

# **Cloud based Attendance Management and Information System**

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**Abstract:** *This dissertation is on the development of a cloud-based attendance management and information system. This work comes as a solution to the challenges of time theft and error prone attendance data analysis faced by using the manual method. The system has features like staff overtime calculation, staff/student attendance percentage calculation, meal orders, information dissemination through SMS and email which contributes to its uniqueness. The work is made up of two sections; the Hardware subsystem and Software subsystem. The hardware section involves collection and transmission of attendance data via the use of a Radio frequency identification tag reader and tag, interfaced with an ESP-12E Node microcontroller unit. The software section incorporates the design and development of a transaction processing and management information system which would handle the processing, analysis and storage of attendance data received from the hardware section via Hypertext transfer protocol (HTTP) requests. All the modules developed, were tested and attendance data analysis was carried out to ensure that the system met all the requirements.*

**Keywords:** Cloud computing, Attendance management system, Radio frequency identification, Information system, overtime

