A Systematic Application to Manage Residential Rental and Maintenance in Sri Lanka

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The impact of the COVID-19 outbreak was felt across all real estate management. A slowdown in the house rental and maintenance management can be anticipated as a result of the lock-down and limitations in financing. The most severe impact is on the inability of handling the relationship between the house owners, tenants, and the handyman. Property management is a crucial component of being a landlord, but it is far from straightforward. An appropriate methodology was employed by the researchers to identify all the problems regarding real state property management through quantitative and qualitative data gathering procedures such as semi-structured interviews, face-to-face interviews, questionnaires, and direct observation of the selected sample. After analysing, it was identified that the house owner must screen tenants, collect rental fees, handle complaints, and keep tenants satisfied, among other things. In this pandemic situation, tenants faced more difficulties such as difficulty in finding a better house, paying monthly payments, paying utility bills, loss of connection with house owners, and finding the nearest handymen. Handymen suffered a lot mainly because of the inability to find work. Researchers' main aim is to give an appropriate solution for Sri Lankans to manage house rental and maintenance. By examining the responses, this investigation shows that a mobile application would be a better solution than implementing a web application. Iterative waterfall methodology was used for implementing this application. The researchers decided to develop this application using android studio. To enhance the effectiveness of the system by using 360 VR photography, Machine learning (ML)-based technologies, OTP/Fingerprint for User Verification and Geolocation, and Geo-tagging were used.

Keywords: house rental maintenance management, 360 VR photography, machine learning