



Loanlynk AI

Video-Based Loan Assistance

STANDARD CHARTERED HACKATHON



Retrieval-Augmented Generation (RAG) Model

- Improves AI answers by pulling relevant financial data from outside sources.
 - Ensures accurate, up-to-date loan guidance by integrating real-time data into conversations.
- Provides personalized recommendations based on customer queries and financial history.

2. Retriever Flow

This flow answers your questions with contextual data retrieved from your vector database.

Open the Playground and ask,

What is this document about?

README

Load your data into a vector database with the **Load Data** flow, and then use your data as chat context with the **Retriever** flow.

- Add your OpenAI API key as a global variable to easily add it to all of the OpenAI components in this flow.

Quick start

Chat Input

Get chat inputs from the Playground.

Text

What is the document is about?

Message

Add your OpenAI API key here

OpenAI Embeddings

Generate embeddings using OpenAI models.

Model

text-embedding-3-small

OpenAI API Key

Embeddings

Astra DB

Ingest and search documents in Astra DB

Astra DB Application Token

ASTRA_DB_APPLICATION_TOKEN

Database

hack

Collection

rag_2

Embedding Model

Ingest Data

Search Query

Receiving Input

Search Results

DataFrame

Parse Data

Convert Data into plain text following a specified template.

Template

{text}

Data

Message

Data List

Prompt

Create a prompt template with dynamic variables.

Template

{context} --- Given the context above

context

Type something...

question

Type something...

Prompt Message

Add your OpenAI API key here

OpenAI

Generates text using OpenAI LLMs.

Input

Receiving Input

System Message

Type something...

Stream

Model Name

gpt-4o-mini

OpenAI API Key

Temperature

0.10

Precise

Creative

Message

Language Model

Chat Output

Display a chat message in the Playground.

Text

Receiving Input

Message

1. Load Data Flow

Run this first! Load data from a local file and embed it into the vector database.

Select a Database and a Collection, or create new ones.

Click **Run** component on the Astra DB component to load your data.

- If you're using OSS Langflow, add your Astra DB Application Token to the .env file.

File

Load a file to be used in your project.

Path

AI-Powered RAG Model for a V...

Data

Split Text

Split text into chunks based on specified criteria.

Input Documents

Chunk Overlap

200

Chunk Size

1000

Separator

Chunks

DataFrame

OpenAI Embeddings

Generate embeddings using OpenAI models.

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hack

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rag_2

Embedding Model

Ingest Data

Search Query

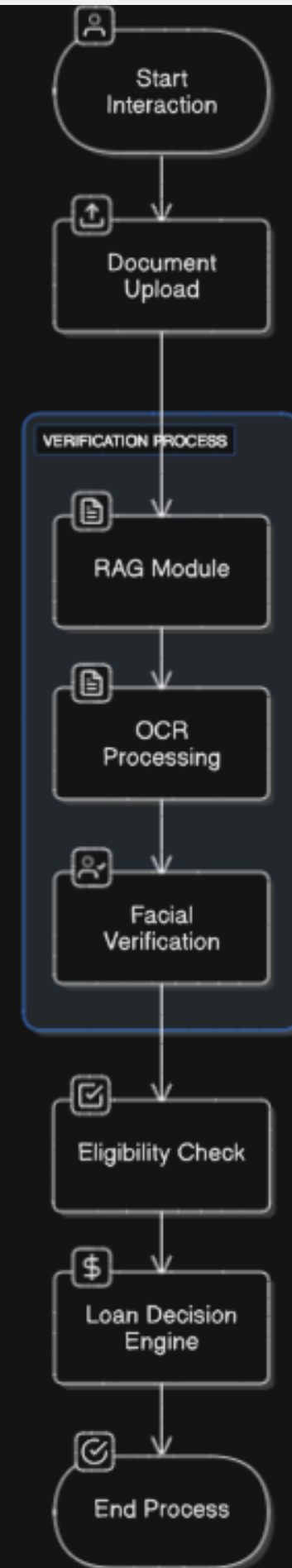
Type something...

Search Results

DataFrame

Aadhaar Model – Document Parsing & Verification

- ◆ Scans and captures basic tax-related information from PAN cards.
- ◆ Cross-verifies PAN details for fraud detection and compliance checks.
- ◆ Facilitates safe financial profiling for proper loan eligibility determination.



Payslip Model – Income & Employment Validation

- ◆ Pulls out salary, deductions, and employer information with OCR-based text extraction.
- ◆ Evaluates financial stability for loan qualification.
- ◆ Automates validation, minimizing human interaction and approval time.

Payslip
Zoonodle Inc
21023 Pearson Point Road
Gateway Avenue

Date of Joining : 2018-06-23

Pay Period : August 2021

Worked Days : 26

Employee name : Sally Harley

Designation : Marketing Executive

Department : Marketing

Earnings	Amount
Basic	10000
Incentive Pay	1000
House Rent Allowance	400
Meal Allowance	200
Total Earnings	11600

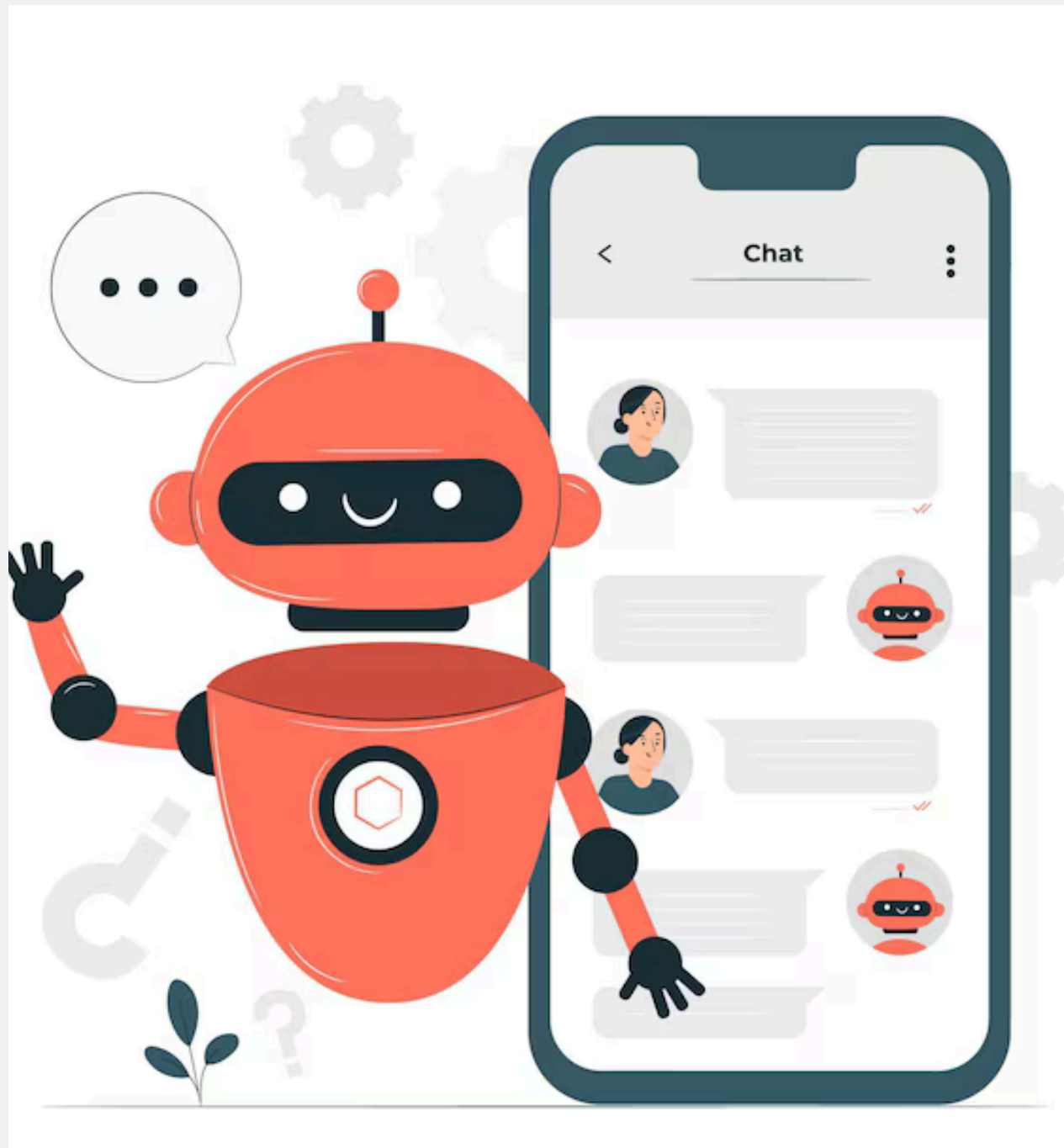
Deductions	Amount
Provident Fund	1200
Profesional Tax	500
Loan	400
Total Deductions	2100
Net Pay	9500

9500
Nine Thousand Five Hundred

Employer Signature

Employee Signature

This is system generated payslip



End-to-End Loan Processing Workflow

- ◆ Step 1: Customer interacts via video-based AI assistant.
- ◆ Step 2: Documents (Aadhaar, PAN, Payslip) are uploaded and verified.
- ◆ Step 3: RAG model retrieves and enhances responses for user queries.
- ◆ Step 4: Rule-based system evaluates loan eligibility and provides real-time feedback.

Conclusion & Future Enhancements

- ◆ Delivers a digital, AI-powered banking experience with secure document verification.
- ◆ Increases customer confidence, simplifies loan processing, and shortens approval time.
 - ◆ Future Scope: Advanced NLP for conversational AI, multi-language support, and fraud detection.

https://github.com/Sidtheboss/Loanlynk_AI

Thank you!

Kavin ,Rijesh ,Krishna,Siddharth,Surya,Gladdin

