HUMANAIZE HACKATHON
FINTECH EDITION

Team Name: Pixel Pulse

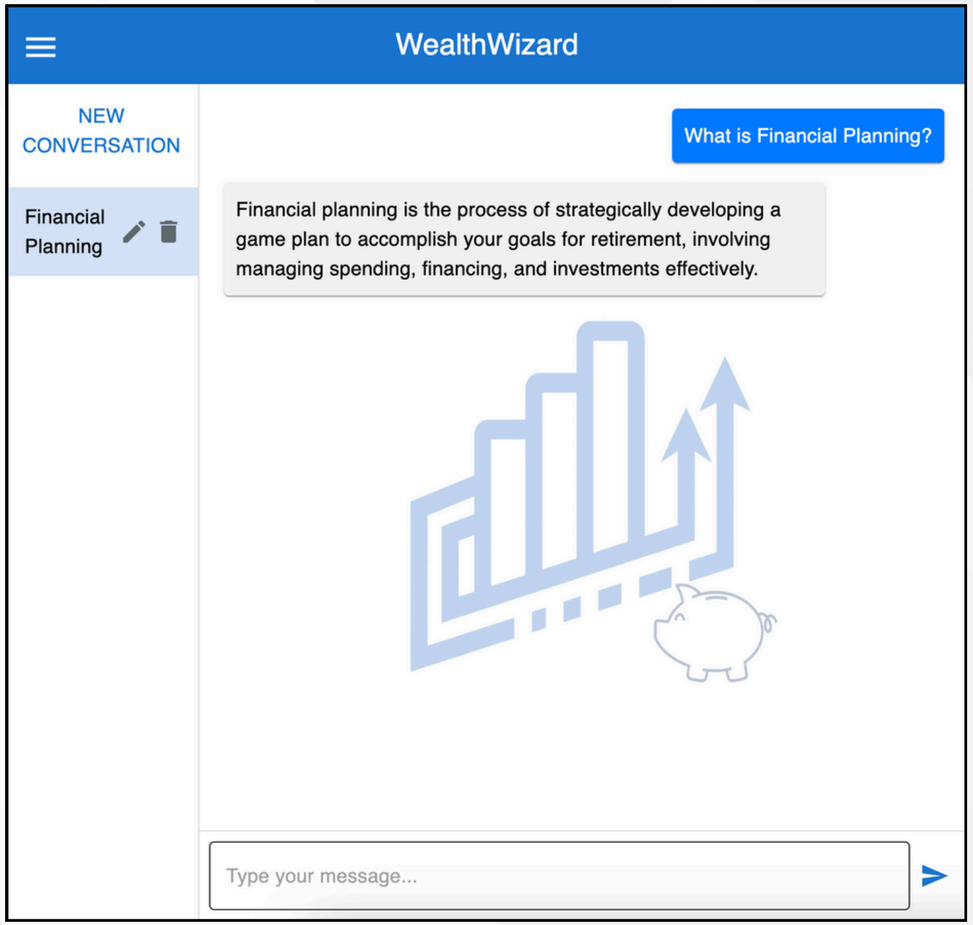
Problem Statement: Personalized Financial Planning

Tean Members:

- Gourav Midya
- Prathamesh Naik
- Harshal Sankanna
- Hariom Sahu

WEALTHWIZARD: A FINANCIAL CHATBOT

WealthWizard, a cutting-edge financial chatbot developed by our team for the **HumanAIze Hackathon** by **Hack2skill**, leverages advanced AI to deliver precise, **personalized financial advice** based on **realtime trends and data**. WealthWizard offers comprehensive financial guidance on **budgeting, savings, investments, and planning**, leveraging AI for tailored and actionable advice. Built with **FastAPI and React,** it ensures fast, reliable interactions supported by **MongoDB and Chroma** for scalable data management. Integrating **Langchain, HuggingFace Embeddings,** and **ChatOllama (LLM)**, WealthWizard continuously improves through user feedback, showcasing AI's potential in transforming financial advisory.



PROBLEM STATEMENT

Challenges in Financial Planning Addressed by WealthWizard:

- **Lack of Personalization:** Traditional financial advisory services often provide generic recommendations that do not account for individual financial goals, risk tolerance, and life stages.
- **Complexity and Accessibility:** Many individuals find financial planning intimidating or inaccessible due to the complexity of financial products and lack of user-friendly interfaces.
- **Overwhelming Information Overload:** Users often face an overwhelming amount of financial information and options, making it difficult to discern what is relevant and actionable.

What makes Wealth Wizard unique:

- **Personalized Financial Guidance:** There is a growing demand for AI-driven solutions that offer personalized financial advice based on real-time data and user-specific information.
- **User Empowerment:** WealthWizard aims to empower users by simplifying financial planning processes, making them more accessible, understandable, and actionable.
- **Enhanced Financial Decision-Making:** By addressing these challenges, WealthWizard seeks to improve users' ability to make informed financial decisions that align with their long-term goals and aspirations.

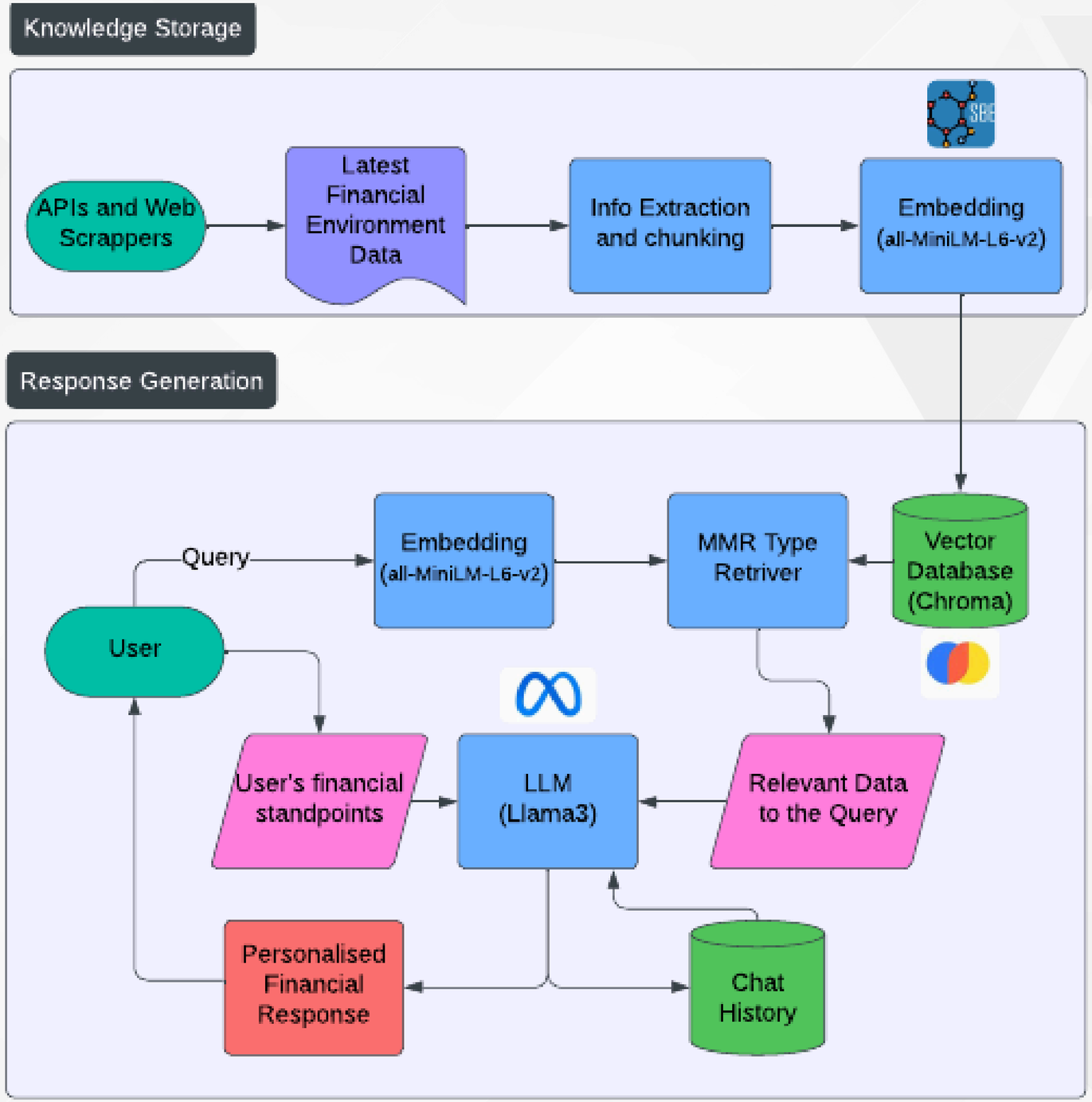
SCOPE

- Integration of advanced AI technologies like **NLP** and **Embedding**.
- Utilize **FastAPI** for backend, **React** for frontend, and **MongoDB** and **Chroma** for data management.
- Continuous improvement through **user feedback.**
- Support for Various Personal Financial Planning Areas i.e. it should cover sub-domains like budgeting, saving, investing, and more.
- Ensure modularity, scalability, and personalization.

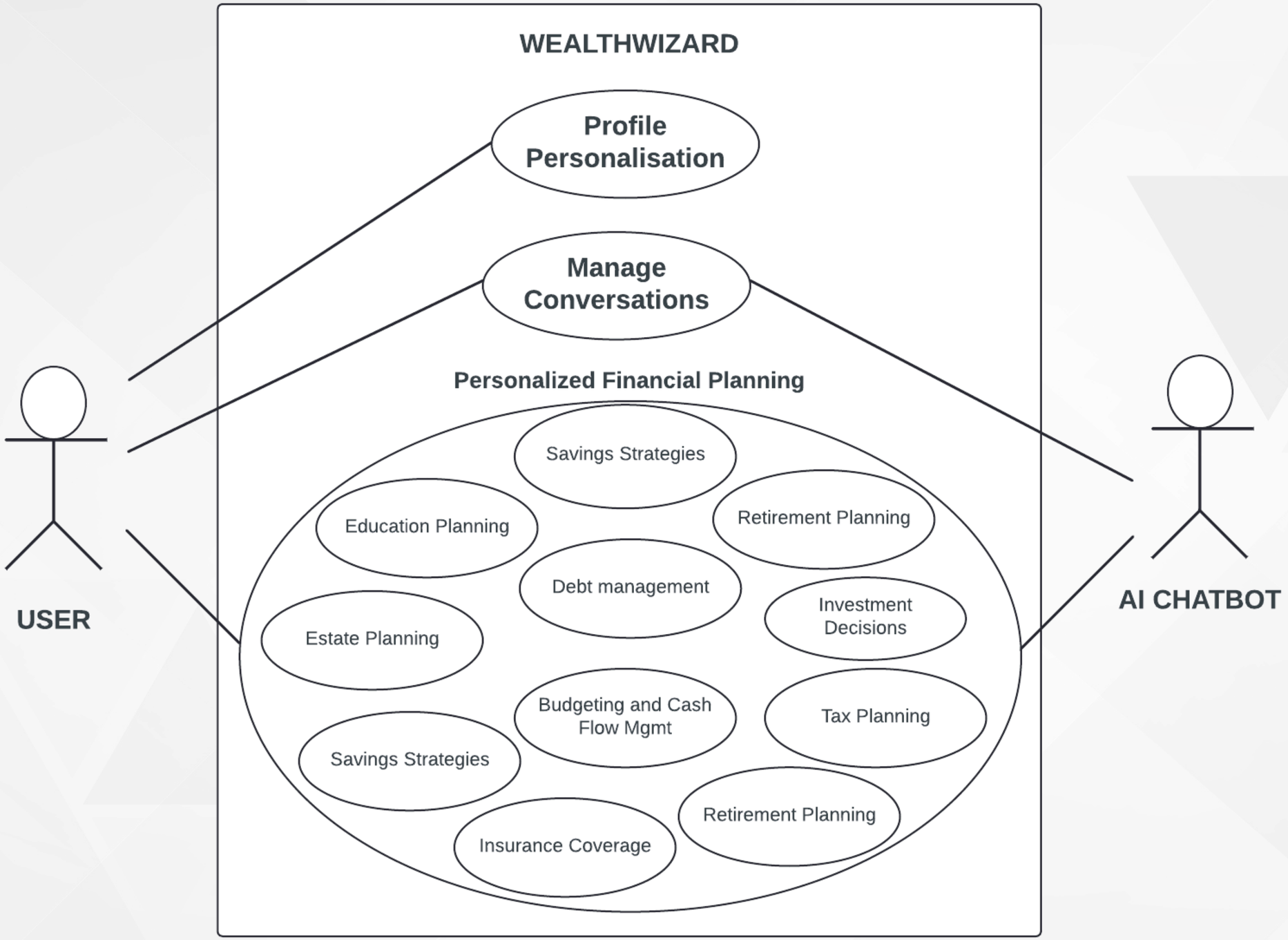
OBJECTIVES

- **Personalized Financial Guidance:** Develop a chatbot for highly personalized financial advice tailored to user profiles and goals.
- **Scalable, Secure Platform:** Build a scalable platform with robust security for seamless performance and data protection.
- **Continuous Learning:** Enable the chatbot to learn and adapt from user interactions and feedback over time.
- **Advanced AI and NLP Integration:** Leverage Langchain and HuggingFace Transformers for sophisticated AI and NLP functionalities.
- **Integrating Latest Technologies:** Use the latest technologies to ensure more accurate and reliable financial advice.

PROCESS FLOW



USE CASE


WEALTHWIZARD
Profile Personalisation
Manage Conversations
Personalized Financial Planning
Savings Strategies
Education Planning
Retirement Planning
Debt management
Investment Decisions
Estate Planning
Budgeting and Cash Flow Mgmt
Tax Planning
Savings Strategies
Retirement Planning
Insurance Coverage
USER
AI CHATBOT

FEATURES

1.**Personalization:** WealthWizard provides highly personalized financial advice by leveraging advanced AI technologies, ensuring recommendations are tailored to individual user needs and financial situations.

2.**Continuous Learning:** The chatbot continuously improves its algorithms through machine learning, ensuring that the advice remains relevant and up-to-date with the latest financial trends and user behaviors.

3.**User-Friendly Interface:** With a React frontend and FastAPI backend, WealthWizard ensures a seamless, intuitive user experience, making financial advice easily accessible to everyone.

4.**Real-time Market Insights:** Uses AI algorithms to provide timely and accurate market trend insights.

5.**Comprehensive Financial Guidance:** Unlike other financial chatbots that may focus on specific areas, WealthWizard offers a holistic approach, covering budgeting, savings, investments, and overall financial planning.

6.**Empowering Financial Literacy:** WealthWizard not only provides advice but also educates users, empowering them to make informed financial decisions. This educational aspect enhances its value, helping users build better financial habits and understanding.

7.**Open-Source Toolset:** WealthWizard is built entirely using open-source technologies, ensuring transparency, flexibility, and community-driven improvements.

TECHSTACK

AI and NLP:

- Langchain: Framework for AI model integration and vector database management.

- HuggingFace Transformers: Advanced NLP models for data embedding.

Additional Technologies:

- ChatOllama: Contextually accurate response generation with help of phi3 / llama3.

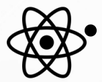
- Chroma: Vector database management system for storing, retrieving, and performing semantic searches on financial data embedding

Backend Development:

- FastAPI: Modern, high-performance web framework for Python APIs.

- MongoDB: Scalable NoSQL database for efficient data storage.

Frontend Development:



- React: Dynamic, responsive UI with real-time interactions.

- Material-UI: Polished, consistent look with pre-designed components and themes.

DATASET LINK: CLICK HERE

CONCLUSION

WealthWizard pioneers AI-driven financial advisory, leveraging advanced technologies like Langchain, HuggingFace Transformers, Vector Databases, FastAPI, React and MongoDB. Continual innovation in natural language processing enhances its ability to deliver personalized, context-aware financial advice. Committed to accessibility and empowerment, WealthWizard reshapes the FinTech industry by democratizing financial guidance. Our focus on user-centric design and scalability ensures precision in every interaction, fostering confidence in informed financial decision-making. WealthWizard aims to provide everyone access to tailored financial insights, driving a more inclusive and empowered financial landscape for all.

THANK YOU