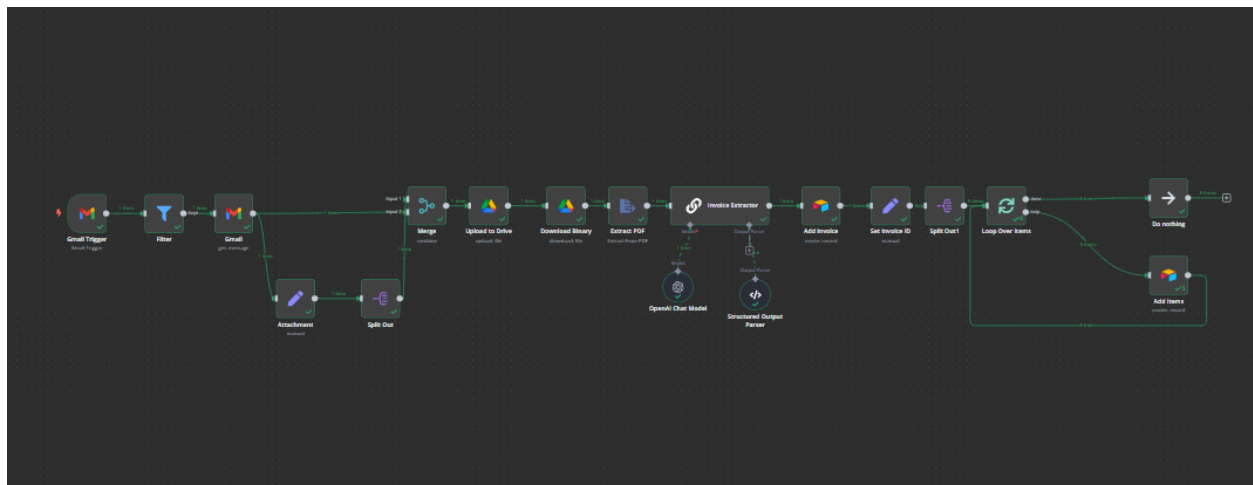


# Invoice Extractor Agent

This workflow automates the process of extracting and managing **invoice data from emails**. It is designed to:

1. **Monitor Gmail for incoming invoices (PDF attachments).**
2. **Extract relevant details from invoices using AI.**
3. **Save structured invoice data to Airtable for easy access and tracking.**
4. **Upload invoice PDFs to Google Drive for centralized storage.**

📌 **Copy Airtable tables using this [link](#).**



## How It Works

### 1. Email Monitoring & Attachment Processing

- **Trigger:** The workflow starts with the **Gmail Trigger** ( **Gmail Trigger** node), which checks for new emails with attachments.
- **Filter Emails:** The **Filter** node ensures only emails containing invoices (PDFs) are processed.
- **Download Attachments:** The **Gmail node** retrieves the email content and downloads attachments.

## 2. Invoice Processing & Data Extraction

- **Split Attachments:** The "**Split Out**" node processes multiple attachments individually.
- **Upload to Google Drive:** Invoices are stored in a dedicated **Google Drive folder** for easy access ( **Upload to Drive** node).
- **Extract PDF Content:** The "**Download Binary**" and "**Extract PDF**" nodes extract text from the invoice files.
- **AI-Powered Data Extraction:**
  - The extracted text is sent to the **OpenAI Chat Model**, which processes the content.
  - The **Invoice Extractor node** structures key details from the invoice, including:
    - **Invoice Name**
    - **Company Name**
    - **Total Invoice Amount**
    - **Breakdown of Items** (description and amount per item).
  - The **Structured Output Parser** ensures that the extracted data follows a predefined JSON format.

## 3. Data Storage & Processing

- **Save Invoice Data in Airtable:**
  - The "**Add Invoice**" node logs invoice details in an **Airtable database** for tracking.
  - The "**Set Invoice ID**" node ensures a unique ID is assigned to each invoice.
- **Process Line Items:**
  - The "**Split Out1**" node extracts individual line items from invoices.
  - The "**Loop Over Items**" node iterates through each item to ensure proper entry into Airtable.

- The **"Add Items" node** saves individual line items, mapping them to their respective invoices.

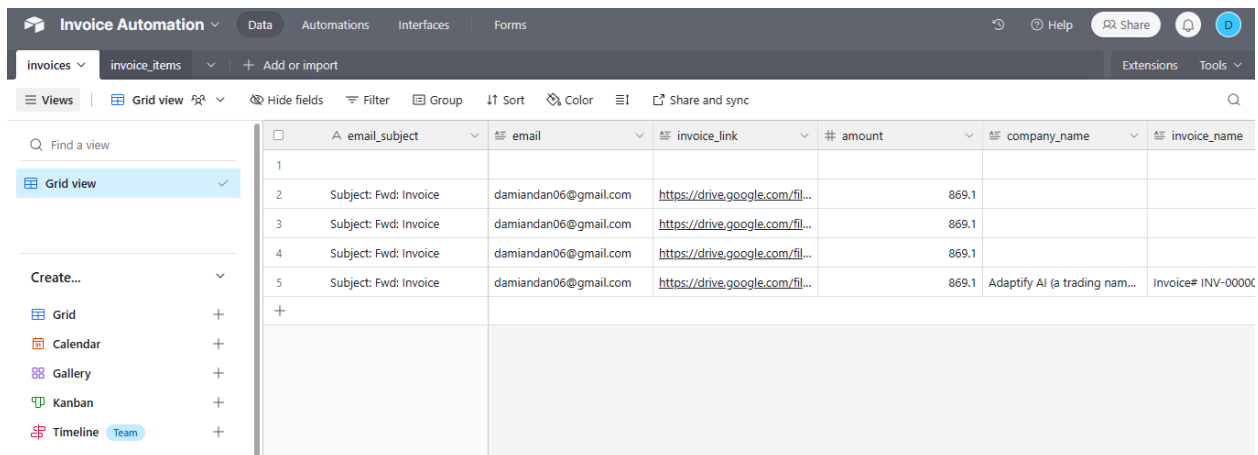
# Setup Instructions

## Prerequisites

1. **Gmail Account** – Connect a Gmail account to retrieve invoices via email.
2. **Google Drive Account** – Set up a dedicated folder to store invoice PDFs.
3. **OpenAI API Key** – Required for AI-based invoice data extraction.
4. **Airtable Account** – Create an **Airtable base** to store extracted invoice details.

 **Copy Airtable tables using this [link](#).**

Or, if you prefer, **set them up manually** - detailed instructions are provided at the end.



	email_subject	email	invoice_link	amount	company_name	invoice_name
1						
2	Subject: Fwd: Invoice	damiandan06@gmail.com	<a href="https://drive.google.com/fil...">https://drive.google.com/fil...</a>	869.1		
3	Subject: Fwd: Invoice	damiandan06@gmail.com	<a href="https://drive.google.com/fil...">https://drive.google.com/fil...</a>	869.1		
4	Subject: Fwd: Invoice	damiandan06@gmail.com	<a href="https://drive.google.com/fil...">https://drive.google.com/fil...</a>	869.1		
5	Subject: Fwd: Invoice	damiandan06@gmail.com	<a href="https://drive.google.com/fil...">https://drive.google.com/fil...</a>	869.1	Adaptify AI (a trading nam...	Invoice# INV-0000

## Configuration Steps

### 1. Connect Gmail for Invoice Retrieval

- In the **"Gmail Trigger"** node:
  - Authenticate with your **Gmail account**.
  - Set filters to check for **emails with invoice attachments**.

## 2. Set Up Google Drive for Storage

- In the "**Upload to Drive**" node:
  - Authenticate with your **Google Drive account**.
  - Choose a **folder** where invoices will be stored.

## 3. Enable AI-Powered Extraction

- In the "**OpenAI Chat Model**" node:
  - Add your **OpenAI API Key**.
  - Ensure the **prompt** correctly extracts invoice details.

## 4. Configure Airtable for Invoice Storage

- In the "**Add Invoice**" and "**Add Items**" nodes:
  - Link your **Airtable API key**.
  - Choose the correct **Airtable base and tables** for storing invoice details and line items.

## 5. Test the Workflow

- Send an email to the **connected Gmail account** with a **PDF invoice**.
- Check:
  1. Invoice PDF is uploaded to Google Drive.
  2. Invoice data is extracted and saved in Airtable.
  3. Each line item is recorded properly.

## Use Case

1. **Fully Automated Invoice Processing** – Saves time by handling invoices end-to-end.
2. **AI-Powered Extraction** – Accurately extracts invoice details without manual input.
3. **Seamless Google Drive Storage** – Invoices are stored in a central location.

4. **Airtable Integration for Tracking** – Structured invoice data for easy reporting and auditing.

## Setting Up Airtable for the Invoice Extractor Agent

To store extracted invoice data, **copy both tables (Invoices and Invoice\_Items) using this [link](#).**

Or, manually create an Airtable base with the necessary fields by following these steps:

### 1. Create a New Airtable Base

1. Go to [Airtable](#) and log in.
2. Click on "**Add a base**" → Select "**Start from scratch.**"
3. Name the base "**Invoices**" or anything relevant.

### 2. Set Up Tables and Fields

1. In the new base, rename the first table to "**invoices**".
2. Add the following fields:
  - **email\_subject** (Single line text) – The subject of the email containing the invoice.
  - **email** (Single line text) – The sender's email address.
  - **invoice\_link** (Long text) – The link to the stored invoice file in Google Drive.
  - **amount** (number) – The total invoice amount.
  - **company\_name** (Long text) – The name of the company that issued the invoice.
  - **invoice\_name** (Long text) – The identifier or title of the invoice.

	email_subject	email	invoice_link	amount	company_name	invoice_name
1						
2	Subject: Fwd: Invoice	damiandan06@gmail.com	https://drive.google.com/fil...	869.1		
3	Subject: Fwd: Invoice	damiandan06@gmail.com	https://drive.google.com/fil...	869.1		
4	Subject: Fwd: Invoice	damiandan06@gmail.com	https://drive.google.com/fil...	869.1		
5	Subject: Fwd: Invoice	damiandan06@gmail.com	https://drive.google.com/fil...	869.1	Adaptify AI (a trading nam...	Invoice# INV-00001
6	Subject: Fwd: Invoice	damiandan06@gmail.com	https://drive.google.com/fil...	869.1	Adaptify AI (a trading nam...	INV-000001

3. Create a second table named "invoice\_items" with:

- **item** (Single text)
- **amount** (number)
- **invoice** (Long text)

	item	amount	invoice
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

### 3. Get Airtable API Key & Base ID

1. Click on your profile picture in Airtable → Select "Developer Hub" → Copy your **API Key**.
2. Open your base and check the URL:
  - The **Base ID** starts with "app..." (e.g., `app1234567890`).

### 4. Connect Airtable to n8n

1. In **n8n**, open the "**Add Invoice**" and "**Add Items**" nodes.
2. Enter your **Airtable API Key** and **Base ID**.
3. Select the correct **table names** for storing invoice details and items.