**Modular & Customizable AI-Powered Email Routing\_**

Text Classifier for eCommerce

**Workflow: Contact Form Text Classifier for eCommerce**

**Purpose:**  
This workflow automates the handling of contact form submissions for eCommerce or customer support teams. When a user submits a contact form, the workflow classifies the message using an AI text classifier into predefined categories such as "Request Quote", "Product info", "General problem", and "Order". Based on the classification, it routes the submission to the appropriate email department and stores the submission details in Google Sheets for record keeping and further analysis.

**Key Components**

1. Form Submission Trigger

* **Node:** *On form submission*
  + **Type:** Form Trigger
  + **Function:**  
    This node initiates the workflow when a user submits the contact form.
  + **Configuration:**
    - **Form Title:** "Contacts"
    - **Form Fields:**
      * **Name:** Required text field.
      * **Email:** Required email field.
      * **Message:** Required textarea.
    - **Response Mode:** Last node output is used to generate a response.
    - **Form Description:** "Basic Contact Form"

2. Text Classification

* **Node:** *Text Classifier*
  + **Type:** AI-powered Text Classifier
  + **Function:**  
    Analyzes the user's message and classifies it into one of the following categories:
    - **Request Quote:** Indicates a request for a price quote.
    - **Product info:** Inquiries for general information about a product.
    - **General problem:** Issues or problems related to a product.
    - **Order:** Inquiries or information regarding an order.
  + **Configuration:**
    - **Input Text:** The message submitted by the user ($json.Message).
    - **Categories:**  
      Predefined categories with their descriptions.
    - **Fallback:** If no category matches, defaults to "other".
    - **System Prompt Template:** Instructs the AI to output a JSON object with the selected category using the provided formatting instructions.
* **Node:** *OpenAI*
  + **Type:** OpenAI Chat Model
  + **Function:**  
    Provides AI processing using the GPT-4o-mini model. This node can be used for further refinement or analysis if necessary.
  + **Configuration:**
    - **Model:** gpt-4o-mini
    - **Options:** No additional options specified.

3. Department-Specific Email Routing

Based on the classification from the Text Classifier, the workflow routes the contact form submission to the appropriate department via email:

* **Nodes for Email Sending:**
  + **Prod. Dep.:**  
    Sends emails related to "Product info" inquiries.
  + **Quote Dep.:**  
    Handles requests for quotes.
  + **Gen. Dep.:**  
    Deals with general inquiries.
  + **Order Dep.:**  
    Processes emails regarding orders.
  + **Other Dep.:**  
    Handles emails that do not match any specific category.

Each email sending node is configured with:

* **Email Content:**  
  Includes the sender's name, email, message, and a placeholder for "tipo prodotto".
* **Email Subject:**  
  Subject lines are prefixed with "[n8n Contacts]" followed by the specific department designation.
* **Recipient and Sender Details:**  
  Configured to use SMTP credentials for email sending.

4. Database Integration

* **Google Sheets Nodes:**
  + **Quote DB, Prod DB, Gen DB, Order DB, Other DB:**
    - **Function:**  
      Each node appends the contact form submission data to a designated Google Sheet. This ensures all submissions are logged for record-keeping and analysis.
    - **Configuration:**
      * **Fields Mapped:**  
        Data such as "TO", "DATA", "NOME", "EMAIL", "CATEGORIA", and "RICHIESTA" are mapped from the form submission and classification output.
      * **Sheet Information:**  
        Uses a specific Google Sheets document and sheet ID (provided as a cached result).

5. Data Flow and Routing

1. **Form Submission:**
   * The workflow starts when a user submits the contact form through the *On form submission* node.
2. **Classification:**
   * The submitted message is sent to the *Text Classifier* node, which outputs the selected category.
   * The classification result is optionally processed by an *OpenAI* node for further refinement.
3. **Email Routing:**
   * Based on the category, the workflow routes the submission to the appropriate department-specific email node (e.g., *Prod. Dep.*, *Quote Dep.*, etc.).
4. **Record Keeping:**
   * The submission details and classification output are appended to corresponding Google Sheets (e.g., *Quote DB*, *Prod DB*, etc.), ensuring that every submission is logged.
5. **Final Output:**
   * The workflow ensures that all contact form submissions are processed, classified, routed via email, and logged in a Google Sheet for future reference.

**Customization and Configuration**

* **Form Customization:**  
  Adjust the form fields, descriptions, and response mode in the *On form submission* node to match your specific use case.
* **Category Definitions:**  
  Modify the categories in the *Text Classifier* node as needed. Ensure that the descriptions match the types of inquiries you expect.
* **Email Templates:**  
  Customize the email templates in the department-specific email nodes to align with your organization's branding and communication style.
* **Database Mapping:**  
  Update the Google Sheets node configurations to match your database schema. Ensure that the mapped fields correspond to the fields in your Google Sheet.
* **SMTP Credentials:**  
  Ensure that the SMTP credentials are correctly configured to send emails from the specified "from" address.

**Troubleshooting & Best Practices**

* **Testing:**
  + Use the manual trigger ("When clicking ‘Test workflow’") to test the workflow thoroughly.
  + Validate that the classification output from the *Text Classifier* node is accurate and that emails are routed correctly.
* **Monitoring:**
  + Monitor the Google Sheets for successful data appending.
  + Check email logs and SMTP responses to ensure emails are being sent without errors.
* **Optimization:**
  + Review and adjust the AI prompt in the *Text Classifier* node if misclassifications occur.
  + Fine-tune the email templates and subject lines based on user feedback.
* **Documentation:**
  + Keep this documentation updated as you modify the workflow.
  + Clearly document any changes to the category definitions or email routing logic for future reference.