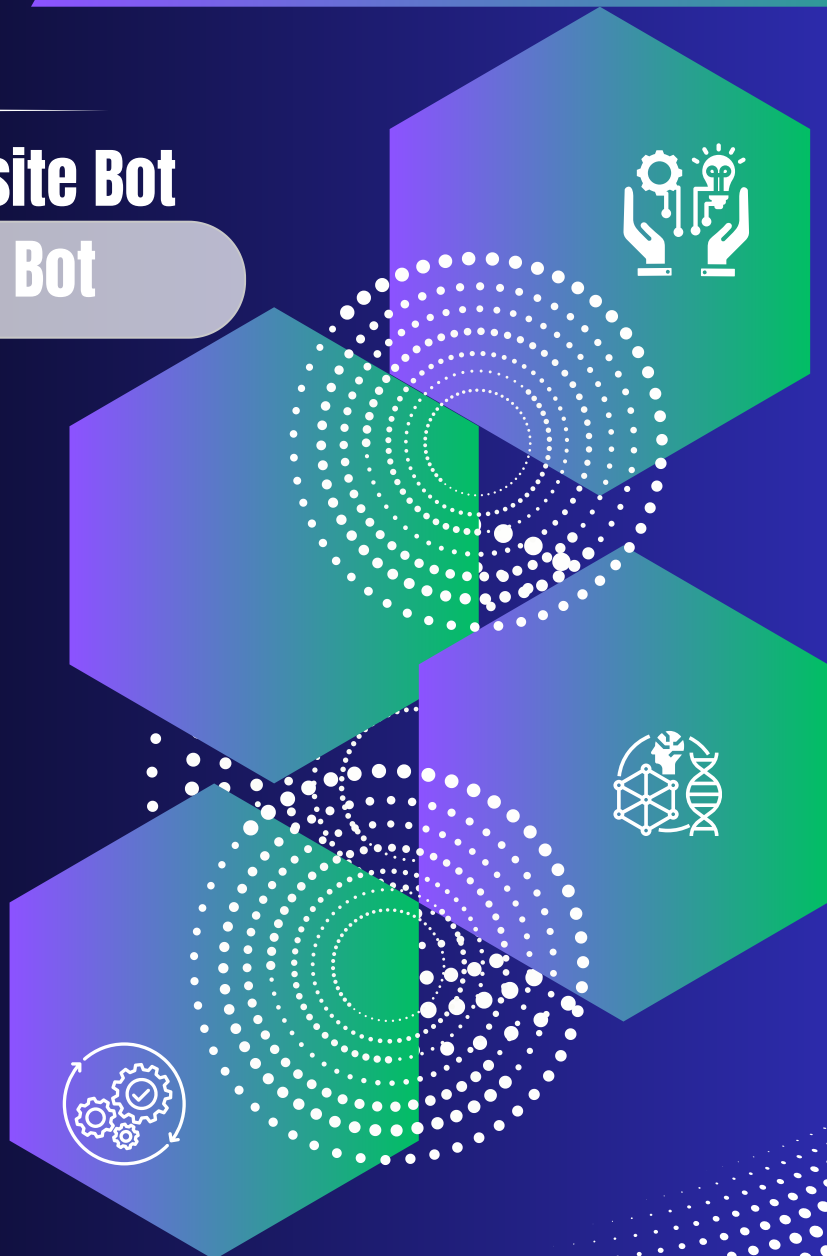# CASE

STUDY

CASE
STUDY

LLM-based Website Bot
And Document Bot

Business Needs/Background

- Develop a website chatbot with natural language processing capabilities to provide real-time assistance to users.

- Enable the chatbot to understand and respond to user queries.

- Implement seamless integration of the chatbot into the website's interface, ensuring a smooth user experience across different devices and browsers.

- An Application where we can upload the Documents and interact with their contents through a chat interface.

- Adapting to different documents for natural conversation flow.

- Personalizing interactions with different type of documents.

- This application will be a valuable tool for research, data analysis and knowledge discovery.
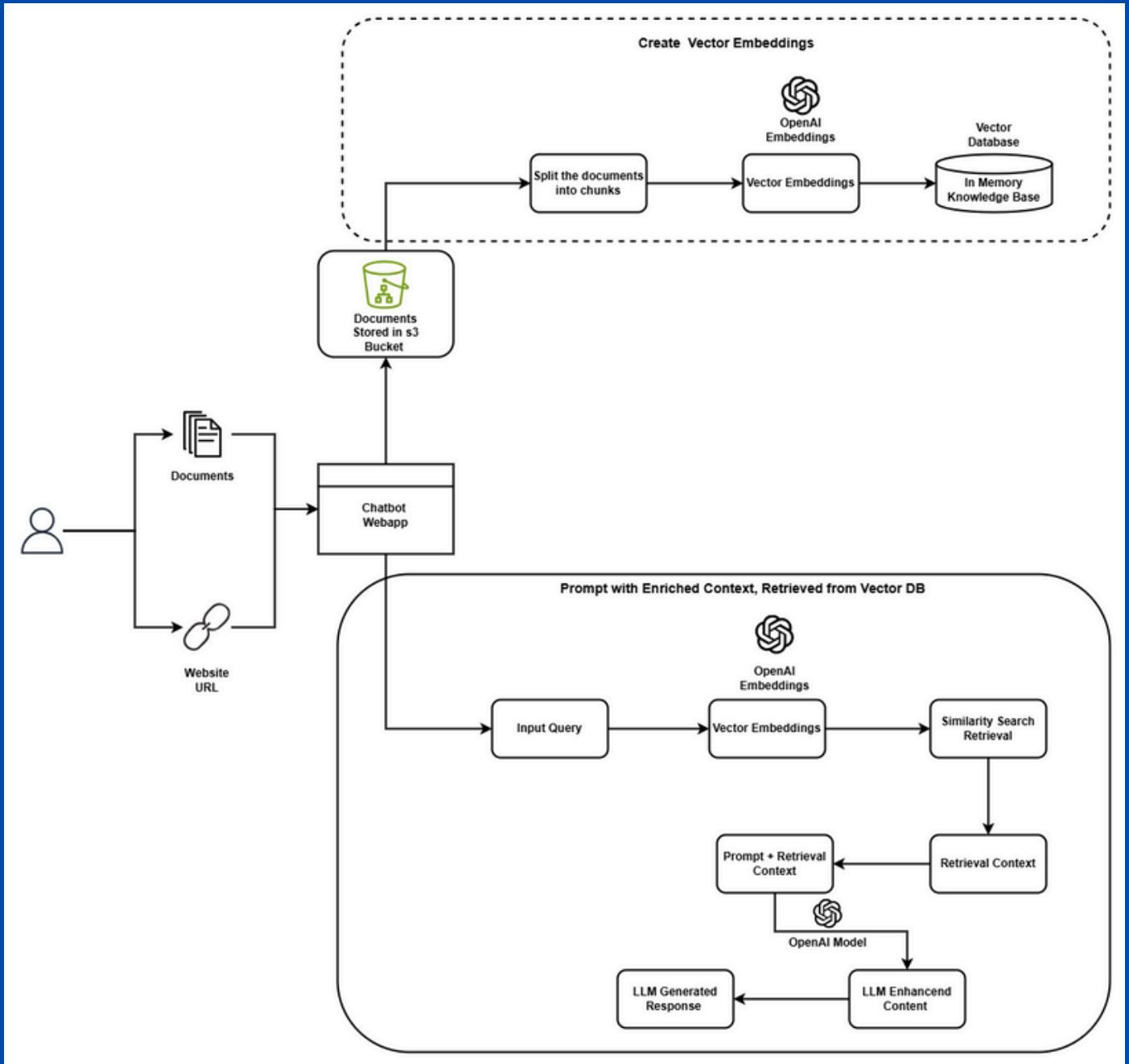
Tools & Technologies

- **Python**

- **Model: gpt 3.5 turbo**

- **Application: React**

- **Data Ingestion: Langchain**

- **Vector Db: PGVector**

Our Solution LLM-based
Website Bot

- Utilized web scraping techniques to extract real-time data from a targeted website, ensuring the most current information.

- The extracted text is then transformed into numerical vectors through embeddings, optimizing it for efficient storage and quick retrieval.

- Integrated gpt-3.5 turbo model with Langchain, leveraging its powerful language generation capabilities to enhance user interaction.

- Incorporated robust guardrails, to handle unexpected user queries or situations, ensuring the system remains reliable and provides consistent, accurate responses.

Our Solution Document Bot

- **Data:** Data can be in formats such as PDF, Docx, Xlsx or PPT.

- **Text Extraction:** Text is extracted from Documents with various libraries and OCR.

- **API Integration:** ChatGPT(GPT-3.5) with Langchain involves combining the powerful language generation capabilities of the language model .

- **Natural Language Interaction:** Users can communicate naturally about the documents and ask questions.

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Value Delivered to the Customer

Reduction in overall operational infrastructure and maintenance cost by 40%.	Improved application scalability.
Increased availability of the application by 70% with multi-region deployment.	Robust disaster recovery strategy delivered for a dynamic workload.
Enhanced security.	Improved and efficient monitoring, logging and alerting system for the entire application.

For more information, write to us at hello@xfactr.ai

About XFactr.AI

At XFactr™.AI, we're revolutionizing industries with our bold 3D approach to digital transformation:

1 **Digital Full-stack Development**
2 **Data Science & AI ML**
3 **DevOps & Cloud**

Data is our backbone, and AI is our superpower. We blend traditional digital technologies with cutting-edge AI to create future-ready solutions that drive real impact. With a proven track record of building and exiting successful companies, our leadership brings decades of expertise in digital tech and AI to inspire trust, innovation, and results.

Whether empowering global enterprises or fueling disruptive startups, we turn bold ideas into intelligent products. Join us—we're on track to become the next unicorn by 2040! 🚀 People might call us mad, but we're focused, ambitious, and determined to make it happen.

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