

TEAM 23

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THEME: POWER OF DATA SIGNALS

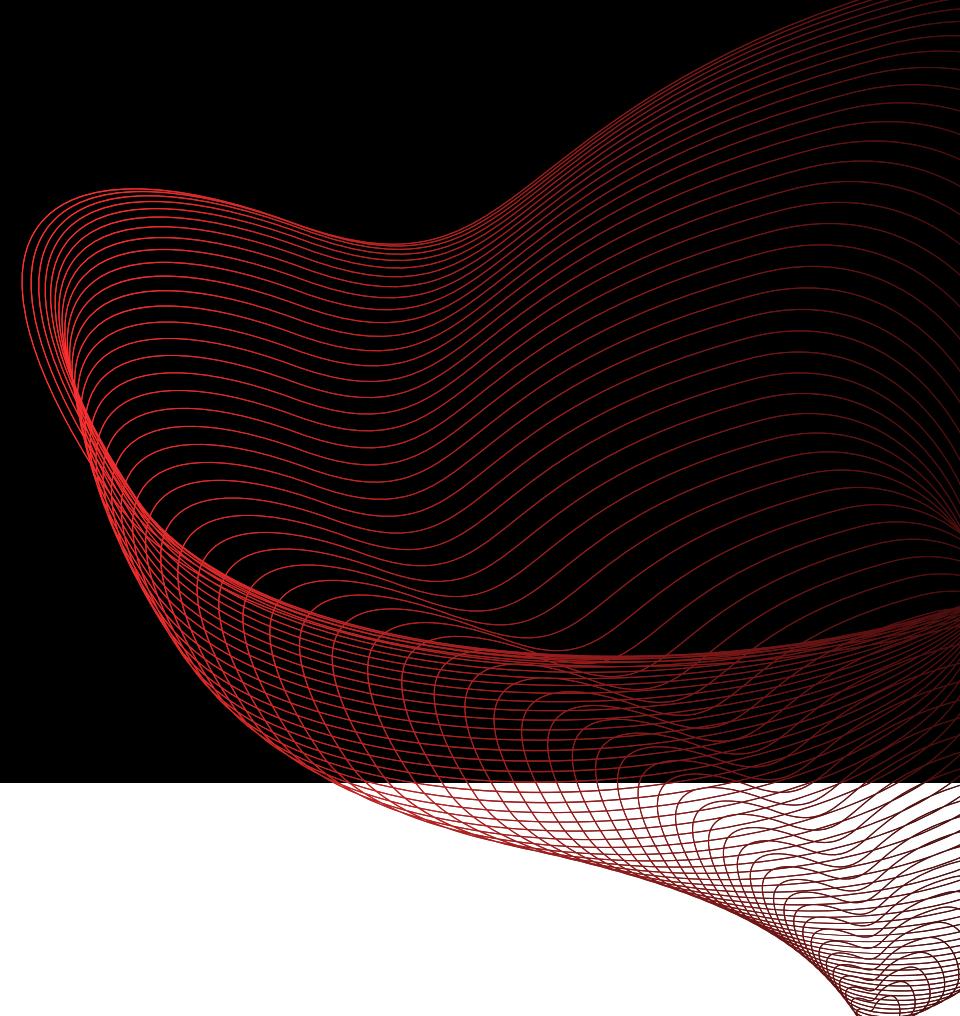
Objective: To develop and deploy data-driven products for diverse demographics and geographies, driving widespread financial services adoption. This entails advanced analytics, technology, and customer insights to craft custom solutions meeting distinct regional needs. Key strategy components:

- **Data Signals and Advanced Analytics**-Drive informed product development by analyzing user behavior and preferences through advanced analytics.
- **Innovative Product Development**-Address diverse customer needs with groundbreaking financial solutions powered by technology and insights.
- **Geographical Considerations**-Tailor products to local conditions and regulations, promoting adoption across regions and demographics.
- **Tailored User Experiences**-Enhance adoption and satisfaction with user-friendly interfaces and culturally relevant interactions.

Develop and implement an innovative solution that leverages the potential of data signals to cater to diverse demographics and geographies, thereby facilitating the widespread adoption of financial services.

PROBLEM STATEMENT

DATA SOURCES



Market Data : <https://pypi.org/project/yfinance/>

Sector-wise Performance of Stock Ticker : <https://site.financialmodelingprep.com/developer/docs/>

API for General and Financial news : <https://newsapi.org/>

API for plots of economic trends : <https://fred.stlouisfed.org/docs/api/fred/>

Dataset for Loan Prediction ML Model : <https://www.kaggle.com/datasets/altruistdelhite04/loan-prediction-problem-dataset>

Transactional Data and Credit Card Data : Self-generated

DETAILED DESCRIPTION OF THE SOLUTION

- **Financial Health Overview :** Receive a comprehensive view of user's financial status, including net worth, age, assets, debt, etc.

home

credit card recommends

financial news

financial tracker

general news

loan status

transactions analyzer

trends

FIN SMART

General Questionnaire

Select your portfolio (Minimum of 3 Stocks)

AAPL × NVDA × TSLA ×

How much money would you like to invest?

Input amount
5000 - +

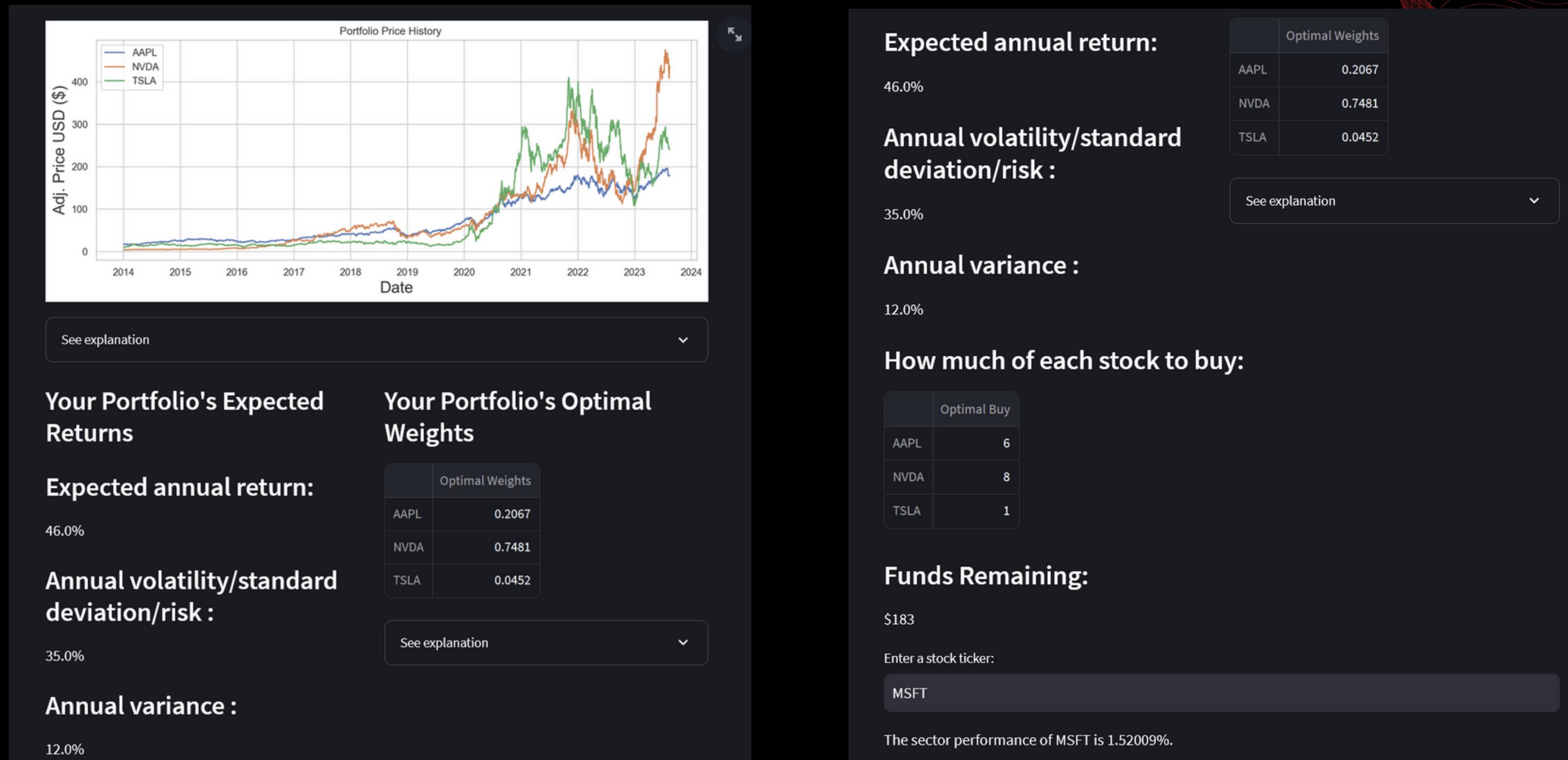
What is your age?
22 - +

What is your income bracket?
₹200,000+ ▾

What is your risk tolerance?
 Very low risk
 Low risk
 Medium risk

DETAILED DESCRIPTION OF THE SOLUTION

- **Portfolio Optimization :** Harnessing PyPortfolioOpt's powerful tools for asset allocation and risk management, while utilizing yfinance to seamlessly retrieve and incorporate accurate and up-to-date stock market data.



DETAILED DESCRIPTION OF THE SOLUTION

- **Credit Card Recommendations:** Personalized suggestions for credit cards aligned with user's financial profile and preferences.

Credit Card Recommender

Annual income

500000 - +

Credit score

800 - +

Spending habits

Travel x Shopping x ✖️ ▾

Here are the credit card recommendations for you:

- Chase Sapphire Preferred® Card: 2x points on travel and dining
- Capital One Venture Rewards® Credit Card: 2x miles on every purchase
- Chase Freedom Unlimited®: 5% cash back on travel purchased through Chase Ultimate Rewards®, 3% cash back on dining and drugstores, and 1% cash back on all other purchases
- American Express® Gold Card: 4x points at restaurants worldwide, 4x points on flights booked directly with airlines or on Amex Travel, and 1x points on all other purchases

DETAILED DESCRIPTION OF THE SOLUTION

- **Financial News:** Stay informed about market trends and economic developments with curated financial news articles. Obtain a concise understanding of the article's content through the generated summary, along with an associated sentiment score.

Filtered Financial News Analysis



*The user can also enter his location to get news pertaining to his location.

DETAILED DESCRIPTION OF THE SOLUTION

- **Financial Tracker:** Efficiently manage finances, establish budgets, and gain insights for improved money management.

Transactional Data Analysis

This section analyzes your transactional data over a period of time.

Number of simulated transactions

150

Select Date Range for Analysis:

Select start date

2015/08/01

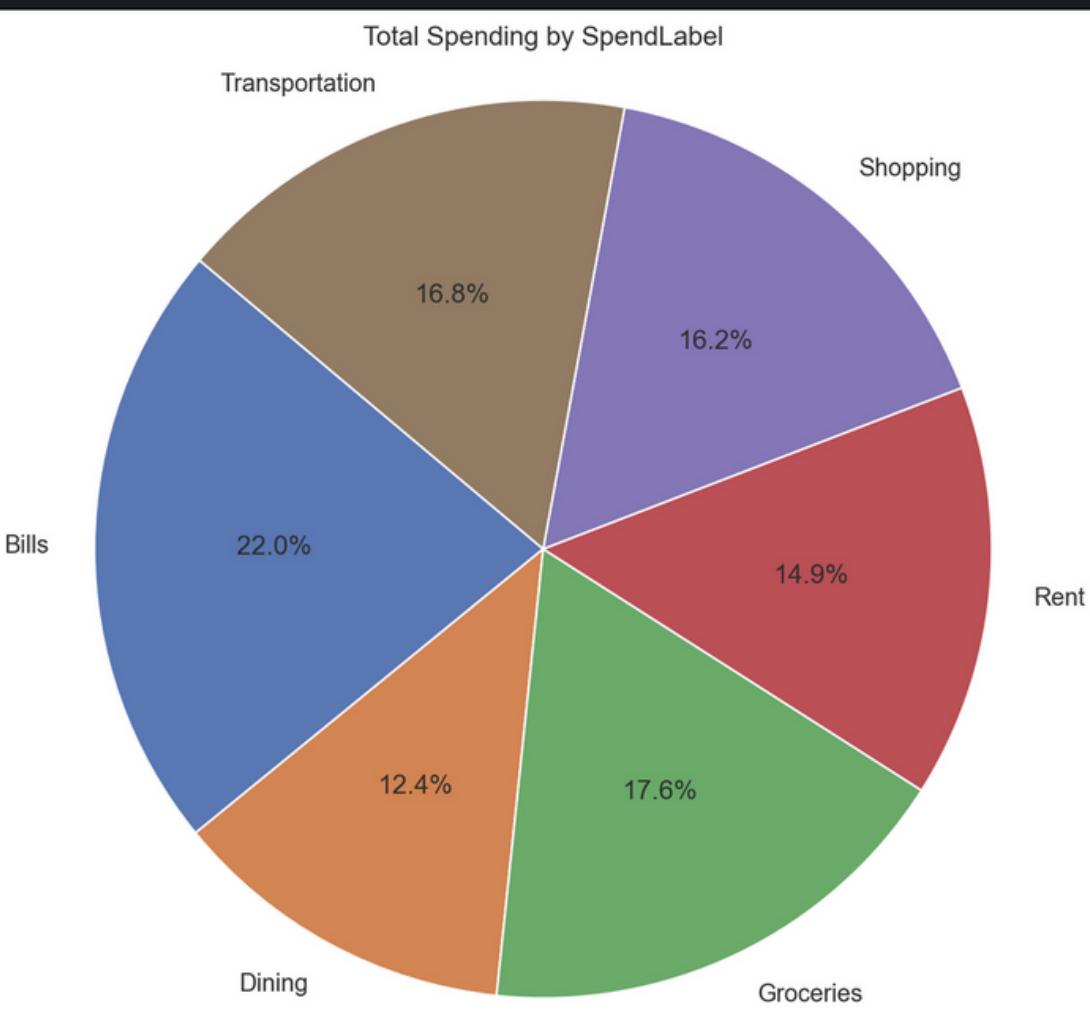
Select a transaction category

Shopping

Sample Transactional Data:

	Date	Category	SpendLabel	Amount
0	2015-01-10 00:00:00	Dining	Shopping	42.1764
1	2015-01-31 23:31:00	Entertainment	Transportation	76.7056
2	2015-02-22 23:02:00	Entertainment	Transportation	176.8274
3	2015-03-16 22:33:01	Shopping	Shopping	320.0248
4	2015-04-07 22:04:01	Entertainment	Rent	333.4162
5	2015-04-29 21:35:02	Transportation	Dining	480.0408
6	2015-05-21 21:06:02	Groceries	Groceries	187.8073
7	2015-06-12 20:37:02	Transportation	Dining	97.1327
8	2015-07-04 20:08:03	Shopping	Bills	71.8032
9	2015-07-26 19:39:03	Shopping	Rent	389.4425

Transaction Trends for Category: Shopping



DETAILED DESCRIPTION OF THE SOLUTION

- **Loan Status :** Check loan eligibility based on user's financial profile.
- This can be enhanced by incorporating a range of loan options, including Car Loan, Home Loan, and more.

Loan Status Prediction

Please provide the following details to predict the loan status:

Marital Status: Single

Number of Dependents: 2

Education: Not Graduate

Self Employed: Yes

Credit History: 0.0

Gender: Male

Property Area: Rural

Total Income: 1000.00

EMI: 800.00

Balance Income: 100.00

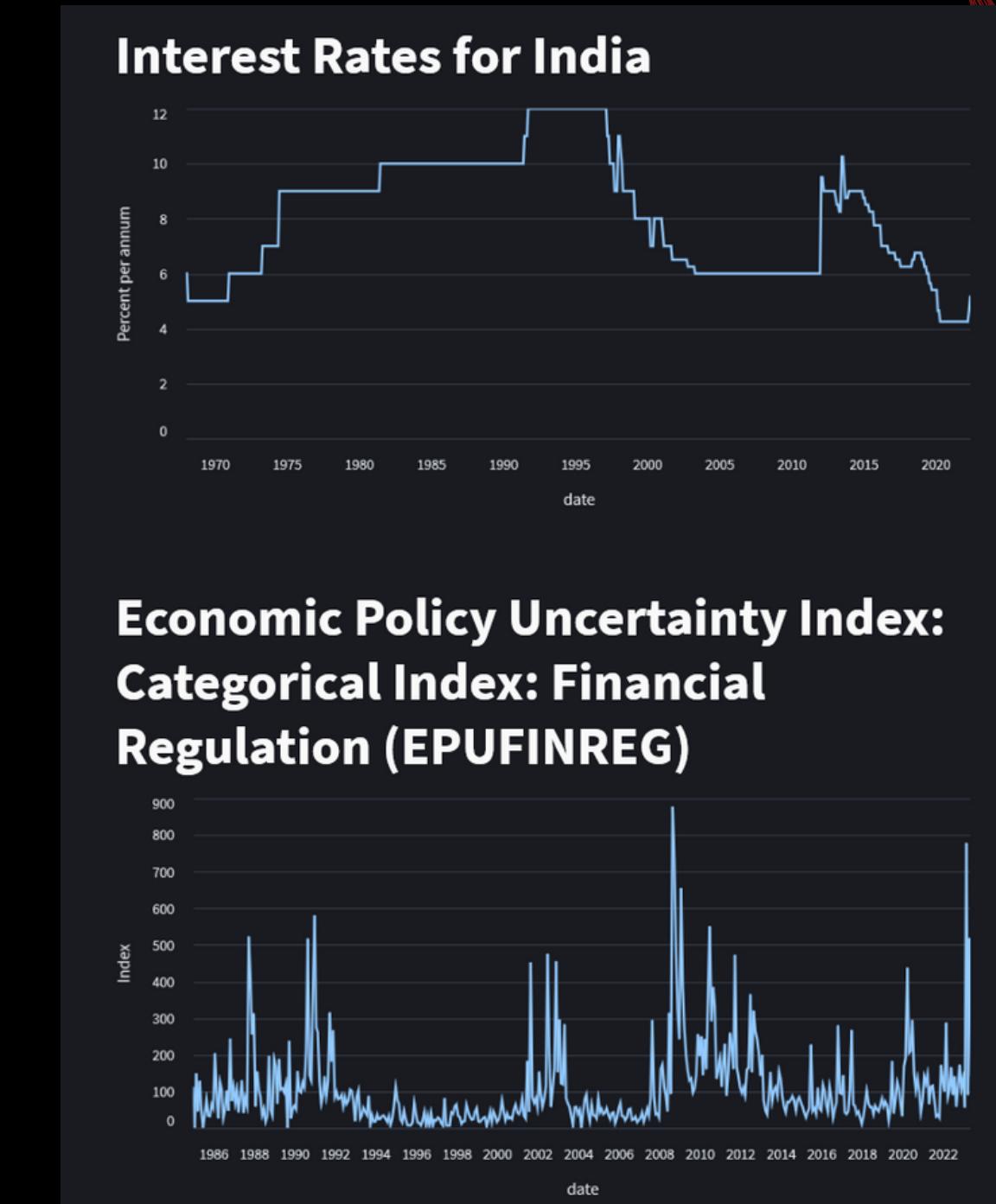
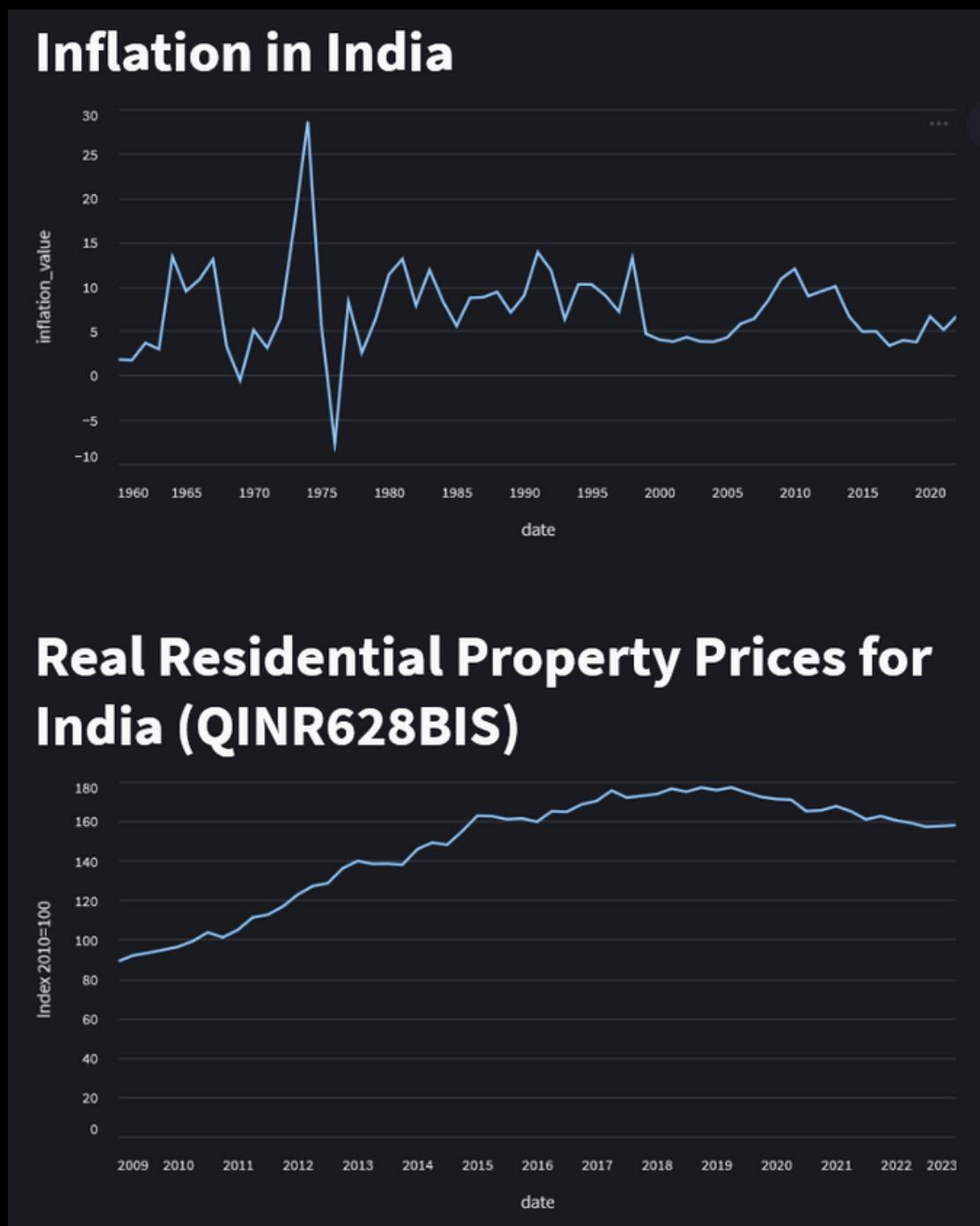
Predict Loan Status

Loan Status: 0

You are not eligible for the loan!!

DETAILED DESCRIPTION OF THE SOLUTION

- **Economic Trends :** Visualizing prevailing economic trends through the utilization of the FRED API, providing insightful representations of key economic indicators.



UNIQUE SELLING PROPOSITION (USP) OF OUR SOLUTION

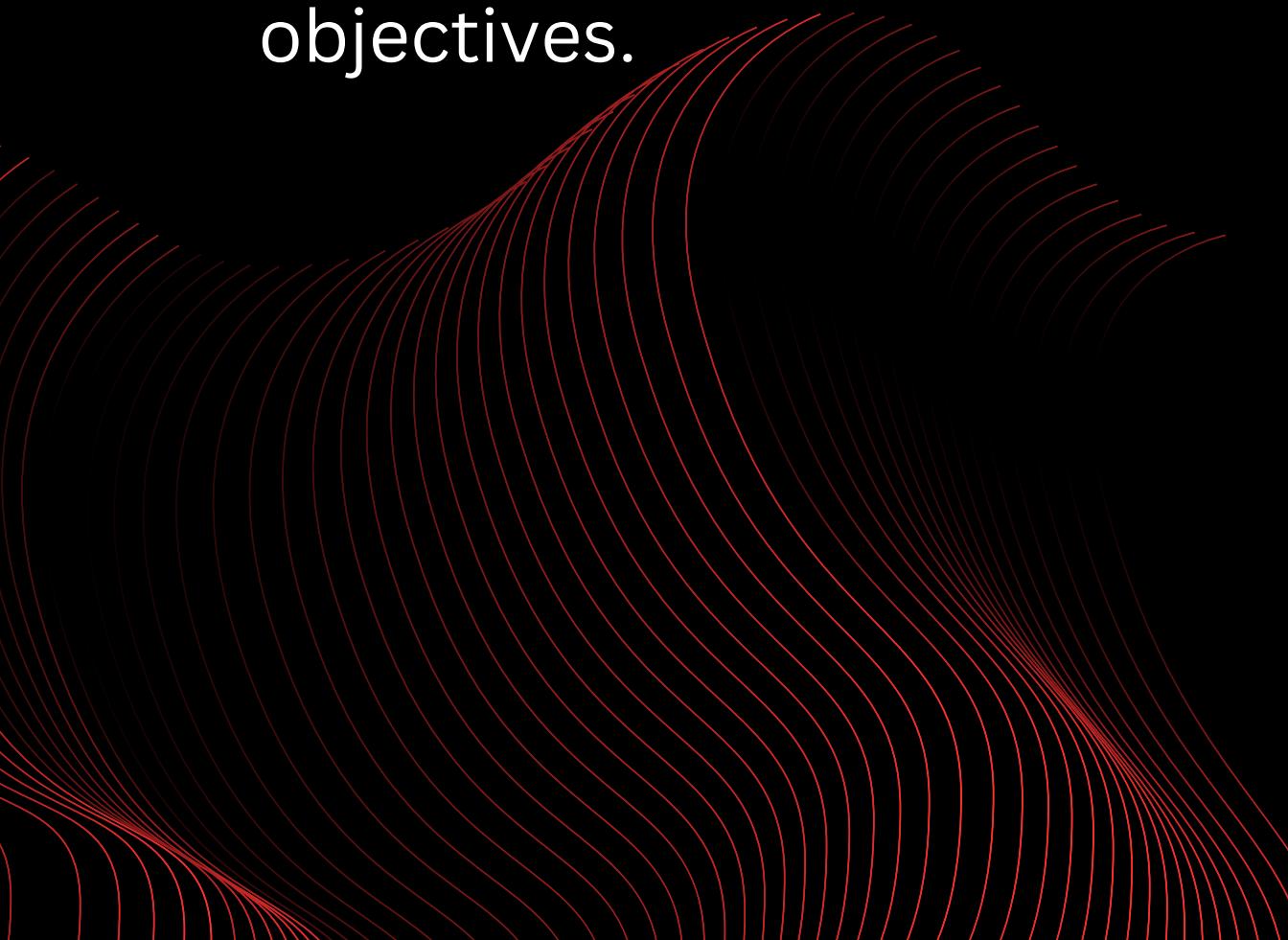
- **Holistic Financial Management:** A comprehensive platform that covers various aspects of personal finance, from portfolio optimization to investment advice. Users can rely on a single solution for their financial planning needs, making it convenient and efficient.
- **Personalized Credit Card Recommendations:** Offering tailored credit card recommendations based on user preferences not only enhances user experience but also provides targeted advertising opportunities for credit card providers, creating a win-win scenario for both users and advertisers.
- **Insightful Financial News:** Delivering financial and general news with summarized results, sentiment scores, and word clouds adds value by presenting information in a visually engaging and easily digestible format. Users can quickly grasp the key takeaways and sentiment behind the news.
- **Accurate Loan Eligibility Prediction:** The ability to predict loan eligibility empowers users to make informed decisions about borrowing. This feature boosts financial literacy and also streamlines the loan acquisition process.

UNIQUE SELLING PROPOSITION (USP) OF OUR SOLUTION

- **Transaction Analysis for Smart Decision-Making:** Providing users with a detailed analysis of their transactions helps them gain insights into their spending habits and financial patterns. This feature promotes responsible financial decision-making and budgeting.
- **Economic Trend Visualization:** Enabling users to visualize economic trends fosters a deeper understanding of the financial landscape. Users can make informed investment choices by keeping track of market trends and adjusting their portfolios accordingly.
- **Simplified Financial Empowerment:** Our solution combines multiple financial tools into one cohesive platform, simplifying financial management for users. This all-in-one solution saves users' time and effort while providing them with the tools they need to make confident financial decisions.
- **Data-Driven Insights:** Leveraging data analysis and visualization tools, our solution equips users with data-driven insights into their finances. This empowers users to take control of their financial well-being and work towards their goals.

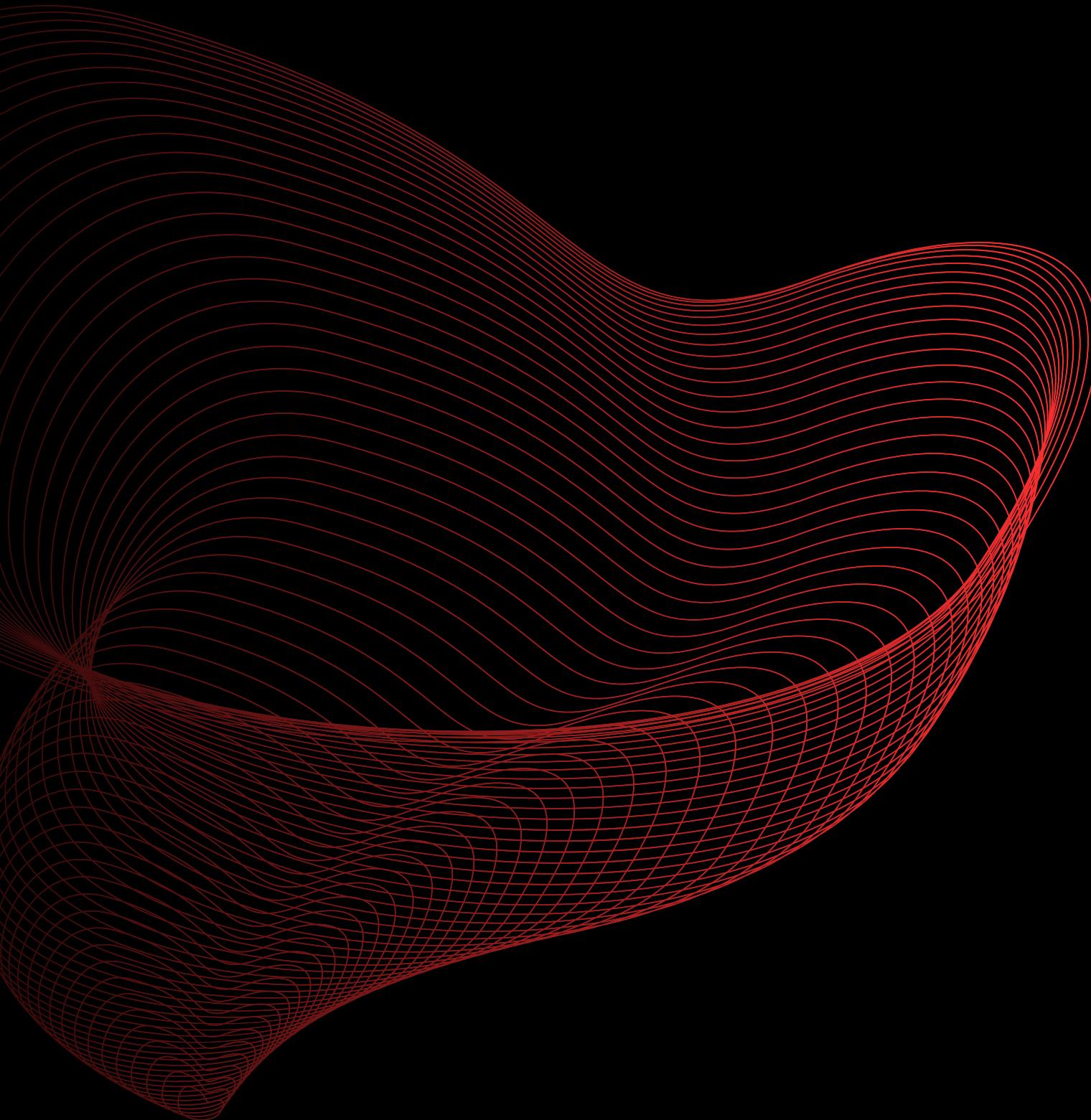
UNIQUE SELLING PROPOSITION (USP) OF OUR SOLUTION

- **User-Centric Experience:** By offering personalized recommendations, summarizing information, and providing visualizations, our solution prioritizes the user experience. This focus on user needs enhances engagement and encourages long-term usage.
- **Empowering Financial Literacy:** Through features like portfolio optimization, investment advice, and transaction analysis, our solution contributes to improving users' financial literacy. Educated users are more likely to make informed choices and achieve their financial objectives.



RISKS / CHALLENGES / DEPENDENCIES

- **Data Privacy and Security:** Handling sensitive financial data requires robust security measures to prevent breaches or unauthorized access, and to maintain user trust.
- **Accuracy of Recommendations:** Dependence on AI algorithms may lead to inaccurate or biased recommendations, impacting users' financial decisions.
- **Market Volatility:** Rapid changes in investment markets can render certain recommendations obsolete or suboptimal.
- **Regulatory Compliance:** Adhering to financial regulations and data protection laws across jurisdictions is crucial but complex.
- **Economic Factors:** Economic downturns or regulatory changes may impact the app's ability to provide relevant recommendations.
- **Dependence on APIs and Third-Party Services:** Features like news and economic trend visualizations depend on external APIs and services. Any changes or disruptions to these services can impact the functionality of the platform.



THANK YOU