**SmartFin Tracker: AI-Based Intelligent Personal Expense**

**Management System**

**Problem Statement:**

Conventional expense tracking methods, such as manual entry in notebooks, spread sheets, or basic mobile applications, pose significant limitations in effectively managing personal finances. Users frequently encounter challenges including data inaccuracy, time-consuming record-keeping, inadequate security of sensitive financial information, and limited visualization of spending patterns. These issues are exacerbated by the lack of automated integration with digital payment sources and banking systems, resulting in fragmented and incomplete financial oversight. As lifestyles evolve towards cashless transactions, digital payments, and multiple financial platforms, there is a growing and urgent demand for a cost-effective, intelligent, and autonomous expense management system that can operate efficiently at the user level, requiring minimal manual intervention. This work directly addresses these pressing limitations by proposing an innovative, low-cost, and self-contained AI-powered Smart Expense Tracker for personal financial management. Utilizing modern AI technologies for automated expense categorization, predictive analytics, and real-time data synchronization, the system aims to provide a robust alternative to traditional expense tracking methods. Upon automatic detection and recording of any transaction, the information is securely analysed and visualized, providing clear insights into spending habits and budget adherence. The application is designed for continuous operation, offering seamless integration with popular banking services and e-wallets, and ensuring superior privacy, rapid response times, and energy-efficient data processing. Crucially, the entire process operates locally, safeguarding user privacy and sensitive information, making it an ideal solution for modern personal finance management in dynamic, digitally-driven environments.