Bank of Baroda Hackathon 2024

FinSage

Personalised Financial Advisers

Your Team Name : AI-intuitionists

Your team bio : We are freshers in the fintech sector with a zeal for technology and problem solving

Date : 30th June, 2024

Problem Statement

Leverage generative AI

*to **create personalized financial education** and **investment recommendations***

for students and new earners

enhancing their engagement and decision-making through tailored content and seamless integration with user data

- We aim to address the gap in financial literacy and investment guidance for students and new earners.
- This demographic often lacks access to personalized financial education and investment strategies, leading to suboptimal financial decisions.
- By leveraging generative AI, we seek to enhance their engagement and improve their financial decision-making, empowering them to build a more secure financial future.

Pre-Requisite

- **ET Money:** Offers tools and calculators for personal finance management, focusing on financial goal planning.
- **Zerodha:** Provides a comprehensive platform for trading and mutual fund investments, along with educational content through Zerodha Varsity.
- **HDFC Securities:** Offers a variety of investment products and educational resources, backed by HDFC Bank.
- **Moneycontrol:** Provides extensive educational content through articles, videos, webinars, and expert opinions on financial topics

Tools or resources

- **Azure Machine Learning:** For training and deploying AI models.

- **Azure Cognitive Services:** For NLP and video generation.

- **Azure SQL Database:** For structured data storage.

- **Azure Data Factory:** For ETL processes and data integration.

- **Azure Synapse Analytics:** For data analysis and insights.

- **Azure App Service:** For hosting web and mobile applications.

- **Azure Functions:** For serverless computing and backend logic.

- **Azure Communication Services:** For multi-channel communication.

- **Azure Key Vault:** For securing sensitive data.

Solution – Methodology & Implementation

- **Product Name:** FinSage

- **Methodology:**

  - Data Collection and Integration: Collect customer data, market data, and user activity data.

  - Model Development: Fine-tune GPT models for personalized content and develop recommendation algorithms.

  - Integration: Use Azure services for data ingestion, model deployment, and real-time content delivery.

  - Content Delivery: Deliver personalized content through newsletters, notifications, and videos.
- **Architecture:**

  - Data Layer: Azure SQL Database and Azure Blob Storage.

  - Processing Layer: Azure Data Factory and Azure Synapse Analytics.

  - AI Layer: Azure Machine Learning and Azure Cognitive Services.

  - Application Layer: Azure App Service and Azure Functions.

Key Differentiators & Adoption Plan

Better Than Alternatives:

- **Personalization:** Highly tailored content based on individual investment patterns and preferences.

- **Integration:** Seamless integration with real-time market data and user activity tracking.

- **User Engagement:** Enhanced engagement through personalized videos and interactive tutorials.

Building Adoption:

- **Marketing Campaigns:** Targeted ads on social media based on browsing patterns of the target age group.

- **Partnerships:** Collaborate with educational institutions to offer the platform as a financial literacy tool.

GitHub Repository Link & supporting diagrams, screenshots, if any

The platform can scale to millions of users, adding new features and expanding into new markets as it grows. Continuous learning from user interactions will enable the platform to adapt and remain relevant.

GitHub repository link: https://github.com/soniYashvardhan/AI-ntuitionists_FinSage_BOB

Business Potential and Relevance

- **Customer Retention**: Increased customer loyalty through personalized communication.

- **Revenue Growth**: Upsell financial products and services based on personalized recommendations.

- **Market Expansion**: Attract new customers, especially students and new earners, through targeted educational content.

Uniqueness of Approach and Solution

- **AI-Driven Personalization:** Leveraging advanced AI models to tailor content to individual needs.

- **Educational Focus:** Providing educational content to improve financial literacy.

- **Real-Time Recommendations:** Delivering timely and relevant investment advice.

User Experience

- **Personalised** Interactive Content: Enhances financial literacy and decision-making.

- **Seamless Integration:** Provides a unified experience combining educational content and investment recommendations.

- Timely Notifications: Keeps users informed and engaged with relevant updates. .

Scalability

- **Azure's Auto-Scaling:** Ensures the platform can handle increased loads.

- **Microservices Architecture:** Allows independent scaling of different components, maintaining performance and reliability.

Ease of Deployment and Maintenance

- **Azure Managed Services:** Simplifies deployment and maintenance.

- **Regular Updates:** Ensures models and data pipelines remain accurate and relevant.

- **Serverless Computing:** Reduces the operational burden of managing servers..

Security Considerations

- **Data Encryption:** Ensures data is encrypted at rest and in transit using Azure Key Vault.

- **Access Control:** Implements robust authentication and authorization mechanisms using Azure Active Directory.

- **Compliance:** Adheres to GDPR and other data protection regulations to ensure user data privacy.

The Team

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