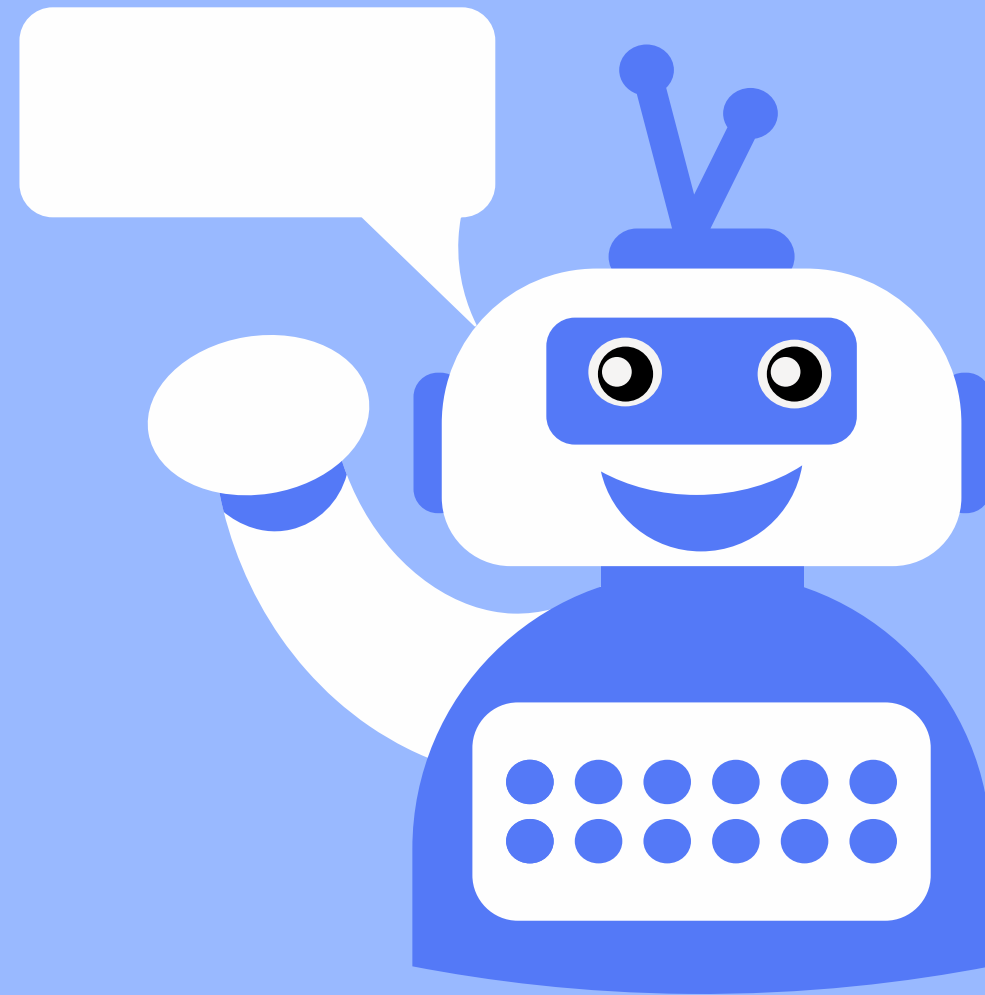




PDF-KNOWS

A Chatbot for Comprehensive
Understanding of Complex
Documents

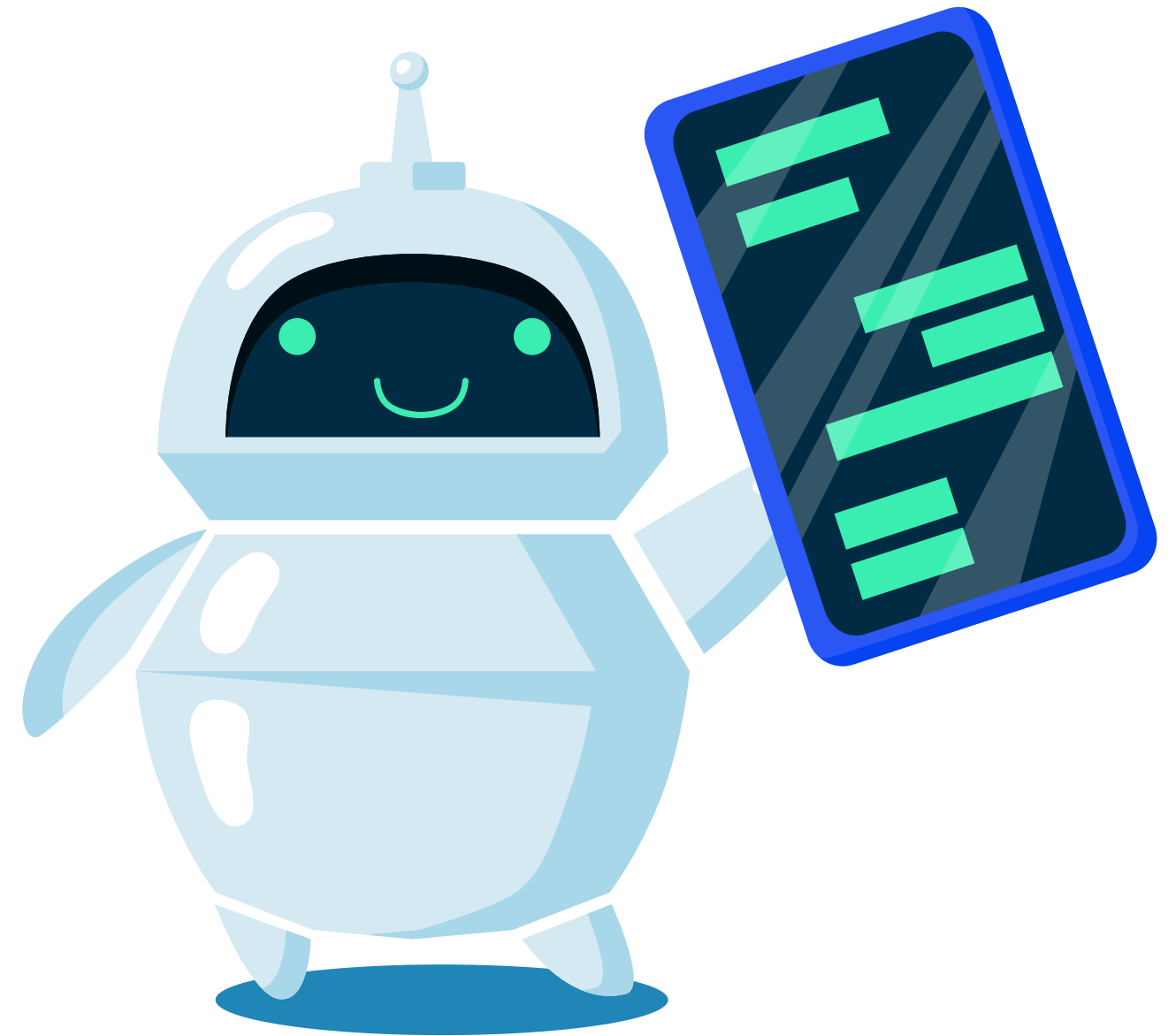
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ABOUT THE PROJECT

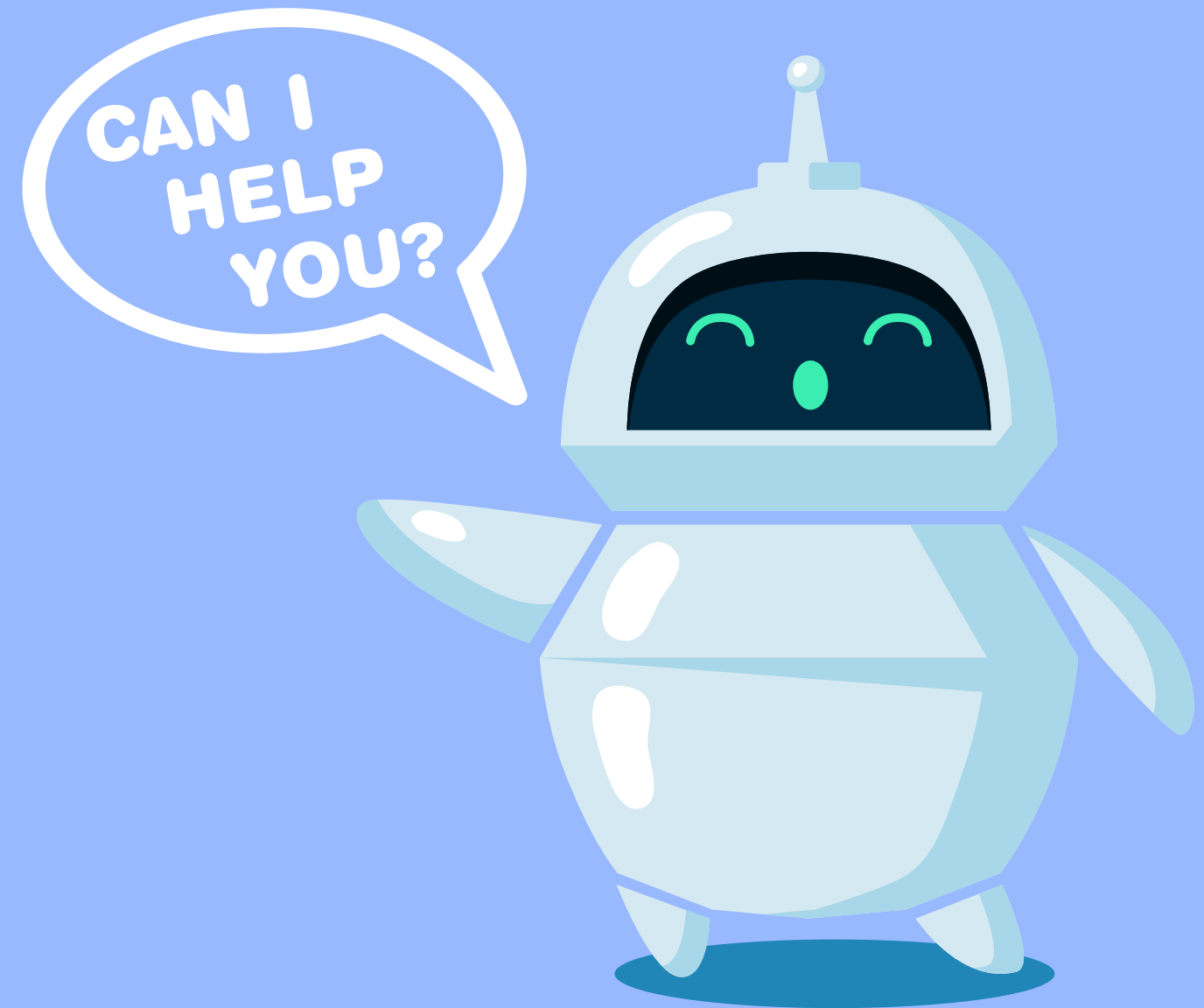
The focus of our college project lies in developing an advanced document navigation system aimed at simplifying the process of traversing intricate documents. Leveraging cutting-edge Artificial Intelligence and Machine Learning technologies, we aim to revolutionize the way individuals interact with and extract information from complex textual content.



WHY PDF-KNOWS

In today's information-driven world, individuals and businesses frequently encounter the challenge of efficiently extracting key insights and information from lengthy documents such as PDFs, Word documents, and PowerPoint presentations. The process of manually sifting through extensive content to identify essential details can be time-consuming, labor-intensive, and error-prone.

To address this issue, we propose the development of an AI-powered document summarization and chatbot integration system.



DATASET DESCRIPTION

Split

train (9.6k rows) ▼

train (9.6k rows)

validation (1.48k rows)

test (1.43k rows)

Size of downloaded dataset files:
379 MB

Size of the auto-converted Parquet files:
157 MB

Number of rows:
12,515

"kmfoda/book sum"

dataset is
specifically designed
for training and
evaluating models
in the domain of
book summarization

Hugging Face Model Hub

The dataset likely
contains pairs of
books and their
corresponding
summaries..

LM = Language Model

STRUCTURE OF CHATBOT

User Interface

Chatbot
Frontend

Natural
Language
Processing (NLP)
Module

PDF Parsing
Module

Document
Preprocessing

Knowledge
Graph or
Indexing System

Intent Matching
and Query
Resolution

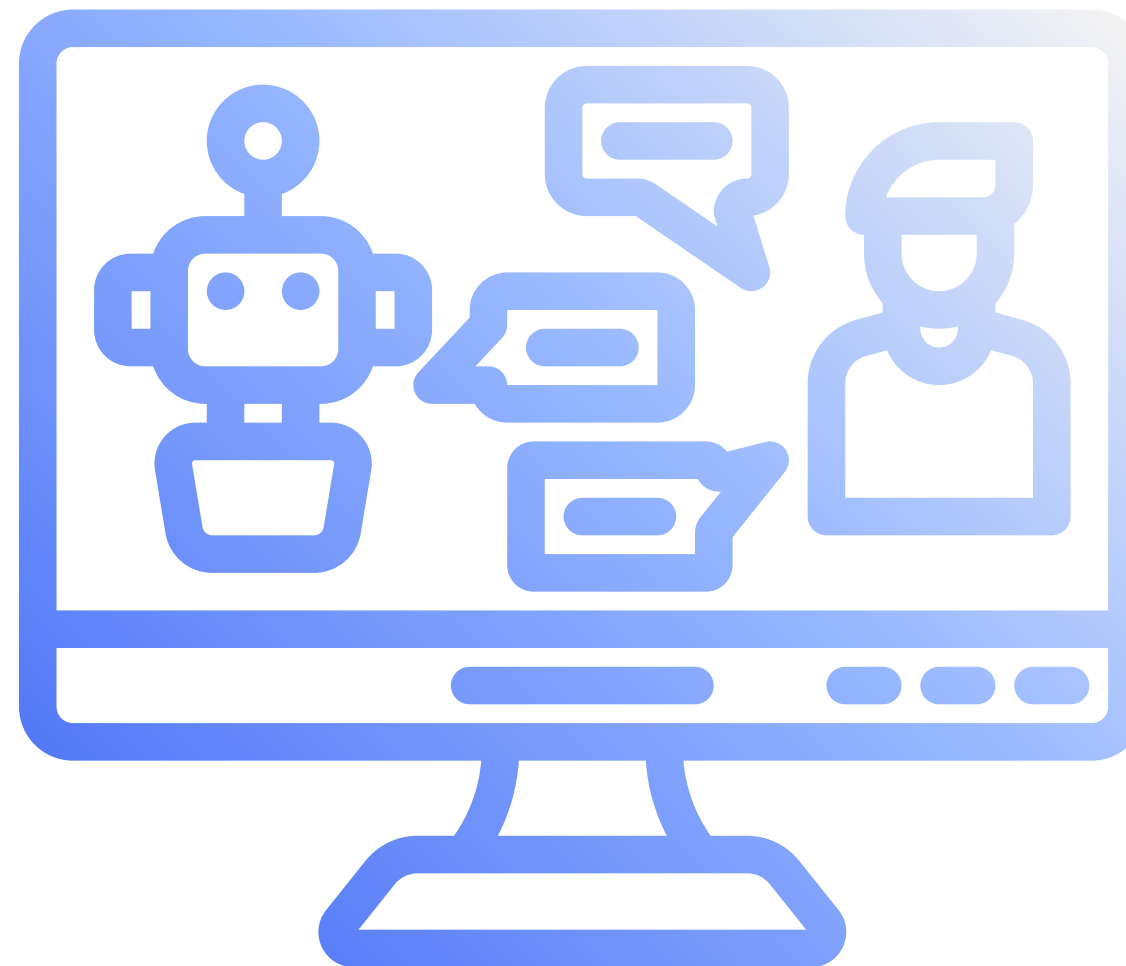
Response
Generation

USECASES OF CHATBOT

Legal Document
Analysis

Financial
Document
Understanding

Insurance Policy
Understanding



Academic Research
Assistance

Technical
Document Support

Education and E-
Learning

Technologies Tried Before

- Machine Learning Frameworks
- Chatbot Frameworks
- Cloud Services for Scalability
- Knowledge Graphs

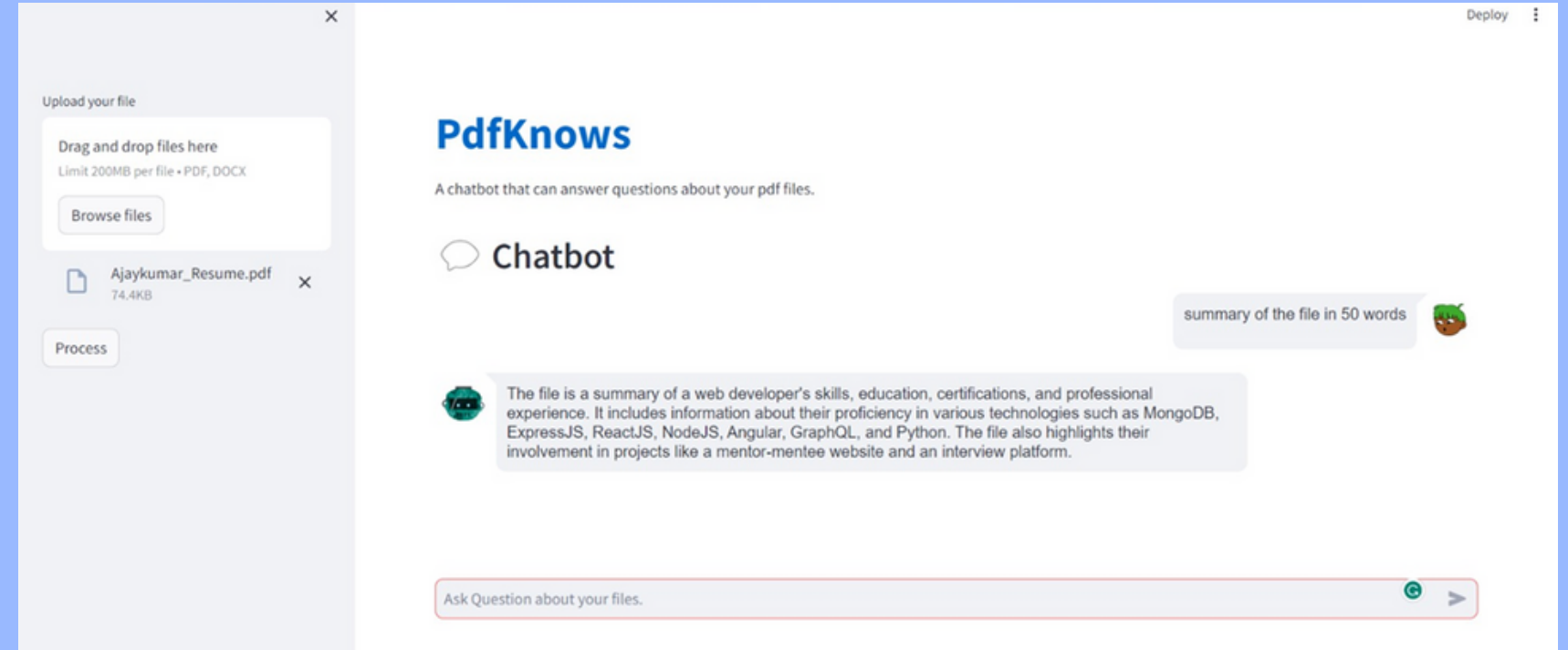
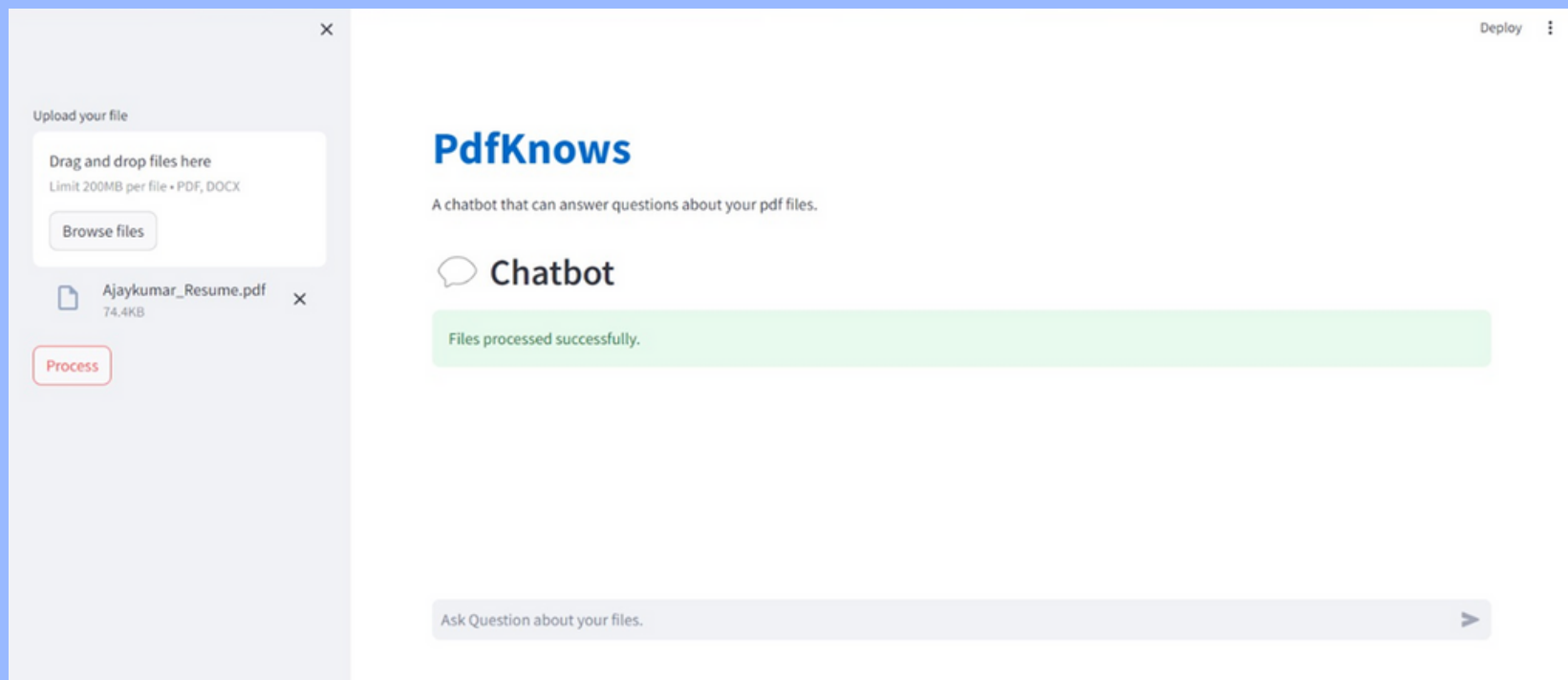
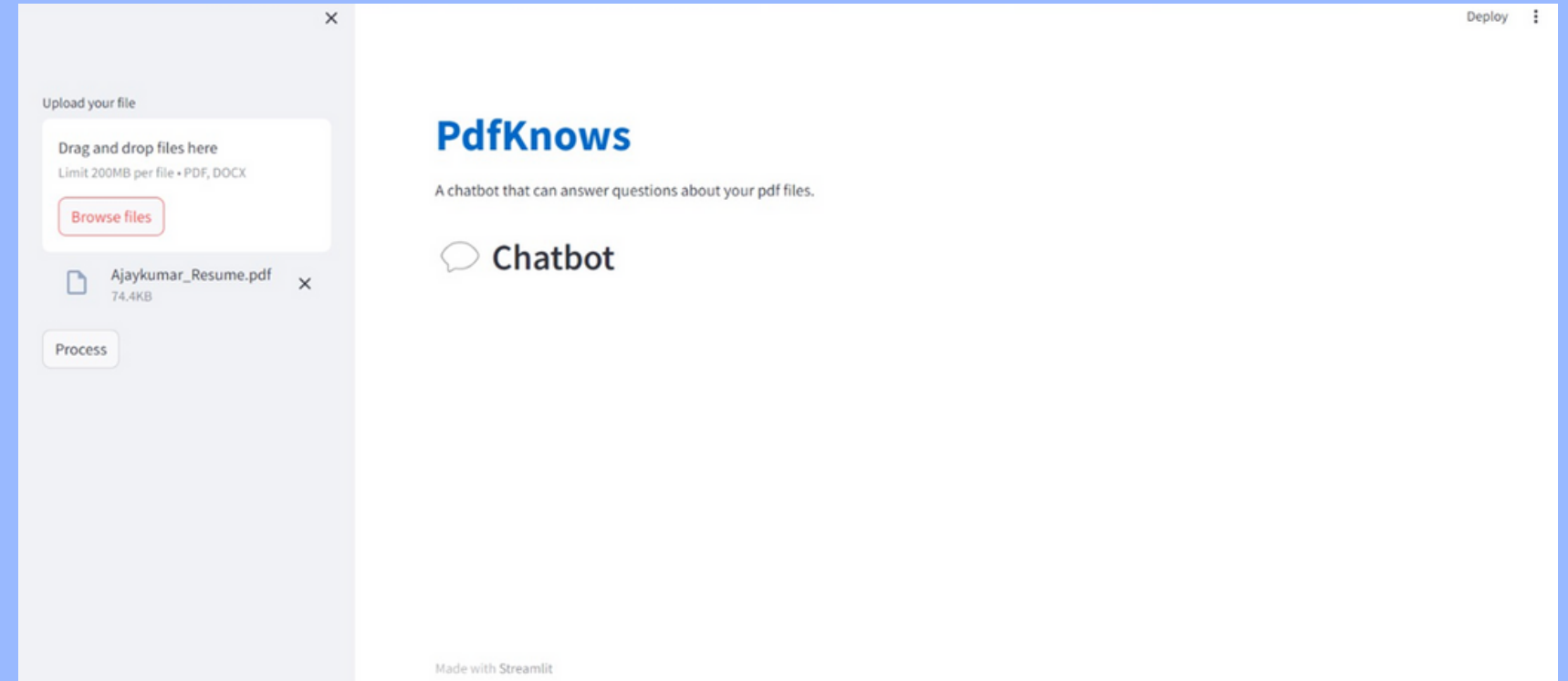
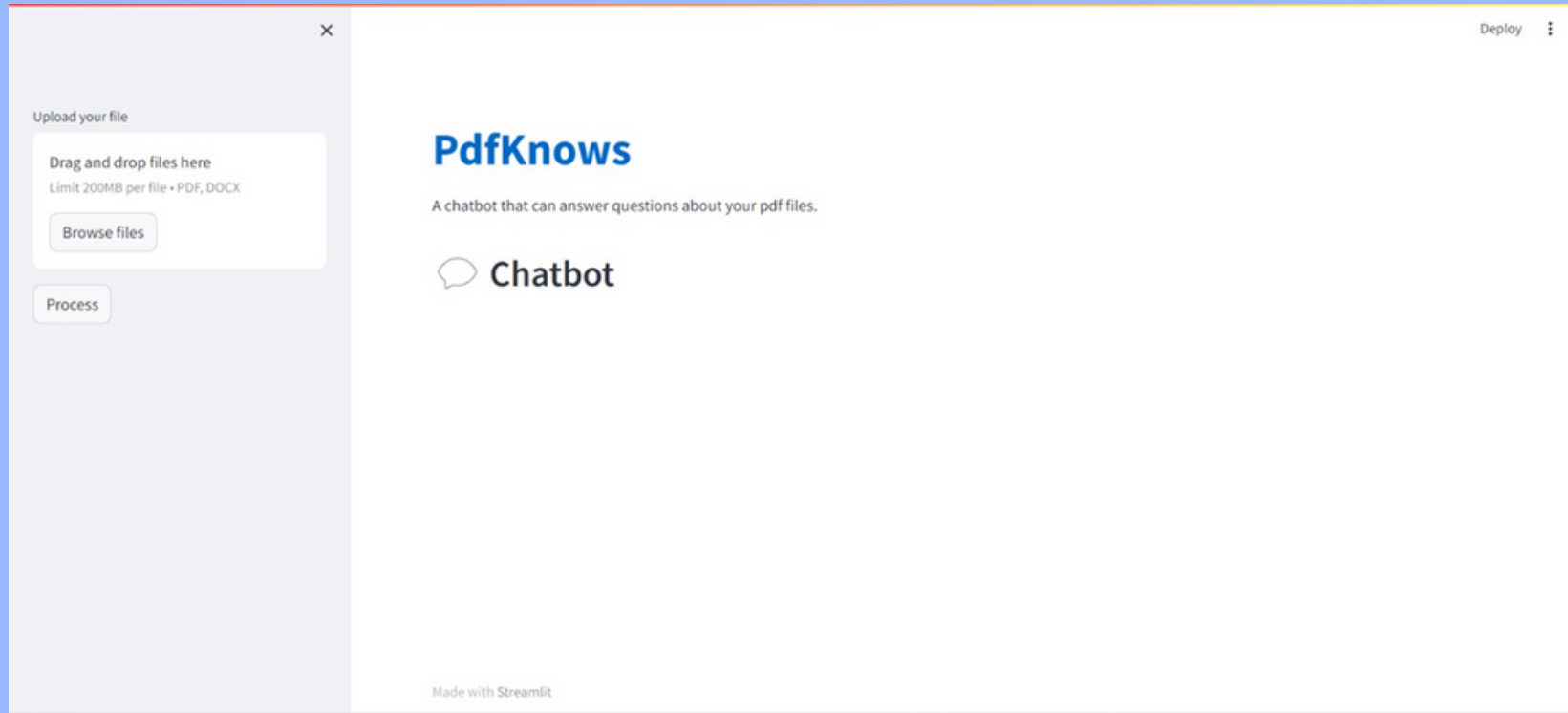


Unique Value Proposition

The proposed project addresses the challenge of extracting vital information from lengthy documents. It combines document summarization and chatbot integration, offering a comprehensive solution. Document summarization condenses content for easier consumption, while the chatbot interface facilitates interactive communication. This integrated system aims to enhance efficiency and accuracy in information retrieval from documents like PDFs and presentations.



RESULTS



CONCLUSION

The PDF-KNOWS chatbot is a significant breakthrough in extracting vital information from intricate documents. By merging advanced natural language processing with PDF parsing techniques, it enables conversational interaction for streamlined access to critical insights. Integration of technologies like Langchain and OpenAI API enhances the chatbot's language understanding, resulting in a robust system for precise document navigation. This innovation marks a substantial leap forward in improving efficiency and productivity in document management.



THANK YOU!