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Employee Management Application for Dock Workers

K.D.H.C. Kariyawasam*, P.H.H.C Dewduni, W.B.H. De Silva, K.M.N. Apsara, W.A. Mohotti, W.K. Shajith

Department of Computer Science, Faculty of Science, University of Ruhuna

*Corresponding author: *hansanikariyawam33@gmail.com*

ABSTRACT

Software applications have been used in different industries to support the operations of employees with the advancement of information technology. They streamline employee management and payroll activities which are manually complex and time-consuming. These applications accurately calculate salaries, simplify employee tracking and generate reports for administration minimizing manual efforts and increasing productivity. Dock labour systems operate with a large pool of less educated and casual workers to have a high degree of operational flexibility. In contrast to educated workers who have the potential to adjust to new technologies, implementing information technology services for dockworkers needs careful requirement analysis and simple design that cater to end-users. Therefore, the objectives of this study are to design and implement an effective employee management application for a company that deals with non-tech dockworkers in calculating employee absences, leave, overtime, salaries, payslips and generating reports for owners to view employee data and attendance for strategic planning. The methodology used for the study includes systematic requirement analysis using interviews with employees and company owners, and Software-Development-Lifecycle. We have selected BPES company which provides services to all the container terminals in Sri Lanka. It hires more than one hundred employees to provide the service and dealt with manual management processes wasting time. Thus, the proposed novel web-based solution for BPES design to efficiently handle the employee management, payrolls and administration support dealing with dockworkers. The front end of the proposed solution uses HTML, CSS, JS and jQuery to give simple and effective user interfaces while the back end of the system is developed using Apache server, PHP and MySQL database server which is free and open-source to support low cost. A thorough system testing by developers and acceptance testing by users was done to validate the acceptability. The results revealed end-users requirements are satisfied by the proposed solution.

Keywords: *Employee Management System, IT, Web-based*