# Integrating Expense Tracking with AI-Driven Investment Recommendations

**A PROJECT REPORT**

*Submitted by,*

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*Under the guidance of,*

**Dr. Shanthi S**

*in partial fulfillment for the award of the degree*

*of*

**BACHELOR OF TECHNOLOGY**

**IN**

**COMPUTER SCIENCE AND ENGINEERING -INTERNET OF THINGS**

**At**

GAIN MORE KNOWLEDGE
REACH GREATER HEIGHTS

**PRESIDENCY UNIVERSITY**

**BENGALURU**

**JANUARY 2025**

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## SCHOOL OF COMPUTER SCIENCE AND ENGINEERING

## CERTIFICATE

This is to certify that the Project report **"Integrating Expense Tracking with AI-Driven Investment Recommendations"** being submitted by "**Abdul Aman Khan, Rehan Ashraf, Mihir Suman**" bearing roll number(s) "**20211CIT0046, 20211CIT0051, 20211CIT0088**" in partial fulfillment of the requirement for the award of the degree of Bachelor of Technology in Computer Science and Engineering is a bonafide work carried out under my supervision.

**Dr. Shanthi S**
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## DECLARATION

We hereby declare that the work, which is being presented in the project report entitled **Integrating Expense Tracking with AI-Driven Investment Recommendations** in partial fulfillment for the award of Degree of **Bachelor of Technology** in **Computer Science and Engineering - Internet of Things**, is a record of our own investigations carried under the guidance of **Dr. Shanthi S, Associate Professor at School of Computer Science Engineering & Information Science, Presidency University, Bengaluru.**

We have not submitted the matter presented in this report anywhere for the award of any other Degree.

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# ABSTRACT

The Expense Tracker is a comprehensive financial management application designed to streamline expense tracking and budgeting for individuals and businesses. Leveraging the power of the MERN stack - MongoDB, Express.js, React, and Node.js - this application provides a seamless and efficient solution for managing financial transactions.

The backend, powered by Node.js and Express.js, ensures secure and fast data handling through RESTful APIs. MongoDB, a NoSQL database, is employed to store and retrieve financial data, offering flexibility and scalability as the user base grows. On the front end, react is utilized to create a dynamic and responsive user interface, facilitating a smooth user experience.

Core functionalities include user authentication for secure and personalized access, secure expense logging to maintain accurate financial records, category management and budget tracking for effective financial organization, and interactive charts offering real-time insights into spending patterns. A key innovation of the application is the PennyDrop feature, which leverages user income and expense data to provide personalized investment suggestions. Using data-driven algorithms, PennyDrop empowers users to make informed financial decisions by aligning their income with tailored investment opportunities.

This integration of expense tracking with actionable investment insights creates a holistic platform for financial management. The application is designed to be scalable, maintainable, and user-friendly, making it an ideal solution for individuals and businesses seeking an efficient tool for managing their finances and optimizing their investments.

# ACKNOWLEDGEMENT

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**Abdul Aman Khan**

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**Mihir Suman**