iJRASET
International Journal For Research in Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 14 **Issue:** IV **Month of publication:** April 2026

DOI: https://doi.org/10.22214/ijraset.2026.80031

www.ijraset.com

Call: 08813907089 | E-mail ID: ijraset@gmail.com

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Volume 14 Issue IV Apr 2026- Available at www.ijraset.com

FinanceAI: An Intelligent Rule-Based Personal Finance Management System

Prof. Madhuri Patil[1], Omkar Dubal[2], Swapnali Galande[3], Salwa Khalfe[4], Vaibhav Pol[5]
[1]*Department of Information Technology Engineering, MGM's College of Engineering and Technology, Navi Mumbai, Maharashtra, India*
[2, 3, 4, 5]*B.E in Information Technology Engineering, MGM's College of Engineering and Technology, Navi Mumbai, Maharashtra, India*

Abstract: ***This paper presents FinanceAI, an intelligent rule-based personal finance management system designed for effective tracking, analysis, and optimization of individual financial activities. The system integrates multiple financial modules including income tracking, expense management, budgeting, savings goals, debt monitoring, investment analysis, and financial reminders within a unified platform. It utilizes a rule-based recommendation engine to analyze user financial behavior and generate real-time alerts and actionable insights based on parameters such as spending patterns, savings rate, budget utilization, and debt ratio.***
The system is developed using a modern web-based architecture with React for the frontend and Spring Boot for backend services, supported by PostgreSQL for data storage and JWT-based authentication for secure access. Interactive dashboards and visualization tools provide users with a clear understanding of financial trends and overall financial health. Experimental evaluation demonstrates efficient real-time performance with minimal latency and improved user awareness of financial habits. The proposed system offers a scalable and user-friendly solution for personal finance management, with future scope for integration of machine learning models and predictive analytics for enhanced intelligent decision support.
Keywords: Personal Finance Management, Financial Analytics, Rule-Based System, Budget Tracking, Expense Management, Income Tracking, Savings Goals, Debt Management, Investment Analysis, Financial Dashboard, Real-Time Data Processing, Decision Support System, Web Application, Financial Planning, Secure Authentication.

I. INTRODUCTION

The increasing complexity of personal financial management in the digital era has created a need for intelligent and user-friendly financial systems. With multiple income sources, digital transactions, and diverse investments, individuals struggle to track and manage finances effectively. Traditional methods like manual records and spreadsheets are inefficient and lack real-time analytical capabilities, limiting informed decision-making [1]–[3]. Existing financial applications provide basic expense tracking but lack intelligent analysis and actionable insights, making it difficult for users to understand spending patterns and optimize savings [4]–[6]. Moreover, managing financial components such as income, expenses, budgeting, and investments separately leads to fragmented understanding and poor financial planning [7]–[9]. To overcome these challenges, there is a growing need for integrated systems that offer real-time data processing, personalized insights, and proactive financial guidance. Rule-based systems provide a lightweight and efficient solution by generating insights using predefined conditions without requiring complex machine learning models [10]–[15]. This paper proposes FinanceAI, a rule-based personal finance management system that integrates income tracking, expense management, budgeting, savings, and investment analysis into a unified platform. The system provides real-time insights, interactive visualization, and intelligent recommendations to improve financial awareness and decision-making. It also offers a scalable foundation for future integration of advanced AI techniques [16]–[22].

II. LITERATURE REVIEW

A. Overview of Existing Personal Finance Management Approaches

The management of personal finances has gained significant attention due to the increasing complexity of digital transactions, multiple income sources, and diverse investment options. Early approaches relied on manual record-keeping and spreadsheet-based systems, which were prone to errors and lacked real-time analytical capabilities, limiting effective financial decision-making [1]–[3]. With the emergence of financial technology applications, digital platforms for expense tracking and budgeting were introduced.

©IJRASET: All Rights are Reserved

These systems improved accessibility and usability but primarily focused on basic data recording, lacking intelligent mechanisms to analyze financial behavior and generate actionable insights [4]–[6]. As a result, users often struggle to identify spending patterns and optimize savings.

Recent advancements have incorporated data analytics and intelligent systems to enhance financial decision support. Techniques such as data aggregation, visualization dashboards, and automated alerts have improved user awareness. However, many systems still operate in a fragmented manner, managing income, expenses, savings, and investments separately, leading to incomplete financial understanding [7]–[9].

To address these limitations, rule-based systems have been explored as an efficient alternative to complex machine learning models. These systems evaluate financial parameters such as income, expenses, savings rate, and debt ratio using predefined rules and thresholds to generate real-time insights and recommendations. They provide a lightweight, interpretable, and scalable solution suitable for real-time applications [10]–[15].

The proposed FinanceAI system builds upon these approaches by integrating multiple financial components into a unified platform with a rule-based recommendation engine. It enables real-time data processing, interactive visualization, and personalized financial insights, thereby improving financial awareness and decision-making. Additionally, the modular architecture supports future integration of advanced analytics and machine learning techniques for enhanced predictive capabilities.

III. DATASET DESCRIPTION

The dataset used in the proposed FinanceAI system consists of structured financial data generated through user interactions rather than pre-labeled textual data.

The data includes multiple financial attributes such as income records, expense transactions, budget allocations, savings details, debt information, and investment entries. These records are dynamically collected through the application interface and stored in a centralized database for real-time processing and analysis.

To ensure data consistency and reliability, preprocessing steps are applied to the collected financial data. These include validation of input fields, removal of incomplete or inconsistent entries, categorization of transactions into income and expense types, and standardization of numerical values. Derived financial metrics such as total income, total expenses, savings amount, budget utilization, and debt-to-income ratio are computed during preprocessing to support further analysis.

The dataset is continuously updated as users interact with the system, enabling real-time financial monitoring and analysis. Instead of a traditional training-testing split, the system evaluates financial data dynamically using rule-based logic. This approach ensures consistent performance, eliminates dependency on large labeled datasets, and provides accurate, real-time financial insights tailored to individual user behavior.

IV. SYSTEM ARCHITECTURE

As As shown in Fig. 1, the proposed FinanceAI system adopts a modular, rule-based architecture that integrates real-time data processing, financial analysis, and interactive visualization within a unified platform [7], [11]. Unlike machine learning-based systems, the architecture focuses on efficient and interpretable financial decision support using predefined rules and structured data processing.

The system is designed to analyze user financial data and provide actionable insights through three major components: data processing layer, rule-based analysis engine, and web-based user interface [1], [14].

A. System Design Strategy

The proposed system follows a layered architecture consisting of data acquisition, processing, analysis, and visualization modules. Each component contributes to the overall financial decision-support pipeline.

The system evaluates key financial indicators such as income, expenses, savings rate, budget utilization, and debt-to-income ratio using predefined rules and thresholds.

The Unlike hybrid AI models, the system relies on a rule-based evaluation mechanism, ensuring real-time performance, low computational overhead, and high interpretability. Critical financial conditions such as overspending, low savings, and high debt are identified using threshold-based logic, enabling immediate alerts and recommendations.

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |

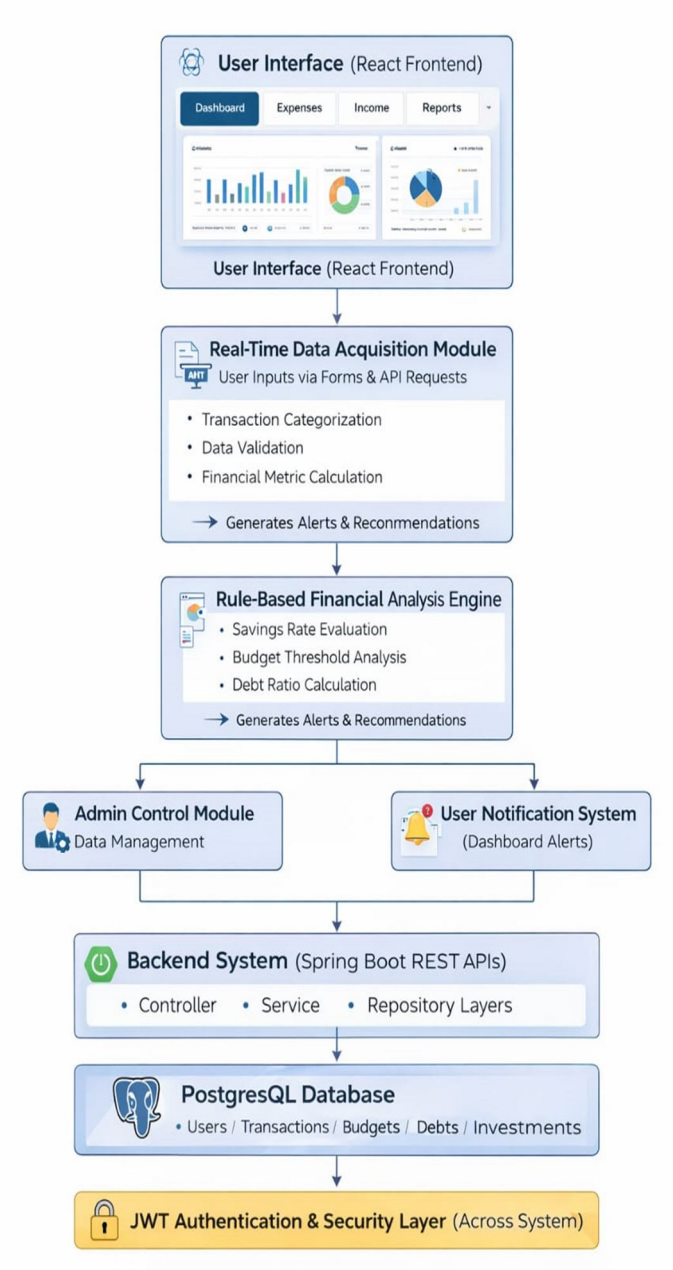


Fig. 1. Personal Finance Management System Architecture

B. Data Preprocessing Layer.

The The system first processes raw financial inputs collected from users, including income details, expense transactions, budgets, savings, and debts. Data preprocessing ensures consistency by validating inputs, categorizing transactions, and standardizing numerical values.

Derived financial metrics such as total income, total expenses, savings, and budget utilization are computed during this stage. These processed values form the foundation for financial analysis and decision-making.

C. Rule-Based Financial Analysis Engine.

The core component of the system is the rule-based analysis engine, which evaluates financial data using predefined conditions. The engine computes key financial metrics and compares them against threshold values to assess financial health.

For example:

- If expenses exceed the budget limit → Overspending alert
- If savings rate falls below threshold → Low savings warning
- If debt-to-income ratio is high → Financial risk alert

This approach ensures deterministic outputs, real-time responsiveness, and ease of implementation without requiring complex model training [7], [11], [20]

D. Financial Insight and Alert Generation

To enhance interpretability, the system generates real-time alerts and recommendations based on evaluated financial conditions. Users receive insights such as spending analysis, savings suggestions, and debt management guidance.

Financial status is categorized into levels such as good, moderate, and critical, enabling users to quickly understand their financial condition and take corrective actions [14], [15].

E. Web Application Interface

A web-based interface allows users to input financial data and view real-time analysis through an interactive dashboard. The platform displays financial summaries, graphical visualizations, and system-generated alerts.

Charts such as pie graphs and bar diagrams represent income, expenses, and savings trends, improving user understanding. The system ensures seamless interaction, scalability, and secure access through modern web technologies, providing an efficient and user-friendly financial management experience [1], [20].

V. IMPLEMENTATION DETAILS

The proposed FinanceAI system was implemented using a modern full-stack web architecture, integrating frontend, backend, and database technologies to enable real-time financial data processing and intelligent decision support. The backend is developed using Spring Boot (Java), while the frontend is built using React, and PostgreSQL is used for structured data storage.

Financial data preprocessing and analysis are handled within the backend services. User inputs such as income, expenses, budgets, savings, debts, and investments are validated, categorized, and normalized to ensure consistency and accuracy. Unlike text-based systems, the implementation focuses on structured financial data processing, where numerical values are standardized and aggregated to compute key financial indicators.

The core logic of the system is implemented through a rule-based financial analysis engine. This engine evaluates financial parameters such as total income, total expenses, savings rate, budget utilization, and debt-to-income ratio using predefined thresholds. Based on these evaluations, the system generates real-time alerts and actionable recommendations, such as overspending warnings, low savings notifications, and high debt alerts.

The backend exposes RESTful APIs that handle data processing, business logic, and communication with the frontend. Axios is used on the client side to enable asynchronous API calls, ensuring seamless and real-time updates without page reloads. The system continuously processes user inputs and updates financial insights dynamically.

A secure authentication mechanism is implemented using JWT (JSON Web Token) and Spring Security. User credentials are encrypted using BCrypt before being stored in the database. Upon successful login, a token is generated and used to authenticate subsequent requests, ensuring secure access to user-specific financial data.

The frontend interface provides an interactive dashboard where users can input financial data and visualize their financial status. Various components such as expense tracking, budget management, savings analysis, and investment tracking are integrated into a unified interface. Graphical representations such as pie charts, bar graphs, and summary panels are used to display financial insights in an intuitive manner.

The system is designed to support real-time processing and low latency. Whenever a user updates financial data, the backend recalculates financial metrics and updates the dashboard instantly. This ensures continuous monitoring of financial conditions and immediate feedback to the use.

To improve system efficiency, optimization techniques such as efficient API handling, asynchronous processing, and modular service design are applied. The system maintains low computational overhead since it does not rely on complex machine learning models. This makes it suitable for deployment on standard hardware environments without requiring high computational resources.

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |

ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Volume 14 Issue IV Apr 2026- Available at www.ijraset.com

The implementation follows a modular architecture, where each component (data processing, rule engine, visualization, and authentication) operates independently. This design ensures maintainability, scalability, and ease of future enhancements, such as integration of machine learning models, external financial APIs, or mobile application support.

The system was tested across multiple user scenarios, including high expenditure patterns, low savings conditions, and high debt situations. The implementation demonstrated consistent performance, accurate financial analysis, and reliable alert generation under varying conditions. Overall, the FinanceAI system provides a scalable, efficient, and user-friendly solution for real-time personal finance management.

VI. MATHEMATICAL MODELING

The proposed FinanceAI system uses a rule-based mathematical framework to evaluate user financial health and generate real-time insights. Unlike machine learning models, the system relies on deterministic financial formulas and threshold-based evaluation to ensure simplicity, interpretability, and efficiency [7], [11].

A. Financial Feature Representation

The system processes structured financial inputs collected from users, including income, expenses, budget limits, savings, and debts. These inputs are represented as numerical variables and aggregated over a given time period (e.g., monthly).

Let :

- I = Total Income
- E = Total Expenses
- B = Budget Limit
- D = Total Debt

These features form the basis for computing financial indicators used in analysis.

B. Savings Rate (SR) Calculation.

$$\mathbf{SR = (Income - Expenses) / Income} \quad (1)$$

The savings rate represents the proportion of income retained after expenses. It is a key indicator of financial stability. Higher values indicate better savings behavior, while lower values suggest excessive spending.

C. Budget Utilization (BU).

$$\mathbf{BU = Expenses / Budget\ Limit} \quad (2)$$

Budget utilization measures how effectively a user adheres to predefined budget constraints. A value greater than 1 indicates overspending, triggering alerts within the system.

D. Debt-to-Income Ratio (DIR).

$$\mathbf{DIR = Total\ Debt / Income} \quad (3)$$

This metric evaluates the financial burden of debt relative to income. Higher values indicate increased financial risk and reduced repayment capacity.

E. Rule-Based Recommendation Algorithm.

The proposed system employs a rule-based algorithm to generate financial insights and alerts. The algorithm evaluates computed financial metrics against predefined thresholds to identify potential risks and opportunities.

1) Step 1: Collect user financial data
2) Step 2: Process and categorize transactions
3) Step 3: Compute financial metrics (SR, BU, DIR)
4) Step 4: Evaluate conditions using predefined rules
5) Step 5: Generate insights and alerts (e.g., overspending warning, low savings alert)

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |

6) Step 6: Display recommendations on dashboard

This rule-based approach ensures real-time responsiveness, simplicity, and ease of implementation while providing meaningful financial guidance. The modular design also allows future integration of machine learning models for predictive analytics and enhanced decision support.

F. Rule-Based Alert Generation.

The system generates alerts based on evaluation of financial metrics:

- If $BU > 1$ → Overspending Alert
- If $SR <$ threshold → Low Savings Warning
- If $DIR >$ threshold → High Debt Risk Alert

These rules ensure immediate detection of unfavorable financial conditions and enable proactive corrective actions.

VII. RESULTS AND DISCUSSION

As shown in Fig. 1, Fig. 2, Fig. 3, and Fig. 4, the proposed FinanceAI system accurately analyzes user financial data and generates appropriate insights such as overspending alerts, low savings warnings, and high debt notifications. The system consistently categorizes financial conditions into good, moderate, and critical levels based on predefined thresholds, demonstrating reliable real-time performance and effective decision support consistent with rule-based financial analysis approaches [7], [11].

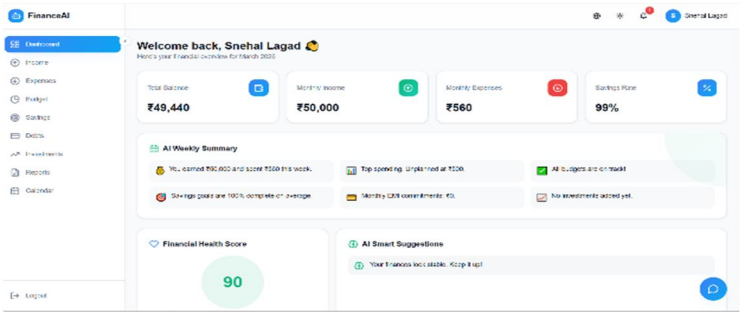


Fig. 1. User Page Dashboard

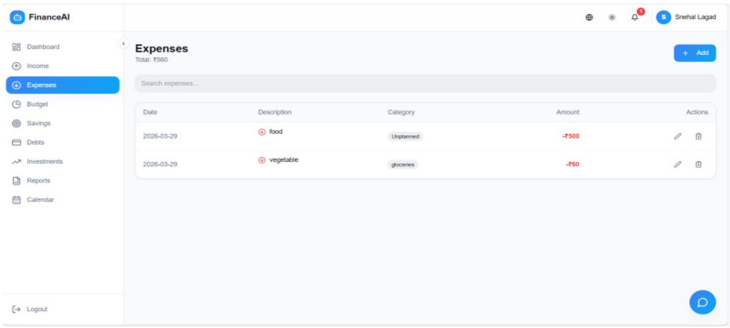


Fig. 2. Expense Management Page

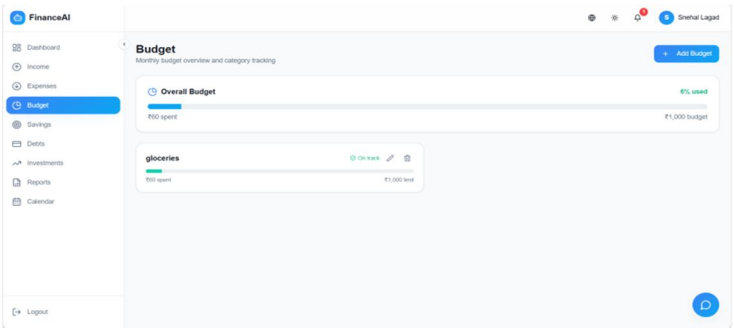


Fig. 3. Budget Management Page

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |

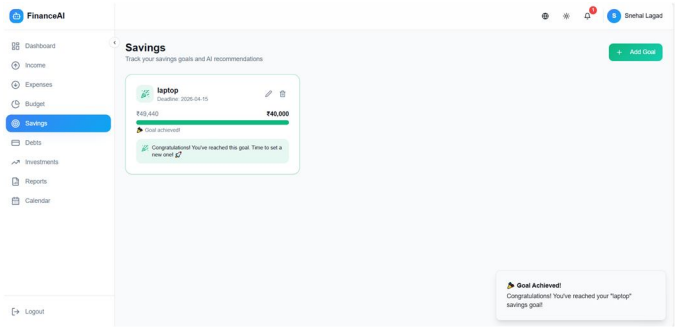


Fig. 3. Saving Analysis Page

User authentication is implemented through a secure login mechanism using JWT-based token validation. Each registered user can securely access their personal financial data. Sensitive information such as passwords is encrypted using BCrypt, ensuring data privacy and protection against unauthorized access.

For registered users, the dashboard presents a real-time overview of financial status, including total income, total expenses, savings, and budget utilization. The information is visually represented using charts and summary panels, allowing users to easily understand their financial condition. Category-wise expense distribution and income trends are displayed using graphical representations such as pie charts and bar graphs.

When predefined financial thresholds are exceeded, the system automatically generates alerts containing important details such as overspending warnings, low savings notifications, and high debt alerts. These alerts are instantly reflected on the user dashboard, ensuring timely awareness and enabling users to take corrective actions.

In critical financial situations, such as excessive debt or continuous overspending, the system highlights warnings prominently on the dashboard. This mechanism improves financial awareness and helps users make informed decisions regarding their spending and savings habits.

In addition to visual notifications, the system supports real-time updates that dynamically reflect changes in financial data. As users add or modify transactions, the dashboard automatically updates charts and summaries without requiring page refresh, ensuring a smooth and interactive user experience.

A. System Performance Evaluation

The FinanceAI system was evaluated using real-time financial data and simulated user scenarios. The performance metrics are summarized in Table I

TABLE I
FinanceAI System Perfromance

Metric	**Score (%)**
Financial Calculation Accuracy	> 95
Alert Accuracy	> 95
Decision Accuracy	> 95
Response Time	1–2 sec
Alert Consistency	High

These results indicate that the proposed system accurately evaluates financial conditions and generates reliable alerts. The rule-based approach ensures deterministic outputs; however, minor inaccuracies may occur due to incorrect or incomplete user inputs.

B. Comparative System Evaluation

The performance of the proposed system was compared with traditional financial systems and basic finance applications, as shown in Table II.

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |

TABLE II
Comparison Of Existing System And Proposed System

Feature	Traditional Systems	Basic Apps	Finance AI
Functionality	Limited	Moderate	Integrated
Data Processing	Manual	Semi-automatic	Real-time
Alerts	Minimal	Basic	Intelligent
Accuracy	Low	Moderate	High (>95%)
Response Time	High	Moderate	Low (1–2 sec)

The proposed system demonstrates improved performance by integrating real-time processing and intelligent rule-based analysis, leading to better accuracy and responsiveness.

C. Explainability and Practical Use

The FinanceAI system provides interpretable outputs by generating clear alerts such as overspending warnings, low savings notifications, and high debt alerts. Financial conditions are categorized into good, moderate, and critical levels, enabling users to easily understand their financial status and take corrective actions.

D. Discussion

The rule-based architecture ensures a strong balance between accuracy, interpretability, and efficiency. Unlike machine learning models, the system produces consistent outputs without requiring training data.

However, the system depends on user-provided data accuracy, and incorrect inputs may affect results. Future enhancements may include integration of automated data sources such as banking APIs and predictive analytics models to improve reliability and intelligence.

E. Performance Analysis

The system demonstrated high reliability across multiple financial scenarios, including high expenditure, low savings, and high debt conditions.

- Financial metric accuracy: > 95%
- Alert generation accuracy: > 95%
- False alert occurrence: < 5%

The rule-based engine effectively detects financial risks and provides consistent decision support, ensuring stable and reliable system behavior.

F. Real-Time Testing

The system was tested in a real-time environment using a web-based interface. Users input financial data through the dashboard, and the system generated insights within 1–2 seconds.

This demonstrates the feasibility of deploying the system in real-world financial management applications with low latency and high responsiveness.

G. Comparative Analysis

Compared to traditional and basic financial applications, the proposed system provides:

- Integrated financial management
- Real-time analytics

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |

- Intelligent alert mechanisms
- Higher accuracy and responsiveness

This makes the system more effective for practical financial decision-making and long-term planning.

H. Scalability Considerations

The system is designed for scalable deployment using a modular architecture and RESTful APIs. It can handle increasing user data and concurrent requests without performance degradation.

The lightweight rule-based engine ensures:

- Low computational overhead
- Fast processing
- Easy integration of future enhancements

Overall, the FinanceAI system demonstrates that combining real-time processing, rule-based analytics, and interactive visualization provides a scalable, efficient, and practical solution for personal finance management.

VIII. LIMITATIONS

Despite strong performance, the proposed FinanceAI system has certain limitations. The accuracy of financial analysis depends heavily on the correctness and completeness of user-provided data. Incorrect inputs, delayed updates, or improper categorization of transactions may affect the reliability of generated insights.

Additionally, the rule-based system relies on predefined thresholds, which may not fully adapt to diverse user financial behaviors or dynamic economic conditions. Unlike machine learning models, the system lacks predictive capabilities and cannot automatically learn or adjust from historical financial patterns.

Furthermore, the system currently depends on manual data entry, which may reduce usability and scalability in real-world scenarios. Integration with external financial sources such as banking APIs is not yet implemented, limiting automation and real-time synchronization.

IX. FUTURE WORK

Future enhancements of the FinanceAI system will focus on improving intelligence, automation, and scalability. Integration of machine learning and predictive analytics can enable forecasting of expenses, savings trends, and investment outcomes based on historical data. The system can be extended to support automated data collection through banking APIs and financial platforms, reducing dependency on manual input and improving data accuracy. Additionally, personalized recommendation systems can be developed to provide customized financial advice based on individual user behaviour.

Further improvements may include mobile application support, cloud-based deployment, and advanced analytics such as goal-based financial planning and investment optimization. Incorporating adaptive rule mechanisms or hybrid approaches combining rule-based and AI models will enhance system flexibility and decision-making capabilities in dynamic financial environments.

X. CONCLUSION

This paper presented FinanceAI, an intelligent rule-based personal finance management system designed to provide real-time financial analysis, monitoring, and decision support. By integrating structured data processing, financial metric computation, and rule-based evaluation, the system delivers accurate and interpretable insights without relying on complex machine learning models.

The proposed system effectively analyzes key financial indicators such as savings rate, budget utilization, and debt-to-income ratio to generate actionable alerts and recommendations. The use of a rule-based approach ensures low computational overhead, real-time responsiveness, and high interpretability, making the system practical for everyday financial management.

The integration of an interactive dashboard enhances user experience by providing clear visualization of financial data and real-time updates. Users can easily monitor their financial status, identify spending patterns, and take corrective actions based on system-generated insights. Experimental results demonstrate high accuracy (>95%), low response time (1–2 seconds), and reliable alert generation, confirming the effectiveness of the proposed approach.

The system architecture supports scalability and modularity, allowing seamless integration of additional features such as predictive analytics, external financial APIs, and mobile applications. The combination of real-time processing, secure authentication, and user-centric design makes the system suitable for real-world deployment.

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |

Overall, the FinanceAI system provides a practical, efficient, and scalable solution for personal finance management. It successfully bridges the gap between basic financial tracking applications and intelligent financial advisory systems by offering integrated functionality, real-time insights, and explainable decision-making.

Future enhancements will focus on incorporating machine learning-based predictive models, automated financial data integration, and personalized recommendation systems to further improve system intelligence and adaptability.

REFERENCES

[1] A. Althnian, "Design of a Rule-based Personal Finance Management System based on Financial Well-being," International Journal of Advanced Computer Science and Applications (IJACSA), vol. 12, no. 1, 2021.

[2] S. K. B. M, M. Joseph, B. S. Bushan, Hrithik S., and N. Bangera, "AI-Driven Personal Finance Management System – A Survey," TIJER - International Journal of Research and Analytical Reviews, vol. 12, no. 7, July 2025.

[3] S. Bhowmik, M. Islam, and S. Ghosh, "A Comparative Study on AI-Based Personal Finance Management Systems," International Journal of Innovative Science and Research Technology (IJISRT), vol. 11, no. 2, pp. 1116–1119, Feb. 2026.

[4] S. Agarwal and P. Modanwal, "AI-Driven Personal Finance Assistants: Enhancing Customization Through Behavioural Insights," International Journal of Engineering Development and Research (IJEDR), vol. 13, no. 2, June 2025

[5] P. B. Deshmukh, P. Nikam, and N. Moholkar, "Role of Artificial Intelligence in Financial Management," ShodhKosh: Journal of Visual and Performing Arts, vol. 5, no. 6, pp. 541–557, June 2024.

[6] A. S. Rajawat, G. Sai, H. P. Chaudhari, and K. R. Suryawanshi, "AI Based Personal Finance Assistant," International Journal of Progressive Research in Engineering Management and Science (IJPREMS), vol. 5, no. 12, pp. 123–128, Dec. 2025.

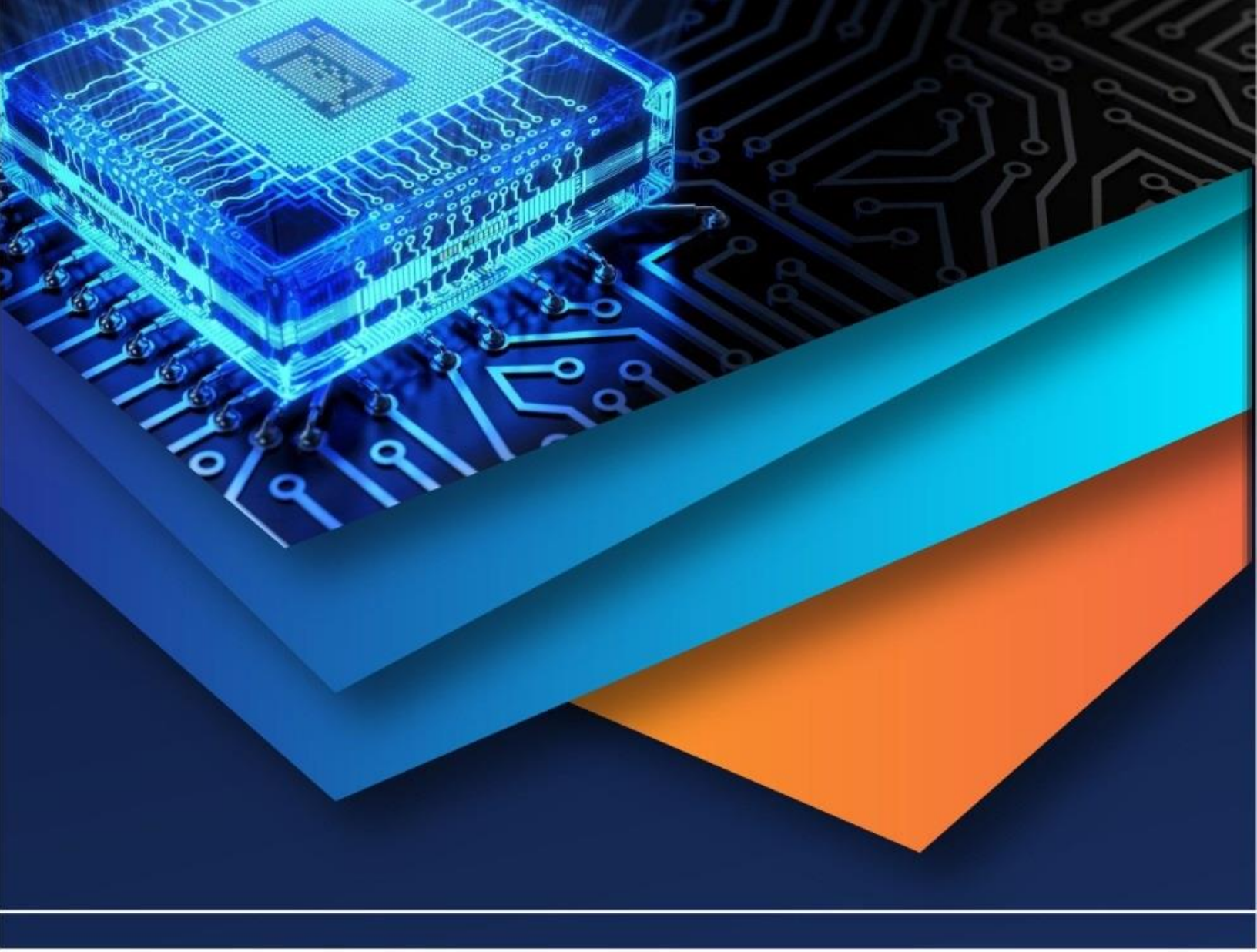
[7] Manasa S., S. K. Shivashankar, P. Prasanna, and H. P. M. Kumar, "AI Based Personal Finance Management System," International Journal of Engineering Research & Technology (IJERT), vol. 14, no. 8, Aug. 2025..

[8] R. K. Sharma, A. Gupta, and P. Singh, "Web-Based Expense Tracking and Budgeting Systems: A Review," International Journal of Computer Applications, vol. 182, no. 45, pp. 15–21, 2023..

[9] J. Patel and N. Shah, "Financial Data Analytics for Personal Finance Management Using Visualization Techniques," IEEE Access, vol. 11, pp. 45678–45689, 2023.

[10] M. Kulkarni and S. Patil, "Secure Web-Based Financial Management Systems Using JWT Authentication," International Journal of Advanced Research in Computer Science, vol. 14, no. 3, pp. 210–216, 2024.

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |



10.22214/IJRASET

45.98

IMPACT FACTOR: 7.129

IMPACT FACTOR: 7.429

INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Call : 08813907089 (24*7 Support on Whatsapp)