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MUTUAL FUND INVESTMENT ASSISTANT

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ABSTRACT—

The Mutual Fund Investment Assistant is a smart financial assistance system designed to help users make informed mutual fund investment decisions. The system provides guidance based on the user's investment amount, financial goals, risk level, and investment duration. It supports both SIP (Systematic Investment Plan) and lump-sum investments and provides estimated returns using suitable calculation methods. The system can also compare different mutual fund options and present important information in a simple and understandable format. By using technologies such as Fast API, machine learning, and a webbased interface, the proposed system aims to make mutual fund investment easier, more accessible, and user-friendly, especially for beginners and users with limited financial knowledge.

Keywords—Mutual Fund, Investment Assistant, SIP, Lump Sum, NAV, Risk Analysis, Portfolio Management, Investment Planning, Financial Analysis, Returns Calculation, Investor, Fund Selection, Wealth Management, Machine Learning.

1. Introduction

In today's financial environment, investment has become an important part of achieving personal and long-term financial goals. Among various investment options, mutual funds have become popular because they provide opportunities to invest in a diversified portfolio managed by professional fund managers. However, for beginners and inexperienced investors, understanding mutual funds and selecting a suitable investment can be difficult. Concepts such as NAV, SIP, lump-sum investment, risk, returns, fund categories, expense ratio, and investment duration can be confusing. The Mutual Fund Investment Assistant is a software-based system developed to simplify the process of mutual fund investment. It helps users understand different mutual fund schemes and provides useful information for making informed investment decisions.

The system can consider important factors such as the user's investment amount, financial goals, risk tolerance, expected returns, and investment period while providing suitable investment guidance. One of the important features of the system is the SIP calculator, which helps users estimate the future value of their regular monthly investments. It can also provide a lump-sum investment calculator to estimate the potential growth of a one-time investment over a selected period. These features help users understand how their money may grow through different investment strategies. The system can also provide mutual fund comparison, allowing users to compare funds based on parameters such as historical performance, risk level, returns, NAV, fund category, and other relevant factors. This makes it easier for users to identify investment options according to their requirements.

2. Literature Survey

AI-Based Investment Assistance: Recent studies explore how Artificial Intelligence and Machine Learning help investors select suitable mutual funds, predict market trends, and manage investment risks. Financial Literacy: Research highlights that investors with better financial knowledge can make more informed decisions about mutual fund schemes, SIPs, and lump-sum investments. Risk and Return Analysis: Studies focus on evaluating mutual funds based on historical returns, risk levels, NAV, and fund performance to help investors choose suitable schemes. Robo-Advisory Systems: Research examines automated investment platforms that provide personalized recommendations based on users' financial goals, investment amounts, and risk tolerance. SIP and Lump-Sum Investment: Existing studies compare systematic investment plans and lump-sum investments to help investors understand different investment approaches.

2.1 Authors and Fundings –

	Author / Authority	Funding / Role
1	SEBI	Regulates mutual funds in India.
2	AMFI	Promotes industry standards and awareness.
3	Mutual Fund Companies	Manage investors' money.
4	Investors	Provide money to mutual funds.
5	Asset Management Company (AMC)	Invests money in different assets.
6	Banks	Help distribute mutual fund schemes.
7	Stock Market	Provides opportunities to invest in shares.
8	Government	Provides rules and regulations.
9	Financial Advisors	Guide investors in choosing funds.

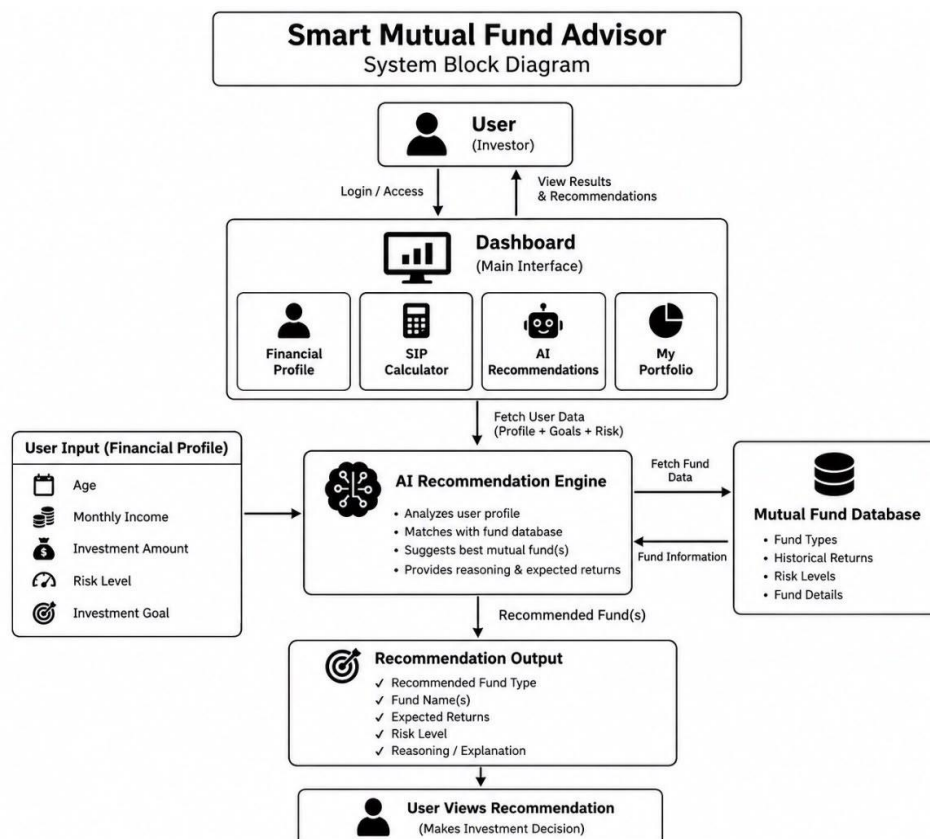
3. Objectives

The main objective of the Mutual Fund Investment Assistant is to help users make better and informed mutual fund investment decisions through simple, personalized, and user-friendly guidance.

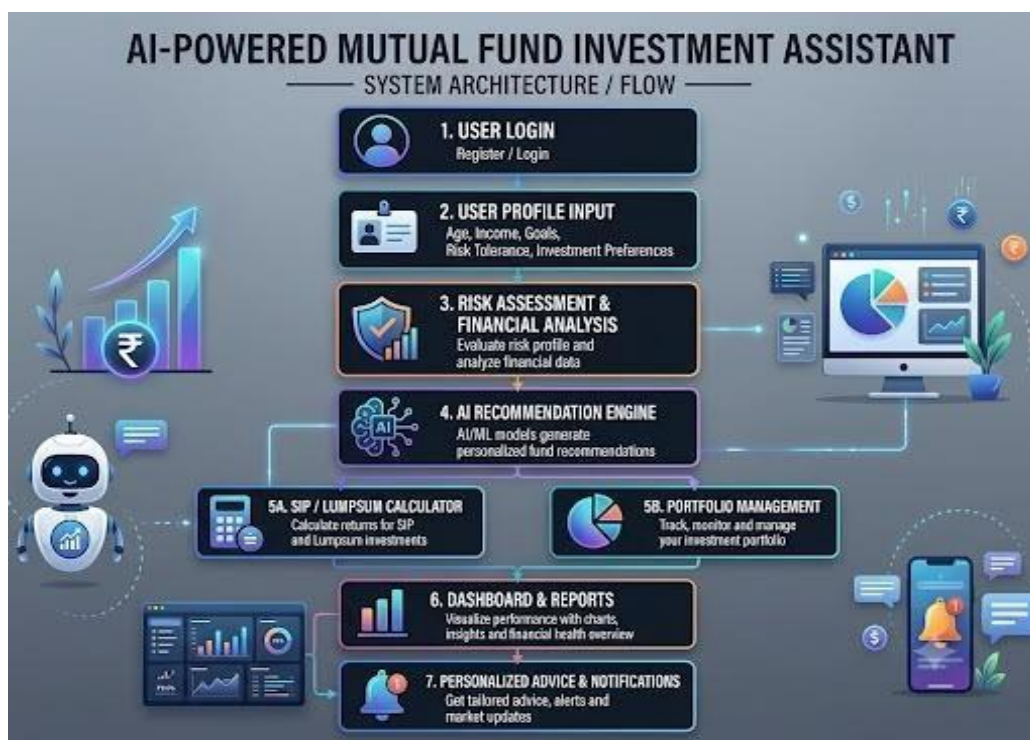
Key Objectives:

- To provide personalized mutual fund recommendations based on the user's financial goals risk level.
- To calculate SIP and lump-sum investment returns easily.
- To help users understand different mutual fund schemes and categories.
- To compare funds based on factors such as returns, risk, NAV, and performance.
- To assist users in selecting investments according to their financial goals and investment duration.
- To provide a simple platform suitable for both beginner and experienced investors.
- To improve financial awareness and investment planning among users.
- To reduce the complexity involved in choosing and managing mutual fund investments.

4. Block Diagram



5. Flowchart



6. Methodology

The methodology of the Mutual Fund Investment Assistant involves collecting and analyzing relevant mutual fund data to help users make better investment decisions. First, the system collects information such as NAV, historical returns, risk level, expense ratio, fund category, and investment duration. The collected data is then cleaned and organized to remove errors and missing values. Users provide their investment amount, investment period, expected return, and risk preference. Based on these inputs, the system calculates the estimated returns for SIP and lump-sum investments. It then analyzes different mutual fund options according to their performance, risk, and suitability. Finally, the system provides suitable investment suggestions along with estimated returns and other important information in a simple and user-friendly format.

Key Steps :

1. Understanding Investor Requirements
2. Risk Assessment
3. Fund Selection
4. Investment Planning
5. Portfolio Diversification
6. Regular MonitoringInvestor Support and Guidance
7. Investors Support and Guidance

7. RESULT AND DISCUSSION

The Mutual Fund Investment Assistant successfully provides users with useful information and guidance for mutual fund investment. The main results of the project are:

- Personalized Recommendations – Suggests suitable mutual fund categories based on the user's risk level and financial goals.
- SIP Calculator – Calculates the estimated maturity amount and returns for monthly SIP investments.
- Lump-Sum Calculator – Estimates the future value of a one-time investment.
- Risk Analysis – Helps classify investments according to low, moderate, or high risk.
- Fund Comparison – Allows users to compare funds based on returns, NAV, risk, and other factors.
- Easy-to-Understand Results – Presents investment calculations and recommendations in a simple format.
- Better Decision Making – Helps users understand different investment options and make more informed investment decisions.

The Mutual Fund Investment Assistant was developed to simplify the process of selecting and planning mutual fund investments. The system considers important factors such as investment amount, investment duration, financial goals, and risk level to provide suitable investment guidance. The SIP and

lump-sum calculators help users understand the possible growth of their investments over time. The fund analysis and comparison features make it easier to understand differences between various mutual fund options.

8.Outputs :

• Create Account -

• Login -

Show Dashboard -

The dashboard features three main sections at the top:

- AI Recommendations:** A card with a robot icon and text: "Get mutual fund recommendations based on your risk level and investment goals." with a "Get Recommendations" button.
- My Portfolio:** A card showing "Total Investments: 1" and "Total Amount: ₹6,000.00" with a "View Portfolio" button.
- My Investments:** A central section titled "YOUR INVESTMENT PORTFOLIO" with the subtitle "Your investments, organized in one smart place." It shows a card for "HDFC Balanced Advantage Fund" (Flexi Cap Fund) with an investment progress bar, "INVESTED AMOUNT: ₹6,000", "TIME PERIOD: 5 Years", and a "Delete" button.

Financial Profiles-

The "Financial Profile" form includes the following sections:

- Personal Information:** A field for "AGE" with the value "37".
- Financial Information:** Fields for "MONTHLY INCOME" (60000), "MONTHLY EXPENSE" (40000), "INVESTMENT AMOUNT" (5000), and "INVESTMENT PERIOD" (12).
- Investment Preferences:** Fields for "INVESTMENT TYPE" and "RISK LEVEL".

• SIP Calculator-

The "SIP Calculator" form includes:

- Dropdown menus for "SIP" and "Moderate Risk".
- A text input field for "INVESTMENT GOAL" with the value "for buy my dream car".
- A large blue button labeled "Save Financial Profile →".

SIP Calculator

Smart Planning

Build your wealth

See how your monthly investment can grow over time.

MONTHLY INVESTMENT

EXPECTED ANNUAL RETURN

INVESTMENT PERIOD

₹ 5000

12 %

10 Years

Calculate SIP →

YOUR PROJECTION

Investment Summary

₹

Total Investment

₹6,00,000

₹

Estimated Returns

₹5,61,695

₹

Future Value

₹11,61,695

AI Mutual Fund Recommendation-

AI INVESTMENT PLANNER

Smart Planning

AI Mutual Fund Recommendation

Get personalized mutual fund suggestions based on your financial profile.

Your Financial Profile

Our recommendation engine will use these saved details.

AGE

37 Years

MONTHLY INCOME

₹60,000

MONTHLY EXPENSE

₹40,000

INVESTMENT AMOUNT

₹5,000

INVESTMENT TYPE

SIP

RISK LEVEL

Moderate

INVESTMENT GOAL

for buy my dream car

INVESTMENT PERIOD

12 Years

Generate AI Recommendations →

AI ANALYSIS

Recommended Mutual Funds

Recommendations generated using your saved financial profile.

2 Funds

₹

Recommended

Parag Parikh Flexi Cap Fund

Fund Type

Flexi Cap Fund

Risk Level

Moderate

Why this is recommended

Suitable for diversified long-term investment goals.

LIVE NAV

Current Fund Data

LIVE

Refresh

CURRENT NAV

₹80.37710

NAV DATE

01-10-2026

₹

Recommended

HDFC Balanced Advantage Fund

Fund Type

Hybrid Fund

Risk Level

Moderate

Why this is recommended

Combines equity and debt-oriented allocation.

LIVE NAV

Current Fund Data

LIVE

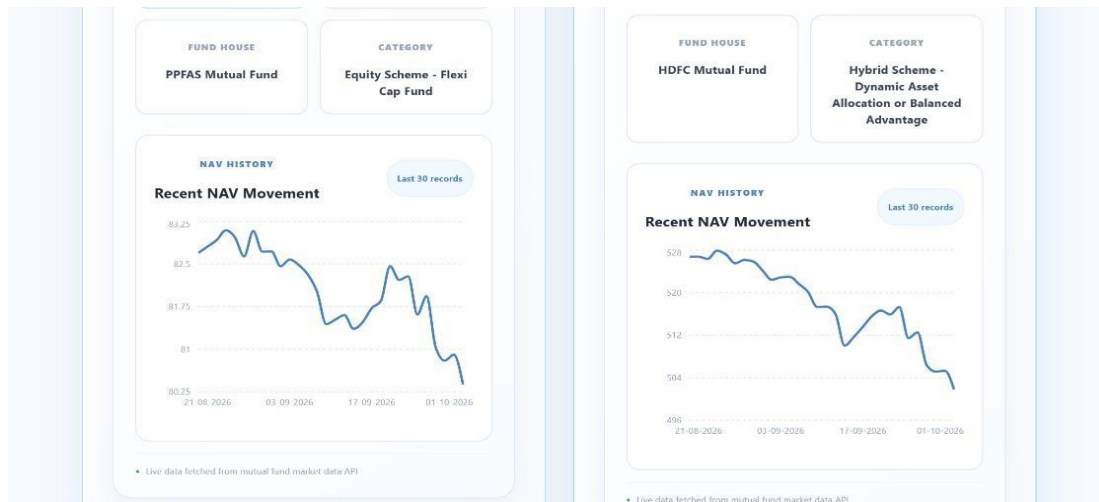
Refresh

CURRENT NAV

₹501.82200

NAV DATE

01-10-2026



My Portfolio –

The screenshot shows the 'My Portfolio' dashboard. At the top, there's a header with '+ INVESTMENT PLANNER' and 'My Portfolio'. Below the header, there's a sub-header 'Track and manage all your mutual fund investments in one place.' and a '+ Smart Portfolio' button. The dashboard features four summary cards: 'TOTAL INVESTED ₹6,000', 'CURRENT VALUE ₹24,479.12', 'PROFIT / LOSS +₹18,479.12', and 'TOTAL INVESTMENTS 1'. Below these cards is an 'Add New Investment' section with a '+ Add New Investment' button and the text 'Add your mutual fund investment to your portfolio.' The form includes fields for 'FUND NAME' (e.g., Parag Parikh Flexi Cap Fund), 'FUND TYPE' (Select Fund Type), 'INVESTMENT TYPE' (Select Investment Type), 'INVESTMENT AMOUNT' (₹ 5000), 'PURCHASE NAV' (₹ e.g. 125.50), and 'DURATION' (5 Years).

9. CONCLUSION :

The Mutual Fund Investment Assistant provides a simple and user-friendly platform to help investors make informed investment decisions. It analyzes factors such as investment amount, risk level, financial goals, NAV, returns, and investment duration to provide suitable mutual fund suggestions. The system also helps users calculate SIP and lump-sum returns, making investment planning easier.

Overall, the project reduces the complexity of mutual fund selection and improves financial awareness. It can be further enhanced by adding real-time market data, AI-based personalized recommendations, portfolio tracking, and advanced risk analysis.

10. ACKNOWLEDGEMENT

I would like to express my sincere gratitude to everyone who supported me in completing my project titled “Mutual Fund Investment Assistant.” I am thankful to my project guide and faculty members for their valuable guidance, encouragement, and support throughout the development of this project. Their suggestions helped me understand the concepts and complete the project successfully.

I would also like to thank my college and department for providing the necessary resources and learning opportunities. I am grateful to my friends and family for their continuous motivation and support. Finally, I would like to thank everyone who directly or indirectly contributed to the successful completion of this project.

9. Future Scope

The AI-Powered Mutual Fund Assistance System has significant future scope in financial planning, investment management, and personalized financial guidance. The system can be enhanced with advanced technologies to help users make informed investment decisions.

1. AI-Based Personalized Recommendations

The system can use Artificial Intelligence (AI) and Machine Learning (ML) to recommend mutual funds based on users' income, financial goals, investment duration, and risk tolerance.

2. Real-Time Market Updates

The system can integrate real-time market data to provide updates on mutual fund NAVs, market trends, and fund performance.

3. Advanced Risk Analysis

Future versions can use predictive analytics to evaluate investment risks and help users select funds that match their risk profiles.

4. Automated SIP Management

The system can provide automated SIP planning, installment reminders, investment tracking, and SIP return calculations to simplify regular investing.

5. Portfolio Optimization

The system can analyze users' investment portfolios and suggest diversification strategies to balance risk and potential returns.

6. AI Chatbot Assistance

An AI-powered chatbot can answer users' questions about mutual funds, explain investment concepts, and provide personalized educational guidance 24/7.

7. Goal-Based Financial Planning

The system can help users plan investments for future goals, such as higher education, purchasing a house, retirement, or building an emergency fund.

11. REFERENCES :

Based on recent financial market analyses and mutual fund industry reports from 2024 to 2026, the landscape for mutual fund investments has been largely shaped by strong retail participation, a preference for diversified strategies, and resilience against global volatility. Here is a summary of the key trends and investment assistance themes highlighted by market experts for this period.

1. Key Market Trends & Investor Behavior (2024–2026)

- **The Power of SIPs:** Systematic Investment Plans (SIPs) have continued to reach record highs. This consistent inflow from retail investors has acted as a significant cushion against market volatility and sharp sentiment swings.
- **"Buy the Dip" Mentality:** Instead of panic-selling during market corrections, retail investors have increasingly used these dips as buying opportunities, maintaining positive equity inflows even in falling markets.
- **Active Over Passive:** While passive investing (Index Funds and ETFs) continues to grow, active investing remains highly dominant. Investors are heavily relying on the expertise of fund managers in flexi-cap, mid-cap, and multi-cap funds to navigate changing market cycles.
- **Shift to Growth:** There has been a noticeable shift in risk appetite, with money frequently moving out of traditional debt instruments and into equity-oriented schemes in pursuit of long-term value creation.

2. Fund Categories Gaining Traction

- **Market commentators and fund houses** have pointed to a few specific categories that have seen increased traction
- **Flexi-Cap & Multi-Cap Funds:** These are highly favored because they allow fund managers the flexibility to adjust exposure across large,

mid, and small-cap stocks depending on market valuations and growth momentum. Examples frequently highlighted in 2026 reports include the Parag Parikh Flexi Cap Fund and various multi-cap offerings.

- Multi-Asset Allocation Funds: With global geopolitical tensions and elevated commodity prices, funds that distribute investments across equity, debt, and commodities (like gold and silver) have grown significantly as investors seek built-in risk mitigation.

3. Expert Considerations for Choosing a Fund

- When looking for investment assistance and selecting the right mutual funds, financial advisors emphasize the following frameworks rather than chasing short-term returns
- Align with Goals and Horizon: Equity funds are recommended for long-term wealth creation (5+ years), while debt or liquid funds (e.g., Kotak Liquid Fund) are suited for short-term parking of funds and capital preservation.
- Evaluate the Fund Manager: For actively managed funds, the experience and track record of the fund manager across different market cycles is critical.
- Check Financial Ratios: Experts advise looking at risk-adjusted return metrics like Alpha (outperformance against the benchmark) and Beta (volatility) rather than just absolute returns.