

Gemini Pro - LLM Multi Language Invoice Extractor

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Introduction

This application utilizes Streamlit and Google's Generative AI (Gemini Pro) to facilitate the extraction and analysis of multi-language invoices, marksheets, prescriptions, charts, notes, and payment receipts. It provides a streamlined interface for users to input queries and upload images, generating detailed responses based on the input data.

Key features include:

- Integration with Google's Generative AI for processing textual and visual inputs.
 - Streamlit-based web application framework for interactive user experience.
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Setup

Requirements

Make sure you have the following installed:

1. **Langchain**: Used for tasks related to language processing, potentially including natural language understanding or generation tasks.
2. **streamlit**: A framework for building interactive web applications with Python.
3. **google-generativeai**: Provides access to Google's Generative AI models for generating content based on prompts.
4. **python-dotenv**: Loads environment variables from a .env file into os.environ, making it easy to manage configurations.
5. **pathlib**: Provides an object-oriented interface for filesystem paths, making it simpler to work with file and directory paths.
6. **PyPDF2**: Enables reading, merging, splitting, and extracting text or data from PDF files programmatically.
7. **Chromadb**: Likely used for interacting with Chrome or Chromium-based browser databases or profiles programmatically.

Installation

1. First we need to create a environment specific to the project folder and it can be done in this way
-> **conda create -p venv python==3.10 -y**
2. Then we need to activate the environment before writing the code
-> **conda activate venv/**
3. After this we need to load all the required libraries into our project this can be done individually through command prompt by running it as administrator using the pip command or we can follow this simple way
-> **pip install -r requirements.txt**

Input

1. **Text Input:** Type your query in the input field provided and press Enter.
2. **Image Upload:** Click "Browse Files" to select an image (JPEG, JPG, or PNG).

Output

1. The application will display an uploaded image and a detailed response based on the query and image content after the user press the 'Get Response' button.
2. Ensure your Google API key (GOOGLE_API_KEY) is correctly configured in the .env file. Do not expose this key publicly.
3. The specialty of the project is that it can be able to detect and give the responses based on the input image which can be of any language and the output is printed in the language it detects.

Website Link Accessible: <https://gemini-llm-invoice-extractor-8xgmjpcgyockrv8uaqhxo2.streamlit.app/>

Gemini LLM Multi-Language Invoice Extractor

Type your Query & Press Enter :

give me the account summary in detail

Click Browse Files to choose an image...

 Drag and drop file here
Limit 200MB per file • JPG, JPEG, PNG

Browse files

 invoice_pic.png 231.8KB

×

[Your Company Name]

[Street Address, City, State, ZIP Code]

[Phone]

[Email]

[Name]

[Job Position]

[Street Address, City, State, ZIP Code]

Tax ID:

123456789

Invoice Date

XX.XX.XX

Invoice No.

1227

Billing through:

XX.XX.XX

Professional Services

Date	Employee	Description of work	Hours	Rate	Amount
xx.xx.xx	Name Surname	Text	0.75	\$105.00	\$78.75

Professional Services

Date	Employee	Description of work	Hours	Rate	Amount
xx.xx.xx	Name Surname	Text	0.75	\$105.00	\$78.75
xx.xx.xx	Name Surname	Text	0.75	\$195.00	\$146.25
xx.xx.xx	Name Surname	Text	2.00	\$275.00	\$550.00
xx.xx.xx	Name Surname	Text	2.00	\$195.00	\$390.00
xx.xx.xx	Name Surname	Text	7.00	\$150.00	\$1,050.00
Total Services:			12.50		\$2,215.00

Expenses

Date	Employee	Description of work	Amount
xx.xx.xx	Name Surname	Text	\$200.00
Total Expenses:			\$200

Subtotal: \$2,221.00 Sales Tax: \$10.46 Amount due this invoice: \$2,231.96

Account Summary

SERVICE BTD	EXPENSES BTD	LAST INV NO.	LAST INV DATE	LAST INV AMT	LAST PAY AMT	PREV UNPAID AMT
\$113,856.50	\$16,665.03	1212	XX.XX.XX	\$9,769.53	\$13,581.25	\$4,767.28

Total Amount due including this invoice: \$6,999.24

Uploaded Image

Total Amount due including this invoice: \$6,999.24

Uploaded Image

Get Response

Extracted Details:

The account summary is as follows:

- Service BTD: \$113,856.50
- Expenses: \$16,665.03
- Last Inv No: 1212
- Last Inv Date: 31/12/2022
- Last Pay Date: 15/01/2023
- Unpaid Amt: \$4,966.24

The total amount due on this invoice is \$6,999.24.

Thank you.