   for a shoe brand..."
7     },
8     {
9       "role": "user",
10      "content": "User message: '{{ $json.body.Body }}'\nSuggested Product: '{{
   $node['Simulate HubSpot API'].json.productRecommendation }}'\nPromotion: '{{
   $node['Simulate HubSpot API'].json.promotionInfo }}'"
11    }
12  ]
13 }
```

```

11     $node['Simulate HubSpot API'].json.promotionInfo }}"
12   },
13   "temperature": 0.8
14 }
15

```

## 5. LLM Generator (DeepSeek) [🔗](#)

- Uses above JSON as request payload
- Outputs a friendly reply

## 6. Send WhatsApp Reply (Twilio) [🔗](#)

- Sends reply to user
- ⚠️ **Sandbox Restriction:** Max 10 unique outbound messages/day

## 7. Create Airtable Record [🔗](#)

- Logs message and reply with timestamp & type `initial`

## 8. Wait Node (5 min) [🔗](#)

## 9. Search Airtable After Wait [🔗](#)

- Searches for any new message after current timestamp
- Formula:

```

1 AND({Customer} = '{{ $json.fields.Customer }}', IS_AFTER({Timestamp}, '{{
2   $json.fields.Timestamp }}'))

```

## 10. IF Node (Check for Reply) [🔗](#)

- `{{ $json.length }}` is equal to 0

## 11. Follow-Up Nodes [🔗](#)

- Follow-up 1: Friendly nudge message
- Follow-up 2: Final reminder message
- Logged as new row in Airtable with `Message Type: followup1` or `followup2`

## Old User Flow [🔗](#)

### 1. Build Chat History (Function Node) [🔗](#)

- Sort previous records by timestamp
- Build chat string: `User: ... \n Bot: ...`
- Extract `LatestUserMessage`

### 2. Prepare Prompt + LLM + Reply + CRM [🔗](#)

- Same as new user flow
- Prompts include entire chat history + new message

## n8n Workflow [🔗](#)



Task 2 - AI W... nt.json  
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## Final Notes [🔗](#)

This workflow ensures a fully automated, humanlike WhatsApp experience with CRM tracking, response logic, and dynamic follow-ups. It's scalable and can be adapted across industries beyond shoe retail.