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A Novel Personalized Mobile Application for Systematically Monitoring Cash Transactions

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Today many people face difficulties in having no proper method or technique to monitor their daily personal expenses, which finally lead to great wastage of money unknowingly. This has been a problem due to people's busy lives. They do not have time to manually record personal expenses and even if manual methods are there, they may not be efficient and reliable. At present, many systems to manage expenses exist such as web applications, mobile applications software, and other financial management systems. However, the question arises as to whether these applications give the required output for the user and if they are secure for the user to use. The proposed system works as a solution for this problem. With this system, the user can monitor financial expenses with the use of receipt images, without providing delicate information like credit card details or any other bank account details. Simply, the user does not need to link their bank or credit card accounts to analyze their transactions. The only thing needed to be done is to take an image of a receipt and upload it to the application. With the use of various image processing techniques, the text in the uploaded image is recognized and further processing is done to the recognized text to obtain details such as total cost, date of purchase, and receipt category. The user will receive a display of all these details in the mobile application and also an alerting system that would warn if one's expense goes beyond limit.

Keywords: Natural Language Processing (NLP), information extraction, image processing, receipts, mobile application.