

Budget IQ: A Mobile-Based Solution for Rental Operations and Personal Finance

Yashin J. Biradar¹, Vedant S. Kijbile², Arya R. Gurav³, Shreyash S. Shirsat⁴, Ms. Gauri K. Kharat⁵

Students, Department of Computer Technology^{1,2,3,4}

Lecturer, Department of Computer Technology⁵

Sou. Venutai Chavan Polytechnic, Pune, Maharashtra, India

Abstract: *In the modern digital era, managing financial activities and rental operations has become increasingly complex due to the growing need for efficient data handling and real-time tracking. Users often face challenges in organizing expenses, managing rental processes, and maintaining proper financial records due to the lack of integrated and user-friendly solutions. To address these issues, this paper presents Budget IQ, a multi-role mobile application designed to provide a unified platform for rental management and personal finance tracking. The system supports multiple user roles, including property owners, tenants, and investors, offering functionalities such as property management, tenant requests, rent payment processing, document handling, and transaction tracking. Budget IQ leverages modern technologies such as Flutter for mobile application development, Firebase services for real-time database management, authentication, and storage, ensuring scalability, security, and efficient performance. The application also includes features like financial transaction analysis and an AI assistant module to enhance user experience and provide intelligent support. By enabling real-time data synchronization and role-based access control, the system ensures accurate data management and seamless interaction between users. The results demonstrate that Budget IQ effectively simplifies rental and financial operations while improving transparency and decision-making. Although the system has certain limitations, such as dependency on internet connectivity and data accuracy, it shows strong potential in enhancing digital financial management systems. Overall, Budget IQ serves as a comprehensive and practical solution that bridges the gap between rental management and personal finance tracking.*

Keywords: Mobile Application, Rental Management, Personal Finance, Flutter, Firebase, Cloud Database, Financial Tracking

