

ATMOS

Attendance Monitoring System

S6 – Mini Project

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ABSTRACT

ATMOS is a mobile application that enables its users to monitor and validate attendance and also visualize its data in statistical and graphical formats, by utilizing ML and IoT Technologies. It is developed with the intention to monitor attendance in multiple ways including (but not limited to) Bar-Code scanner, QR scanner, physical input, facial recognition. And also to validate the entry using its backend validation data. Additionally, it is also designed to facilitate leave/absence requests and to provide the summary of performance of individuals/groups upon request.

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EXISTING COMPETITION



- 1. Simple attendance management systems**
 - physical entry , no validation facility

- 2. Employee Attendance & Payroll**
 - Major competitor
 - Mostly aimed at businesses and employee management
 - Has live tracking of employees location
 - payroll management
 - does not speak of multiple ways to log in attendance
 - 3.9/5 rating in Play Store

PROPOSED SYSTEM

1. Attendance monitoring system capable of taking attendance in multiple ways.
-QR /Barcode/Facial/Finger print recognition
2. Individual/Group performance summarizer.
3. Leave/Absence Scheduler
4. User Login/Verification System
5. Graphical/Statistical Visualizer

03

REQUIREMENTS

Software

- Mobile Application Development Tools
 - *Flutter
 - *Dart
 - *Figma/Canva
- Backend Processing tools
 - *Firebase
 - *MongoDB

Hardware

Handheld Mobile Device.
camera
scanner

Other Tools

ML Libraries like
Tensorflow/pandas/Xamarin
Deep Learning Frameworks.

Merits

Multiway Attendance Monitor
Entry Verification
Summarizer
Leave Recorder
Easy Management
Easy to implement the basics

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DeMerits

Difficult to implement the
Complex Verification System.
Database Integrity issues.
Security Problems.
ML Training errors.
Time Constraints.

Thank You