

OCR in Finance: A Web-Based Approach for Personalized Expense Tracking and Budget Monitoring

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Abstract: Managing personal finances is a critical challenge in today's fast-paced world, as individuals often struggle to track daily expenditures and maintain a balanced budget. The complexity of manually recording expenses and adhering to financial goals without proper tools leads to inefficiencies and financial mismanagement. This paper presents the OCR in Finance: A Web-Based Approach for Personalized Expense Tracking and Budget Monitoring to address these challenges. The proposed system simplifies the process of expense tracking by integrating Optical Character Recognition (OCR) for automatic bill scanning and manual logging options. Users can categorize their spending into custom-defined categories, such as food, petrol, and clothing, and set monthly budget limits for each category. The system proactively monitors spending and sends real-time e-mail alerts when a budget limit is exceeded or when expenses surpass a user-defined percentage of their salary, ensuring timely oversight. Additionally, the platform generates periodic visual reports (graphs and charts) summarizing spending patterns and sends them via email for informed decision-making. A key feature of the system is an AI chatbot, which offers personalized financial advice, further enhancing user experience. The application utilizes modern web technologies, including HTML, CSS, JavaScript, and MySQL for backend data management. By providing an intuitive, user-centric approach, the project empowers individuals to better manage their finances, optimize spending, and work towards achieving their financial goals.

Keywords: Expense Tracking, OCR, Chatbot, Passbook Digitization, Budget Alerts, MySQL

