

# MAJOR PROJECT - I

## SYNOPSIS

For  
Cloud Based Intelligent Financial Analytics App : FinVista

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# **Synopsis Report**

## **Cloud Based Intelligent Financial Analytics App : FinVista**

### **Abstract**

In the ever-evolving landscape of finance, data-driven insights are paramount for informed decision-making. This project introduces a cutting-edge Cloud-Based Financial Analytics App designed to empower individuals and organizations with the tools they need to harness the power of financial data. Our application leverages the scalability and flexibility of cloud computing to provide users with real-time access to comprehensive financial data analysis.

Through an intuitive user interface, users can securely upload, store, and analyze financial data, enabling them to gain valuable insights into their financial performance and make data-informed decisions. Key features include advanced data visualization, predictive modeling, and customizable reporting tools. Additionally, the app prioritizes data security and compliance, ensuring the confidentiality and integrity of financial information. With the Cloud-Based Financial Analytics App, users can unlock the potential of their financial data, driving smarter financial strategies and positioning themselves for success in an increasingly dynamic financial landscape.

**Keywords:** Tracking System, Data Analysis, Data Visualization, Cloud Computing

### **1. Introduction**

A financial analytics tool, often known as an expense tracker, could help to maintain an accurate accounting of income and expenses. In India, a large number of individuals rely on fixed incomes and realize that they run out of money around the end of the month. It might be risky for people to overspend without figuring out the consequences. We can keep track of how much money you spend every day and on what by using a daily spending tracker. One of the best strategies to restrict your spending and impose some structure is to do this.

This application gives you advantages like helping you prioritize your spending, recognize bad spending patterns, spot fraud, take charge of your finances, and save and invest. An AI-based expenditure tracker helps users automatically create budgets, manage spending, and save money. It offers wise suggestions and guidance on how to cut costs. Salary advances,

savings accounts, cash back rewards, and cost management advice are some of the features offered by this program. The user experience and user interface are simple to comprehend and utilize. This program syncs with the user's accounts and examines their spending habits to offer intelligent concepts and suggestions as an AI financial assistant. It will automatically suggest the best options after sufficient data and details regarding accounts and expenses have been gathered for employing data analysis and visualizations for reducing costs and effectively saving money. This design involves receiving data input from many sources, then storing it in a safe place like a database or cloud storage. The essential information is then extracted from the data using machine learning techniques, such as pattern recognition, fraud detection, and expenditure classification. The users are then given access to the processed data through a user interface, where they may see reports, visualizations, and alerts. Additionally, the system has business logic, which manages all of the business rules.

## **2. Literature Review**

The technology, called Expense Tracker - A Smart Approach to Track Everyday Expense, 4809, is created by Hrithik Gupta and his colleagues. They designed a daily cost management system with the goal of easily and effectively keeping track of workers' daily spending through the use of a computerized system that reduces paperwork and organizes information.

Analytical expense management system is created by [Zeki Bozkus and colleagues]. They gather data on expenses and may suggest aggregated numbers. The outcome is comparable to what an excel sheet offers. Dr. Geetha and crew, [system, 1934-7197].

[Iota Kaousar Nassr], under the direction of Robert Patalano, both working for the OECD Directorate for Financial and Enterprise Affairs' Division of Financial Markets. The beneficial editorial was given by [Pamela Duffin and Ed Smiley].

Analytical expense management system is created by [Zeki Bozkus and colleagues]. They gather data on expenses and may suggest aggregated numbers. The outcome is comparable to what an excel sheet offers. Dr. Geetha and crew, [system, 1934-7197].

In 1955, [McCarthy and colleagues] proposed a fundamental concept that served as the foundation for AI research: The goal of AI is to give robots traits that, if displayed, would be human-like.

The aim of artificial intelligence (AI) is to give computers traits that, if displayed by a person, would be regarded as intelligent (McCarthy et al. 1955, p. 11).

According to AI researchers (e.g., Abdel-Karim et al. 2021; Cao 2020, 2022; Goodell et al. 2021; Martin 2019; Rai et al. 2019; Zheng et al. 2019), owing to the so-called "black-box" character of the majority of AI-based systems, practical implementation lags and fails to realize the full potential of AI implementation.

[Rzpeka and Berger (2018)] referenced 91 main articles in total, drawn from a variety of periodicals and conferences. While this study examines how it is defined and provides value, it focuses on the setting of individual user contact with AI systems in IS.

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[Hofmann et al. (2019)] focused on the years 2012 to 2018 since that is when they were especially interested in the implications of AI and ML in the context of the radiology value chain.

### **3. Problem Statement**

In an increasingly digital and mobile-driven world, individuals and businesses face a growing need for an efficient, accessible, and secure solution to track and manage expenses. Existing expense tracking methods often involve manual data entry, lack real-time updates, and may not offer the convenience of cloud-based access.

To address these challenges, we aim to develop a Cloud-Based Expense Tracker App using Flutter, providing users with a modern, user-friendly, and secure tool for seamless expense management. This app will enable users to effortlessly record, analyze, and access their financial data, ultimately leading to improved financial control and informed decision-making.

### **4. Objectives of the Cloud-Based Expense Tracker App**

- **Effortless Expense Tracking:** Develop an intuitive and user-friendly interface that allows users to effortlessly record and categorize their expenses.
- **Real-Time Data Updates:** Provide users with real-time updates on their financial transactions and spending patterns to enable informed financial decision-making.

- **Secure Cloud Integration:** Implement robust security measures to ensure the safe storage and transmission of financial data to and from the cloud.
- **Cross-Platform Accessibility:** Create a cross-platform app using Flutter, ensuring accessibility from various devices and operating systems, including iOS and Android.
- **Data Analysis and Insights:** Enable users to gain valuable insights into their financial behaviour through data visualization and analysis tools.
- **Expense Management Features:** Offer features such as expense categorization, budget tracking, and expense history for comprehensive financial management.
- **User Authentication:** Implement secure user authentication to protect user accounts and financial data.
- **Data Export and Reporting:** Allow users to export their financial data and generate customized reports for personal or business use.
- **Offline Functionality:** Provide offline functionality to ensure users can record expenses even when they are not connected to the internet, with data synchronization when online.

## 5. Methodology

### Phase 1: Requirement analysis on problem statement

- Set clear goals and identify needed features.
- Understand your target audience.
- Study the competition and industry trends.
- Validate market demand.

### Phase 2: Define the project scope

- Create a project plan
- Choose cloud platform and technology stack.

### Phase 3: Design App Architecture

- Choose a suitable platform for making architecture for the app
- Now we design and create a user friendly architecture through the project scope

### Phase 4: Design and Development

- Our project development entity relevant data sources (financial data, market data, user data) after the requirement analysis and defined the project scope phase is over. Now develop data integration pipelines to collect and process data. Implement data quality checks and ensure data security. We use Machine Learning and AI Model for

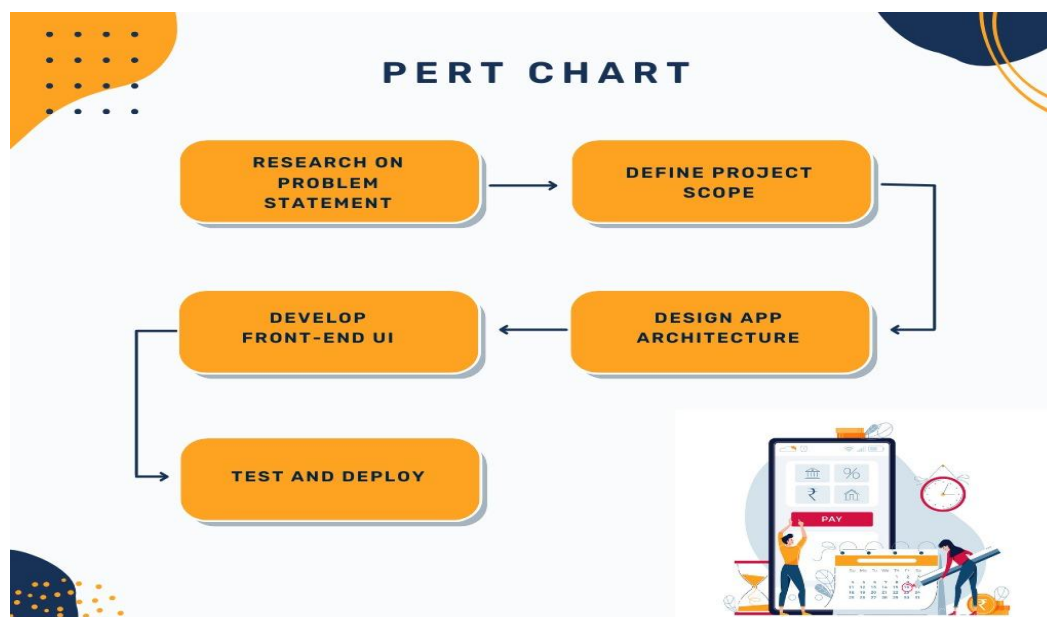
builds predictive and prescriptive analytics models and for this we utilize machine learning and AI algorithms for data analysis. Train models using historical data and continually improve them.

- Design an intuitive and user-friendly interface i.e Frontend UI. It ensure the app is responsive and accessible on various devices. Incorporate data visualization tools for effective communication and then we check the accuracy of the model for an app. It's essential to maintain a focus on data privacy, security, and compliance, especially when dealing with financial data.

#### **Phase 5: Test, Deploy and Maintenance**

- Develop the frontend of the app using cloud-native technologies.
- Implement security measures to protect user data.
- Conduct thorough testing, including functional, performance, and security testing.
- Maintain a focus on data privacy, security and compliance when dealing with financial data.

## **6. PERT CHART**



### **Future Scope**

The rapid expansion of Cloud Based AI application areas is having a huge impact in the environment that firms are operating in, both externally and internally. Externally, Cloud Based AI is making it possible to carry out tasks faster and at a lower cost.

Internally Cloud Based AI is shaping companies' relationships with their customers, other firms and society at large. Software will help them to track of their all sort of financial activities successfully.

## **Conclusion**

Cloud Based Artificial Intelligence has the potential to transform all organizations. The process by which this transformation happens can vary, but the steps will tend to follow the roadmap. Future computers of the future will understand not just how to turn on the switches but why the switches need to be turned on. Even further, they may one day ask us if we need switches at all.

Although Cloud Based AI cannot solve all your organization's problems, it has the potential to completely change how business is done. It affects every sector, from manufacturing to finance, bringing about never before seen increases in efficiency. As more industries adopt and start experimenting with this technology, newer applications will be invented. Cloud Based AI will bring a change even more widespread and sweeping than the introduction of computing devices. We are well on our way to tapping into this enormous potential, and as a result, the future holds better decision-making potential and faster.

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