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**FinGuide AI: Intelligent Investment Planning Assistant**

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Peer Review Information	Abstract
<p><i>Submission: 16 March 2026</i></p> <p><i>Revision: 03 April 2026</i></p> <p><i>Acceptance: 26 April 2026</i></p>	<p>Many people in India face problems when it comes to choosing the right investment. There are so many options like stocks, mutual funds, gold, real estate, government savings schemes, and even new things like cryptocurrency. Because of this variety, most people feel confused and struggle to decide where to put their money. Some end up taking too much risk, while others miss good opportunities because they do not have proper guidance. This creates a real need for a simple tool that can guide people by showing the best options based on their Amount, risk level, Duration.</p>
<p><b>Keywords</b></p> <p><i>Investment Planning, Financial Recommendation System, Risk Analysis, Portfolio Management, Wealth Management</i></p>	

**Introduction**

In today's world, personal financial planning has become an essential need for every individual. With the growing number of investment options such as stocks, mutual funds, gold, real estate, insurance schemes, and retirement funds, most people find it confusing to choose the right investment strategy. The lack of financial knowledge often leads to wrong decisions, which may result in losses or missed opportunities. Therefore, there is a strong need for a digital solution that can guide individuals in selecting the best investment options based on their financial goals, income, and risk tolerance.

The motivation behind choosing this topic comes from the fact that a majority of people, especially young earners and middle-class families, struggle with financial planning. Many individuals either rely on word-of-mouth advice

or follow random investment trends without understanding the risks and returns. By creating a tool that combines real financial data, machine learning models, and simple recommendations, we can help users make better financial decisions. The aim is to encourage smart investment habits, reduce financial risks, and build long-term wealth for users in a structured way.

There are already several financial applications available in the market such as Groww, Zerodha, Paytm, ET Money and FundsIndia, which allow users to invest in different options. However, focuses mainly on mutual funds and insurance products, and FundsIndia provides advisory services centered around SIPs and equities.

Our project, Capital Guide

- Covers 15+ Indian investment options (power systems, healthcare sectors)
- 5+ Investment types (stocks, Bonds,

- Mutual Fund, Real Estate)
- Machine Learning Models to recommend personalized strategies
- Real Gold prices API, NIFTY-50, Sensex updates
- Stock Market Prediction Model

## Literature Review

### Paper 1:

#### A Recommender System For Investing In Early-Stage Enterprises

- **Focus:** This paper addresses the challenge investors face when deciding which early-stage startups to fund, often hindered by limited information and "information overload".
- **Methodology:** The authors conducted interviews with prominent investors to establish five key system requirements. They then designed and tested several recommendation algorithms, including knowledge-based, content-based, collaborative filtering, and hybrid approaches.
- **Key Findings:** The study found that **trust-based recommendations** (following the investments of reputable "inner circle" investors) were the most effective. Surprisingly, simple collaborative filtering outperformed the more complex knowledge-based models in this specific domain.
- **Goal:** To create a prototype system that assists Business Angels and Venture Capital funds in filtering potential investments.



Figure 1. Investment Flow Chart

#### • Conclusion

This paper presented a design study of recommendation approaches in the domain of investing in early-stage enterprises. A detailed requirements analysis found specific desiderata for a system, in clouding the need to respect

investor profiles, learn from past decisions, and propagate trust among investors. An evaluation scenario demonstrates that simple collaborative filtering approaches, and especially a trust-based one, is more effective than knowledge- and content-based approaches.

### Paper 2:

#### Analysis of Stock Market Investment Strategies

- **Focus:** This undergraduate report investigates what makes an investor profitable by comparing two common trading styles: **day trading** and **swing trading**.
- **Methodology:** The author conducted a 3-week simulation with a hypothetical \$100,000 portfolio, executing trades in various high-profile stocks like Apple, Google, and Microsoft.
- **Key Concepts:**
  - **Day Trading:** A fast-paced strategy where stocks are bought and sold within the same day to capitalize on daily fluctuations.
  - **Financial Literacy:** The report provides a foundation on different investment vehicles, including stocks, bonds, mutual funds, and certificates of deposit (CDs).
- **Conclusion:** The project aimed to use the simulation results to build "investing power" and facilitate better anticipation of market trends for future real-world applications.



Figure 2. Investing Indicator

### Paper 3:

#### AI-Enhanced Portfolio Management: Leveraging Machine Learning (2024)

- **Focus:** This 2024 paper explores how Artificial Intelligence (AI) and Machine Learning (ML) have revolutionized modern investment strategies by replacing or complementing traditional human-driven models.
- **Core Technologies:** The study highlights techniques such as **reinforcement learning**, **natural language processing (NLP)**, and **sentiment analysis** (e.g.,

analyzing social media and news) to predict market trends.

- **Advantages:** AI systems excel at processing "alternative data" and making real-time adjustments to portfolios, which helps in optimizing asset allocation and risk management more proactively than traditional models like Value at Risk .
- **Ethical Considerations:** The paper emphasizes the need for transparency and regulatory oversight to address potential biases and "overfitting" in AI models.

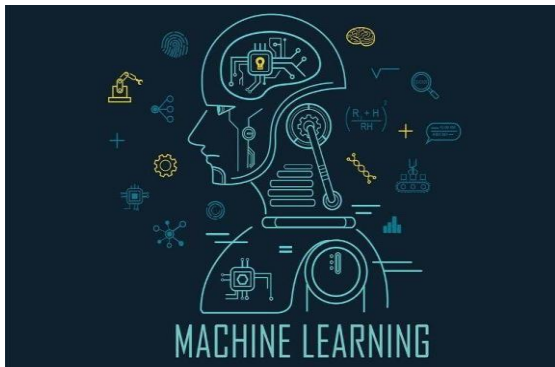


Figure 3. M.L

### Block Diagram

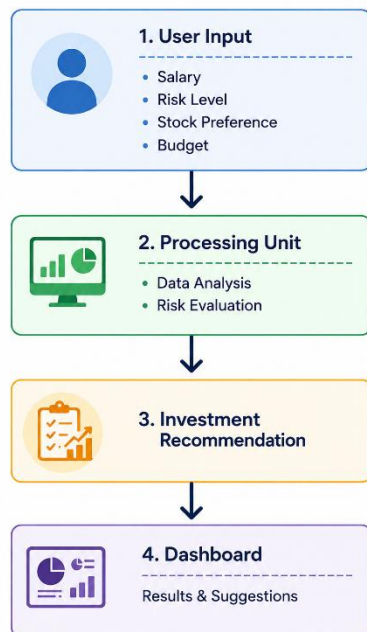


Figure 4. Project Workflow

### Future Direction

Our project focuses on providing investment suggestions based on the user's monthly income, financial inputs, and risk level. While the system works effectively for basic recommendations, there are several improvements that can be made to enhance its accuracy, usability, and real-world application.

### 1. Goal-Based Financial Planning

In future, our project can be improved by allowing users to set specific financial goals such as buying a house, planning for education, or retirement. Based on these goals, the system can suggest customized investment strategies and monthly savings plans to help users achieve their targets efficiently.

### 2. Advanced Risk Analysis System

Currently, the system uses basic risk categories like low, medium, and high. This can be enhanced by adding a detailed questionnaire to better understand the user's financial behavior and risk tolerance, resulting in more personalized and accurate investment suggestions.

### 3. Real-Time Market Data Integration

The project can be upgraded by integrating real-time data from financial markets such as stocks, mutual funds, and other investment options. This will help in providing more accurate and up-to-date recommendations to users.

### 4. Data Visualization and Future Prediction

Future enhancement includes adding graphical representations such as charts and growth projections. This will help users clearly understand how their investments will grow over time and compare different investment options easily.

### 5. Web and Mobile Application Development

Our system can be developed into a full web or mobile application where users can create accounts, save their data, and track their financial progress over time. This will make the system more user-friendly and accessible.

### 6. AI-Based Smart Recommendation System

In future, we can integrate Artificial Intelligence and Machine Learning techniques to make the system smarter. It can learn from user behavior and provide dynamic, automated, and more accurate financial advice.

### 7. Tax Planning and Optimization

The system can also include tax-saving investment options and provide suggestions based on government schemes. This will help users not only grow their wealth but also reduce their tax burden effectively.

### Conclusion

Our project presents a smart and user-friendly system that provides investment suggestions based on the user's monthly income, financial inputs, and risk level. It helps users make better financial decisions by guiding them toward suitable investment options according to their needs and capacity. The system simplifies complex financial planning and makes it accessible even for users with limited financial knowledge.

Our project serves as a strong foundation for building an intelligent financial advisory platform. With further improvements such as real-time data integration, advanced analytics, and AI-based recommendations, it can be developed into a powerful tool for personal financial management and long-term wealth planning.

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